# Appendix A

## NOP and Comments Received

COUNTY OF HUMBOLDT
PLANNING AND BUILDING DEPARTMENT

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# NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT

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| Date: | April 4, 2017 |
| To: | Interested Parties<br>All Recipients on the Distribution List |
| Lead Agency: | County of Humboldt Planning & Building Department |
| Contact: | Steven Lazar<br>Humboldt County Planning & Building Department<br>3015 H Street<br>Eureka, CA 95501 |
| Project Title: | Amendments to Humboldt County Code Regulating Commercial Cannabis Activities |

**NOTICE IS HEREBY GIVEN THAT** the County of Humboldt (County), as Lead Agency under the California Environmental Quality Act (CEQA), has prepared this Notice of Preparation (NOP) for a Draft Environmental Impact Report (EIR) for proposed amendments to the Humboldt County Code regulating cannabis activities authorized under state law (Project). The NOP includes a project background, description, maps, and an overview of the potential impacts that will be addressed in the EIR. This NOP was prepared In accordance with Section 15082 of the CEQA Guidelines.

**THE PURPOSE OF THIS NOTICE IS:** (1) to serve as the NOP to provide interested parties, including members the public, potential Responsible Agencies, agencies involved in funding or approving the Project, and Trustee Agencies responsible for natural resources affected by the Project, with sufficient information to provide meaningful responses as to the scope and content of the EIR; and (2) to advise and solicit comments and suggestions regarding the preparation of the EIR, environmental issues and alternatives to be addressed in the EIR, and any related issues, from interested parties.

**A 30-DAY NOP REVIEW PERIOD:** The NOP will be circulated for a 30-day review period from April 6, 2017 to May 9, 2017. The County of Humboldt Planning and Building Department welcomes responsible and trustee agency input during this review.

Written comments should be submitted or postmarked no later than **5:00 p.m. on Monday, May 9, 2017**. Please indicate a contact person in your response and send your comments to:

slazar@co.humboldt.ca.us

or

Steve Lazar
Humboldt County Planning & Building Department
3015 H Street
Eureka, CA 95501

**Scoping Session:** The County will hold one or more scoping sessions at date(s), time(s), and place(s) to be announced to 1) inform the public and interested agencies about the proposed Project; and 2) solicit public comment on environmental issues and alternatives to the Project to be considered in the EIR.

**DOCUMENTS AVAILABLE FOR PUBLIC REVIEW:** The NOP and related Project documents are available for public review at the following location:

County of Humboldt Planning & Building Department
3015 H Street
Eureka, CA 95501

The NOP and related Project documents are also available for public review online at:

https://humboldtgov.org/2308/Cannabis-EIR

**PROJECT LOCATION AND SETTING:**

The project location, hereafter referred to as the planning area, is identified as the unincorporated areas of Humboldt County. With 3,570 square miles (nearly 2.3 million acres) of land, Humboldt County is the fourteenth largest county in California as well as one of the more rural counties.

The County is located in the northern coastal region of California between Del Norte County to the north, Mendocino County to the south, Trinity and Siskiyou Counties to the east, and the Pacific Ocean to the west. Humboldt and bordering counties Trinity and Mendocino are often referred to as "The Emerald Triangle". With a reputation for marijuana cultivation spanning nearly half a century, this region is believed by many to be the largest producer of cannabis in the country, and possibly the world.

There are seven incorporated cities in the County (Trinidad, Eureka, Arcata, Blue Lake, Fortuna, Ferndale, and Rio Dell) occupying 24,040 acres, or just about one percent of the total land area. Approximately 30 percent of the County is either in public ownership or tribal lands. The National Forests, National Parks, and public land controlled by the Bureau of Land Management

totals 110,000 acres, the State Parks System includes 76,500 acres, and other state lands comprise approximately 8,500. Tribal lands total approximately 127,500 acres (including reservations, Rancherias, and other trust lands), or 5.7 percent of the total land area in the county. 2016 data shows a county-wide population of 135,116. Slightly more than half (71,830 persons) of these residents live within unincorporated areas of the county, which are comprised of a diverse range of settings, including small rural communities, urbanized areas, as well as agricultural areas characterized primarily by dairies, cultivation of row crops, greenhouse crops, and orchards and ranch operations. Agriculture, timber, tourism, and education/government are strong industries in the County.

Humboldt County includes significant portions of the Klamath River, Trinity River, Mad River, Van Duzen River, Mattole River, Eel River, Bear River, and Redwood Creek watersheds, and their tributaries. Historically, these rivers provided spawning grounds for salmon and steelhead runs that were central to the culture of local California Native American Tribes, and once supported a thriving commercial fishing industry along the northern California coast, now in serious decline.

Approximately seventy-five percent of the county's 2.3 million acres are forested coastal mountains. About fifty percent of this acreage is held as private commercial timberland. The timber industry economic activity peaked in the 50s and 60s, but is still a significant contributor to the local economy. In the period 2000-2012 Humboldt County ranked first or second in timber harvest among all California counties, with 16-20% of the total. Though forests are a defining feature, agriculture is a key part of the landscape and remains an important base industry. Approximately twenty percent of Humboldt County (460,000 acres) is host to conventional agricultural uses, with livestock and dairy operations predominating.

The Project involves proposed adoption of countywide regulations and policies to govern commercial cannabis activities, as defined and authorized under state law concerning medical cannabis or adult use of marijuana. This includes: cultivation, processing, distribution, manufacturing, testing, transportation, and retail sales within select zoning districts. The new regulations may include a licensing ordinance and zoning ordinance amendments as well as amendments to other areas of county code. Amendments to the Local Coastal Program (LCP) may also be required for activities to occur in the Coastal Zone. The new regulations may supersede, augment, or substitute for existing provisions in County Code regulating these activities, including but not limited to sections 313 and 314-55 of the code which regulate commercial activities involving the cultivation, manufacturing, and distribution of cannabis for medical use, as well as the indoor and outdoor cultivation of medical cannabis for personal use by qualified patients.

The description in the EIR of the existing conditions of cannabis cultivation in the County, called the "baseline", has been informed by the County's recent registration and time-limited permit application process that closed December 31, 2016, which resulted in over 2,300 initial applications. Approximately 75% of these applicants claim to have historically cultivated cannabis and are seeking a permit for continued cannabis operations. In some cases, applicants are choosing to retire and remediate existing cultivation sites, and are requesting to relocate to

new properties which qualify to receive them, with the benefit of allowing for up to a quadrupling of total cultivation area, or 20,000 square feet of cultivation, whichever is less. A smaller percentage of the total applications received are linked to projects proposing to establish new cultivation sites, primarily in agricultural areas determined to be most suitable for cultivation with the least adverse attendant environmental impacts. The smallest percentage of applications received involves proposals for indoor cultivation, or the development of manufacturing operations or wholesale distribution facilities. Additionally, the baseline also includes existing commercial cannabis operations for which no permit applications have been submitted. The EIR will assume that some portion of this population will seek to participate in the legal, regulated marketplace, and others will choose to remain in the black market.

A study of 2012 satellite imagery conducted by Butsic and Brenner[1], revealed the presence of 4,428 outdoor cultivation sites within 60 of the 112 subwatersheds (Hydrologic Unit Code 12) visible in Humboldt County. In 2015, during a presentation before the Humboldt County Board Supervisors, Mr. Butsic confirmed that the 60 watersheds were chosen as part of a random sample and that it was therefore reasonable to extrapolate almost double that number existed within Humboldt County in 2012[2]. Anecdotal information received from observations by local regulatory and enforcement agencies suggests a pattern of near-exponential growth in the industry during the past decade, with some estimates of as many as 10,000 – 15,000 cultivation operations currently in existence.

**PROJECT BACKGROUND:**

*Notable Local and State Legislative History*

In November 1996, California voters approved Proposition 215, the Compassionate Use Act, providing a limited defense against prosecution for possession and use of marijuana where medical use has been recommended by physician.

In September 2003, the state legislature adopted SB 420 (Vasconcellos) establishing the medical marijuana program for authorized patients and collectives and cooperatives to cultivate, possess and use medical marijuana under limitations protected from prosecution.

In August 2004, the Humboldt County Board of Supervisors adopted Ordinance No. 2328 to provide for local implementation of Proposition 215 and SB 420.

In December 2011, the Humboldt County Board of Supervisors adopted Ordinance No. 2468, providing limitations for the indoor cultivation of medical marijuana for personal use (Phase I), and Ordinance No. 2469, establishing a moratorium for processing and acceptance of applications for medical marijuana dispensaries. The moratorium was subsequently extended and the permitting of dispensaries prohibited by Ordinance No. 2511 in December 2013.

[1] Butsic, Van and Jacob C. Brenner. "Cannabis (Cannabis sativa or C. indica) Agriculture and the Environment: A Systematic, Spatially-Explicit Survey and Potential Impacts." Environmental Research Letters, 2016; 11 (4): 044023 DOI:10.1088/1748-9326/11/4/044023.

[2] Mintz, Daniel. "Researcher: 8,400 Grow Sites in County." Mad River Union, January 27, 2016, http://www.madriverunion.com/researcher-8400-grow-sites-in-county-2/.

In October 2014, the Humboldt County Board of Supervisors adopted Ordinance No. 2523 providing limitations for the outdoor cultivation of medical marijuana for personal use on parcels 5 acres or less (Phase II).

In August 2015, the Humboldt County Board of Supervisors adopted Ordinance No. 2534 establishing regulations for permitting dispensaries (Phase III), but which did not go into effect until July 2016 pending a separate ordinance to rescind Ordinance No. 2511.

In 2015, the California Legislature passed the Medical Cannabis Regulation and Safety Act (MCRSA), enabling licensing for commercial medical cannabis activities at the state level (subject to local approval). The law went into effect on January 1, 2016; however, the state licensing program will not begin until January 2018. In the interim, local governments may adopt ordinances to permit or license local cannabis cultivation and other commercial enterprises in preparation for state licensing, or prohibit such operations.

In January 2016, Humboldt County was the first local government in the state to adopt a comprehensive local regulatory program for commercial medical cannabis. The law known as the Commercial Medical Marijuana Land Use Ordinance (CMMLUO) Ordinance No. 2544 (Phase IV) took effect on February 26, 2016, and included a limited time period for application submission that ended on December 31, 2016.

In July 2016, the Humboldt County Board of Supervisors adopted Ordinance No. 2554, rescinding Ordinance No. 2511 and amending Ordinance No. 2534 (Phase III Dispensary Regulations) and allowing for commercial medical cannabis dispensaries in the County.

In September 2016, the Humboldt County Board of Supervisors adopted Ordinance No. 2559 making clarifying and corrective amendments to the CMMLUO Ordinance No. 2544 (Phase IV).

The state legislature adopted a number of amendments to MCRSA, including SB 837, AB 2679, and AB 2516 with a range of new regulatory requirements.

On November 8, 2016, California Voters approved Proposition 64, the Adult Use of Marijuana Act (AUMA), authorizing a state licensing program for commercial marijuana activities similar to MCRSA, but not limited to medical cannabis. AUMA allows local governments to enact ordinances to prohibit or regulate such activities, with certain limitations.

The proposed amendments to the Humboldt County Code will both extend the application period for commercial medical cannabis activities, and will broaden the regulations to include activities authorized by AUMA.

**PROJECT DESCRIPTION:**

The proposed amendments to the Humboldt County Code including provisions previously established by Ordinance Nos. 2554 and 2559 are intended to achieve the following regulatory objectives:

- Repeal the deadline for applications, and continue to accept applications under Ordinance No. 2559 for medical cannabis without significant changes.
- Expand the scope of the Ordinance Nos. 2554 and 2559 to include commercial marijuana operations for adult recreational use now authorized by AUMA, under the same general regulations as medical cannabis.
- Expand the areas where new cultivation or expansion of existing cultivation sites will be permitted to locations with or without prime agricultural soils that are planned and zoned for agricultural use, meeting specific criteria to be established:
  - natural slopes 15 percent or less
  - in lower portions of principal watersheds where established riparian water rights exist
  - with viable local on-site water source, including:
    - rainwater capture and storage
    - surface water diversion and storage under standard forbearance period or refined or dynamic period set by flow data or localized water management plan
    - groundwater, where known to be non-hydrologically connected
  - located on or within 1 mile of county-maintained roads
  - or located on private road systems meeting the category 4 road standard
  - with on-grid power or alternative energy source (solar, wind, or micro-hydro)
- Restrict or prohibit generator use
- Limit new cultivation or expansion to areas not requiring conversion of timberland
- Provide for micro-business license type under AUMA within 2 miles of state highways
- Apply special requirements/limitations for projects located within spheres of influence or community areas
- Provide consistency with state law amendments to medical cannabis regulations (MCRSA)
- Provide consistency with state agency regulations to implement MCRSA and AUMA by Departments of Consumer Affairs, Food & Agriculture and Public Health, or other agencies
- Provide consistency with forthcoming interim principles and guidelines for diversion and use of water for cannabis cultivation to be prepared by the State Water Resources Control Board in consultation with the Department of Fish & Wildlife
- Provide for additional amendments to existing ordinance provisions including: application requirements, performance standards, general provisions, and permit types
- Amendments to other relevant provisions of Humboldt County Code including but not limited to:
  - County Code Enforcement provisions
  - Humboldt County Streamside Management Area Ordinance
  - County Business License provisions

## SUMMARY OF KEY ENVIRONMENTAL ISSUES TO BE ADDRESSED IN EIR

Pursuant to Section 15064 of the CEQA Guidelines, the discussion of potential project effects on the environment in the EIR will concentrate on those impacts that the County has determined may be potentially significant. The most detailed analysis will evaluate the project, however project alternatives will also be evaluated. The EIR will evaluate the cumulative impacts of the project when considered in conjunction with other related past, present, and reasonably foreseeable future projects.

The County has determined that the proposed Project could potentially result in environmental impacts in the following topic areas:

- Aesthetics and Visual Resources
- Hazards and Hazardous Materials
- Agricultural and Forestry Resources
- Hydrology and Water Quality
- Geology and Soils
- Land Use and Planning
- Public Services
- Cultural Resources
- Tribal Cultural Resources
- Air Quality
- Energy Use and Conservation
- Greenhouse Gas Emissions & Climate Change
- Biological Resources
- Utilities and Service Systems

These topic areas will be evaluated in the EIR, and feasible and practicable mitigation measures will be recommended to reduce any potentially significant impacts. Brief descriptions of proposed analyses follow:

**Aesthetics**: Humboldt County is renowned for the scenic quality of its varied topography which includes: coastline, forests, rivers, and agricultural areas. Due to its remote setting, the county has been host to a robust and varied landscape of agricultural uses since nearly its inception. Many of these areas remain actively in agricultural production today as row crops, vineyards, and indoor flower greenhouses. Grazing lands comprise the largest percentage of the county's agricultural landscape. There are no officially designated state scenic highways in Humboldt County, although Highways 101, 36, 299, and 96 are eligible for designation. This EIR section will qualitatively describe the County's current visual resources, consistent with the County General Plan and General Plan Update setting information. The EIR analysis will describe how project implementation could generally change aesthetics within the County, especially from important vantage points and within potential cultural landscapes. Changes may include fencing and other visual screens that block views of grow operations, new or additional facilities related to processing and transportation, as well as additional or expanded outdoor cultivation activities. Siting requirements (i.e., required distances between project-related uses and "sensitive uses," setback specifications from public or private use types, and retention of CMMLUO Section 55.4.11 regarding lighting standards) that are established within the project will be reflected in the EIR's analysis. The analysis will also include a discussion of light- and glare-related impacts and a discussion of potential impacts to the existing viewshed. Consultation with the Coastal Commission staff may reveal the need for a varied approach to the protection of scenic resources within the Coastal Zone.

**Agriculture and Forestry Resources**. The EIR will evaluate the effects of continuing to accept permit applications by existing operators engaged in cannabis cultivation on lands planned and zoned for agricultural and timber land use activities. The majority of lands in the county are host to forest resources meeting the definition of 'timberland' found under section 4526 of the Public Resources Code (Forest Practices Act). To help arrest the pattern of private non-industrial timberland conversion which accompanied the growth of the cannabis industry during recent years, Ordinance Nos. 2544 and 2559 prohibited new or expanded cannabis cultivation on lands zoned 'TPZ' and limited permits to the area of existing cultivation as of January 1, 2016. New or expanded cultivation activities were confined to agriculturally zoned lands over 5 acres in size that are host to prime soils and slopes of 15 percent or less. The EIR will analyze the effects of removing the 'prime soils' requirement for new or expanded cultivation proposals, relieving pressure on these limited agricultural resources, while helping align with common local cultivation practices which rely upon the import of soil to the cultivation site. The Department of Conservation has affirmed cannabis' status as an agricultural product as declared under MCRSA, and clarified that the cultivation of cannabis on lands enrolled in the Williamson Act program is not prohibited.[3] In December 2015, during their review of the CMMLUO, the Humboldt County Williamson Act Advisory Committee found cannabis cultivation to be a compatible use on lands subject to Williamson Act contracts.

**Air Quality/Greenhouse Gas (GHGs).** The project is located within the jurisdiction of the North Coast Unified Air Quality Management District (NCUAQMD). The EIR will evaluate the potential criteria pollutant operational emissions of the project. The air quality analysis will document existing conditions and local, state and federal regulatory standards and thresholds, and describe attainment/non-attainment pollutants for the North Coast Air Basin. The estimated emissions will be compared against the district-accepted thresholds for reactive organic gases, nitrogen oxides, and particulate matter. Humboldt County is in attainment of all federal and state criteria air pollutant standards, except for annual emissions of particulate matter larger than 2.5 microns but smaller than 10 microns ($PM_{10}$), for which the entire North Coast Air Basin, including Humboldt County, is currently designated as a non-attainment area. The 2015 Estimated Annual Emissions from Almanac Emission Projection Data maintained by the California Air Resources Board reveals that fugitive dust from unpaved roads comprises 58.2% of annual $PM_{10}$ emissions in Humboldt County.

The EIR will qualitatively evaluate potential odor impacts associated with the project. Cannabis cultivation and processing operations have odors associated with them, especially during the final parts of the cultivation cycle (typically beginning in August and continuing until harvest in October or November). Generally, the larger the size of cultivation and processing activities, the greater the potential for odor to be evident. In addition, the establishment of micro-businesses in the County could become focused sources of odors from cannabis cultivation/processing and on-site consumption.

[3] Department of Conservation, Division of Land Resource Protection. "Cultivation of Medical Marijuana and the Williamson Act." July 2016, http://www.conservation.ca.gov/dlrp/lca/Documents/WA%20Medical%20Marijuana_7.15.2016.pdf.

The analysis of GHGs will include a brief discussion on the current state of the science (e.g., Intergovernmental Panel on Climate Change's [IPCC] Fourth Assessment Report), current General Plan Update and Climate Action Plan development by the County, along with applicable regulatory framework and relevant guidance (e.g., AB 32 and SB 32). The analysis will evaluate the project in terms of its consistency with California's GHG reduction goals, recommendations contained in the AB 32 Scoping Plan, and other recent guidance documents for determining whether project-generated GHG emissions would be a cumulatively considerable contribution to the global impact of climate change. The EIR will include analysis of changes in carbon sequestration potential resulting from conversion and substitution of existing vegetation and/or agricultural activities occurring in tandem with the establishment or enlargement of outdoor and mixed light cultivation areas. Analysis will also review and consider benefits from project-driven reforestation performed during the retirement and remediation of existing cultivation sites in accordance with regulatory incentives provided under the CMMLUO. The EIR will evaluate Vehicle Miles Traveled (VMT) linked to management of cannabis cultivation sites within the county, in association with an analysis of attendant GHG emissions. The EIR will also evaluate potential GHG emissions from portable generators which may be associated with cannabis cultivation sites not located on the electrical grid, and from grid connected indoor and mixed light cultivation sites. An analysis of energy consumption associated with commercial cannabis activities will be performed in accordance with Appendix F of the CEQA Guidelines. This will include development of potential conservation measures.

**Biological Resources.** The EIR will evaluate potential direct and indirect biological impacts of the proposed ordinance amendments. Impacts may include direct loss of vegetation and habitats primarily due to grading and vegetation removal performed in association with the development of new cultivation sites or expansion of existing cannabis cultivation sites and associated infrastructure. This includes roads, accessory structures used for on-site processing or storage, installation and maintenance of irrigation systems including alterations to stream morphology associated with in-channel disturbances, above and below ground storage of water used for irrigation, as well as installation of security fencing. Other project features with potential impacts to wildlife include: improper use of rodenticide and pesticides, loss or reduction of riparian habitat, noise resulting from increased human activity in remote areas as well as noise from generator use, installation of fencing which interferes with or obstructs movement of terrestrial species, increased use of night-lighting associated with security measures as well as light spillage from mixed-light cultivation. Indirect impacts of chief concern surround those with the potential to affect in-stream habitat including: discharge of sediment and nutrient-rich runoff from cultivation sites to nearby watercourses, summertime dewatering of streams where local cannabis irrigation demands involve use of surface water diversions and hydrologically connected wells[4], reduced input of large woody debris within lower portions of the watershed, and increases in overall water temperature and loss of cold water refugia linked to low streamflows and reductions in riparian vegetation and associated shading.

[4] Scott Bauer, et. al.. "Impacts of Surface Water Diversions for Marijuana Cultivation on Aquatic Habitat in Four Northwestern California Watersheds." PLoS ONE 10(3): e0120016, March 18, 2015, http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0120016.

**Cultural Resources and Tribal Cultural Resources.** Development and management of cannabis cultivation sites, including support structures and infrastructure, has the potential to impact cultural resources. The EIR will evaluate the potential for impacts on unknown subsurface cultural resources, including the disturbance of human remains and impacts to known historic resources. Though the majority of potential historical resources in the County remain largely unsurveyed and undocumented at this time, a review of listed historical structures and sites will be included, as well as a discussion of potential cultural landscapes within areas of permit activity. An overview of local history, before settlement (pre-1850) and afterward (1850 to present) will be provided as well as a brief discussion of applicable federal, state, and local policies and regulations, including methods used to identify and evaluate cultural resources and criteria for determining significance, identification of impacts, and development of mitigation measures.

The County contains many archaeological, paleontological, and Native American cultural sites and historic resources, including numerous unrecorded archaeological sites and historic resources. Potential impacts to Tribal Cultural Resources will be evaluated in coordination with opportunities for tribal consultation initiated pursuant to Section 21080.3.1 of the Public Resources Code. Information concerning sites, features, practices, cultural landscapes, sacred places, or objects with cultural value to a California tribe will be incorporated into the EIR's analysis. This includes important locations, routes, and riverscapes utilized for resource gathering and ceremony, such as tan oak and oak woodland, fishing locations, and grasses used in basketry, as well as the role of prescribed fire.

**Hazards and Hazardous Materials.** Storage and use of hazardous materials at locations host to cultivation activities is not uncommon. Additionally, certain manufacturing processes include the use of volatile solvents in association with extraction of cannabis oils. If improperly stored or utilized, all of these materials can result in potentially significant environmental effects. Additionally, nearly 9 out of 10 existing cultivation sites occur in remote areas of the county characterized by high or very high fire hazard severity zones. The EIR will assess hazards and hazardous materials impacts from cultivation and manufacturing sites by considering storage, handling, and application practices of hazardous materials, as well as review hazards related to permitting new and ongoing commercial cultivation activities within areas of wildland fire risk.

**Hydrology and Water Quality.** The existing CMMLUO includes several provisions aimed at protecting water quality, including that all cultivation sites comply with the 12 Standard Conditions outlined under the North Coast Regional Water Quality Control Board Waiver of Waste Discharge requirements (Order No. 2015-0023), administered as part of the Cannabis Cultivation Waste Discharge Regulatory Program (CCWDRP). As the agency with the greatest regulatory authority and oversight over water quality matters, the work of the North Coast RWQCB and the CCWDRP represents the most authoritative evaluation and treatment of cannabis cultivation water quality considerations to date. The program "does not cover or authorize development of new cannabis cultivation sites", but instead applies to *Cannabis Cultivation and Associated Activities or Operations with Similar Environmental Effects*, including associated actions involving remediation, cleanup, and restoration of existing sites compelled by the order. The EIR will primarily focus on analysis of water quality impacts associated with

installation of new cultivation sites and associated infrastructure, including changes in run-off volumes and drainage patterns, pollutant discharges to surface and ground waters, and potential flooding hazards and downstream flooding impacts. Using information derived from recent permit applications being sought by operators of existing cultivation sites, the EIR will include a review of common water sources, as well as water storage and use broken down by types of cultivation and methods of irrigation. An analysis will also be performed of changes in current water use resulting from potential crop substitution or conversion to accommodate cannabis, as well as changes in the use of existing commercial buildings to accommodate indoor cannabis cultivation or manufacturing activities.

**Geology and Soils.** The EIR will evaluate seismic issues as well as any risks of soil instability and other geotechnical hazards that could impact existing and future cultivation sites and associated structures and infrastructure. The majority of existing cultivation sites are located within interior portions of the county characterized by steep topography, increased erosion risk, and evidence of historic landslide activity. Existing sites typically feature unpermitted grading and volumes of ground disturbance exceeding local grading permit thresholds (50 cubic yards), with measures for erosion control either absent or inadequate. Improper site development or maintenance can result in erosion and transportable sediment and create or exacerbate unstable features. Water resource protection or cleanup plans prepared in association with enrollment under the CCWDRP contain requirements for implementation of appropriate Best Management Practices (BMP's) to prevent and minimize wind and water erosion of soils, including: installation of adequate road ditch relief drains or rolling dips where necessary, usage of sediment control devices such as check dams or sand bag barriers when necessary to disperse ditch water, and compaction and contouring of stored soil spoil piles to mimic the natural slope contours. Proper implementation of BMP's at existing sites significantly reduces the potential for substantial soil erosion or the loss of topsoil. The EIR will primarily focus on analysis of direct, indirect, and cumulative geologic hazards and impacts posed by new or expanded cannabis operations, including grading for terracing and access roads which may have the potential to increase erosion, landslides, unstable slopes, sedimentation, and seismic hazards. Analysis will also consider beneficial effects from ongoing implementation of the regulatory program, and eliminating or limiting illegal grading and ground disturbance in sensitive areas.

**Land Use and Planning.** The EIR will evaluate the proposed amendments for consistency with existing local land use policies and regulations, including applicable habitat conservation plans, local coastal plans, and airport land use plans. Intensified commercial agricultural operations have the potential for conflicts with nearby residential uses related to noise, odors, dust, security, and traffic associated with development and operation of cannabis cultivation and other commercial activities. In addition, the proximity of some cultivation operations to existing residential uses can result in conflicts between County policies which promote agricultural uses and those designed to protect the quality of life and neighborhood character within rural lands. The Land Use and Planning analysis in the EIR will address commercial cannabis activities in each zoning district where they are allowed and consider effects related to conversion or displacement of existing land uses. Analysis of policy consistency will include: use of space within existing industrial and commercial areas, resource preservation and protection, localized traffic concerns and parking demand, compatibility within discrete community planning areas and spheres of influence, and other land use issues of possible community concern while acknowledging the priority placed on conventional commercial

agricultural uses and timber production in certain zone districts. The EIR will qualitatively describe existing land use within the County and evaluate any potential for division of existing communities.

**Public Services.** The EIR will evaluate whether the proposed amendments could result in impacts on public services including fire protection, police protection, schools, and other public facilities. Most of the County is designated as a High or Very High Fire hazard area by the California Department of Forestry and Fire Protection (CalFire). In the event of fire, emergency access to cannabis cultivation and manufacturing sites is critical to ensure adequate and timely response. The County is served by a number of fire districts and by CalFire.

Local law enforcement is provided primarily through stations operated by the Humboldt County Sheriff's Office and coordination with City Police Departments, as well as the California Highway Patrol. Development permitted under the proposed amendments may incrementally increase demand for public services, particularly fire protection. Incremental increases in demand for law enforcement along with other services, such as road maintenance, may also occur. The EIR would provide an overview of public service issues and focus on services that could be adversely affected. The EIR would assess fire protection issues and potential increases in demand for other public services associated with existing and new cannabis cultivation sites, such as access, response time, and defensible space while accounting for existing regulations and development standards.

**Utilities & Service Systems.** The EIR will evaluate direct and indirect effects on utilities serving new and existing cannabis cultivation sites as well as commercial and industrially zoned areas where manufacturing, processing, and distribution facilities may be developed. The Pacific Gas and Electric Company (PG&E) is the principal provider of electricity and natural gas to the majority of the County. The proposed amendments may result in an increase in demand for water and power to support commercial cannabis activities and may generate solid waste and wastewater requiring treatment. There are 12 municipal wastewater service providers and 24 municipal water service providers currently operating within the unincorporated areas of the county. Nearly all of the County's municipal water providers rely upon local surface (streams and reservoirs) and groundwater sources, which are fed entirely by precipitation and do not receive any imported water. While most outdoor and mixed light cultivation sites are located in rural areas served by private wells, surface water diversions, and septic systems, other commercial activities (manufacturing, processing, and distribution) are likely to place new demands on municipal water sources and utilize existing infrastructure. The EIR will identify and analyze impacts of cannabis cultivation sites on existing utility systems and services, including increases in generation of cultivation-related waste such as the disposal of spent bulk soil imported to cultivation sites.

**Cumulative Impacts.** Potential cumulative impacts of the Project will be addressed within the EIR consistent with CEQA Guidelines Section 15130.

**Other CEQA Issues.** The EIR will provide a brief discussion of less than significant and insignificant issues, which at this time are expected to include transportation/traffic, recreation, mineral resources, and population and housing. CEQA allows a lead agency to limit the detail of discussion of the environmental effects that are not considered potentially significant. (PRC Section 21100, 14 CCR Sections 15126.2[a] and 15128.)

**Alternatives.** In accordance with the State CEQA Guidelines (14 CCR Section 15126.6), the EIR will describe a range of reasonable alternatives to the proposed project that are capable of meeting most of the Project's objectives, and would avoid or substantially lessen any potential significant effects that may be identified. The EIR will provide an analysis of the No-Project Alternative and will also identify the environmentally superior alternative. The alternatives will include analysis of a reduced alternative that is more permissive than the Project, and also a more restrictive alternative to ensure the County has a range of scenarios to consider during future discretionary proceedings. The EIR will also identify any alternatives that were considered but rejected by the lead agency as infeasible and briefly explain the reasons why.

City of Fortuna
P.O. Box 545 • Fortuna, CA 95540
www.friendlyfortuna.com

May 9, 2017

Steven Lazar
Humboldt County Planning & Building Department
3015 H Street
Eureka, CA 95501

RE: Notice of Preparation of an Environmental Impact Report for Amendments to Humboldt County Code Regulating Commercial Cannabis Activities

Dear Mr. Lazar:

Thank you for the opportunity to respond to the Notice of Preparation for the Environmental Impact Report for Amendments to Humboldt County Code Regulating Commercial Cannabis Activities. The City and County share a common jurisdictional boundary, and as a result, the County's codes allowing cannabis activities within the boundary area have a heavy influence on City residents and City infrastructure. In addition, Fortuna has adopted a City-wide comprehensive prohibition on marijuana activities, banning all activities except for those uses that are specifically allowed by AUMA, and the County's codes and activities are in conflict with the City's codes. Due to the project's proximity to the City, it is anticipated that traffic, noise, odors, and a host of other issues will affect City residents. The City would like to request that the following items be addressed in the EIR.

Land Use

Fortuna has adopted a City-wide prohibition on all marijuana activities, except for those that are preempted by State law. The County's existing ordinance and proposed amendments are in conflict with and inconsistent with the City's ordinance. The County's ordinance affects all of the City residents along the City/County jurisdictional border, and it affects all of the County residents within the City's Sphere of Influence that may be considered for annexation in the future. The County's ordinance also affects the City's residents where cannabis is allowed on adjoining roadways (in particular, Rohnerville Road, Drake Hill Road, and Loop Road), and they will experience visual impacts on a daily basis.

The County's cannabis ordinance and proposed expansion are proposed within the City's Sphere of Influence, which is considered a potential annexation area. Fortuna has completed three annexations under the Fortuna General Plan 2010-2030, and it is likely that additional areas will be annexed in the future. The County's cannabis ordinance impairs the City's ability to expand into the sphere of influence and limits the City's ability to grow over time in accordance with the General Plan as those properties will be permanently committed to commercial agricultural activity. Based on an estimated number of 10,000-15,000 cultivation sites County-wide, and the

agricultural land uses surrounding the City, expanding the permits could result in a significant number of sites around the City that could be placed in cultivation. Without a limit to the number of permits, it could result in nearly all of the vacant land around the City being converted, changing the landscape, reducing development potential, and converting prime agricultural land to developed greenhouses and commercial processing buildings. With the increase in commercial cultivation sites, there will be conflicts between the City's land use designation and the commercial development allowed by the commercial cannabis permits. This will result in unsuccessful annexation attempts, or commercial cannabis developments having to be removed upon annexation.

While the County maintains land use authority over the sphere, the City is sensitive to the fact that the sphere is part of the City's General Plan planning area. The City provides many public services to it, and the Sphere has ties to the City on social and economic levels. The NOP project description includes a statement that the County is considering, among other things, "special requirements/limitations for projects located within spheres of influence or community areas". The City is pleased to see that the urban areas most affected by the County's activities are being considered with regards to impacts. The draft EIR should consider land use impacts to the City's Sphere of Influence. In addition, Fortuna requests that a complete marijuana prohibition be adopted within Fortuna's Sphere of Influence, and that the County cease issuance of any pending County cultivation permits.

It is difficult to estimate the long-term impacts of allowing cannabis cultivation and processing at thousands of locations throughout the county. Inevitably, not all the impacts will be able to be predicted. The City of Fortuna would suggest that the County limit the permits to the existing applications and assess the impacts from those permits that have already been initiated prior to accepting new permit applications. If the County decides it must allow new permit applications the City would urge the county to limit new applications to set number every year and to limit the huge change to the landscape that appears to be happening, as it is causing conflicts between residential development and commercial cannabis cultivation. During the development of the Count's Draft General Plan, many members of the public indicated their desire for more parcels rural residential or traditional residential agricultural types of development. The competition from commercial cannabis development on agricultural, timber and residential agriculture parcels will result in fewer parcels being available to those who wish to live in a country environment and practice traditional types of agriculture. It is also increasing property values for rural properties suitable for cannabis cultivation. Such pricing does not allow many people who currently live in Humboldt County to be able to afford to purchase land, and also results in an influx of developers from across the country buying land in Humboldt County.

Aesthetics

The proposed expansion of the number of permits will result in visual blight by increasing the construction of greenhouses and other buildings on agricultural land that has historically been used for open space and pastureland. Where development has previously been limited to agricultural accessory structures limited in size, under the County's proposed cannabis expansion without limit to the number of permits, development will involve an increase in building coverage. For example,

several of the sites with submitted permit applications in the City's sphere propose up to 50,000 square feet in new greenhouses.

The County should consider the visual impacts of this intensification of building development. In addition, nuisances will include interior greenhouse lighting leaking into the night sky, outdoor/security lighting, fencing, and razor wire as visual blight. Because of the visibility of the cultivation sites directly from adjacent City residences, the aesthetic impacts are significant and cannot be fully mitigated, through typical means such as screening, fencing, etc. For this reason, the aesthetic impact cannot be mitigated relative to the residents of Fortuna, and the City requests that it be banned along the City's borders and that the County adopt a prohibition throughout the Sphere of Influence.

The glow from nighttime lighting will potentially impact the view of the eastern sky in the greater Fortuna area. The County's existing cannabis performance standards do not contain a measurable or enforceable standard for light emissions, but leaves the determination to subjective interpretation. The City would like to see a greater measure of guarantee that no lighting will not emanate from the greenhouses.

Air Quality/Odor

The odor from large-scale cultivation and processing will have an ongoing, daily negative impact on the quality of life of the nearby residents. The draft EIR should analyze the impacts and unequivocally demonstrate that all structures containing cannabis, for both cultivation and processing, will have odor-reduction equipment installed that prevent the release of any odor emissions to neighboring residents.

Public Safety

It has been demonstrated that cultivation, processing, and dispensary activities attract crime to the sites through an increase in burglary, robberies, and possession of weapons. Home invasion robberies have become more prevalent and violent crime including homicide are reaching an all-time high in Humboldt County. City of Fortuna police are called out to assist County law enforcement on these crime incidents, impacting public safety resources within the City of Fortuna and delaying response times within the City.

Although it is now legal in the State of California, marijuana is still a Schedule 1 drug with the potential for abuse and as such it can attract crime, and the residents of Fortuna have expressed objection to it being in their backyards and in the immediate vicinity of their families and children. Transient populations have increased in the urban areas nearest to the outlying cultivations sites, bringing crime and social instability, affecting the housing shortage, and increasing rents, land costs, and demand on services.

The City is requesting that the EIR investigate and identify the potential increase in crime rates, safety impacts to neighborhoods, and financial impacts to the City's law enforcement resources.

Watersheds

The County proposes to focus cultivation "to areas with slopes less than 15% and to the lower portions of the County's watersheds will concentrate cannabis activities into developed areas of the County". Currently the outskirts of the incorporated areas, such as around Fortuna, Eureka, Arcata and other urban areas, fit this description and therefore commercial cannabis growing and impacts will be intensified in those areas, and will increase the potential for commercial cultivation in those areas. This will lead to cumulative impacts within the lower areas around Fortuna and Fortuna will be unfairly burdened with cumulative impacts. These impacts should be addressed in the draft EIR.

The location of cannabis grows throughout the watersheds of Humboldt County will continue to have significant impacts. It will be difficult or near impossible to monitor the water usage of grows that are dependent on forbearance or rainwater collection as there will never be enough code enforcement to do regular inspections. In the event of a system failure and loss of stored water, growers will be forced to find water in other ways, most likely illegal surface water diversions or trucking water from far away. When water is pumped from surface creeks it has a direct impact to salmon, steelhead and other aquatic species and has the potential to harm the recreational and commercial fisheries of Humboldt County. Similarly, trucking water in will result in increased greenhouse gas and traffic impacts on small rural roads, thereby diminishing the quality of life for those in the outlying areas.

Storm Water

Because of local topography, cultivation sites in the vicinity of Fortuna will result in stormwater runoff being directed into the City's watersheds. Development of cultivation sites will increase the impervious surface on each site which will result in increased off-site flows to City drainage facilities if not fully mitigated.

City of Fortuna policies include protections from increased runoff, including that all new development complies, to the extent reasonably possible, with the recommendations of the 2005 Storm Drain Master Plan (SDMP). The City requests that all cannabis permit requests be accompanied by drainage reports and/or calculations that specifically include consideration of the recommendations within the SDMP. Specific provisions that should be incorporated into any development design, and/or addressed within the SDMP include, but are not necessarily limited to: 1) Incorporation of onsite and regional storm drainage detention; and 2) New development shall not increase the estimated existing 25-year peak runoff volume from the site. Any increase beyond the peak 25-year event resulting from new development shall be retained or detained at the expense of the developer/owner.

The City of Fortuna requests that drainage reports for each cannabis site be completed and identify stormwater volumes and recommend improvements to mitigate any off-site impacts to City drainage facilities. The City of Fortuna would like to review and approve each report for projects within the sphere of influence prior to approval of the proposed project and request that the County require the recommended drainage improvements presented in the final drainage report.

Groundwater

One of the most critical deficiencies of the County's Initial Study/Mitigated Negative Declaration for the existing ordinance is the failure to project a water demand for the intense use of water that is involved with marijuana cultivation. Cultivation may have a significant effect on the water supply of existing development, with any new development having the potential to significantly increase demands from a diminishing resource. A thorough and detailed water demand analysis must be provided by the EIR as well as alternatives that could use less water.

The County should analyze the cumulative effects of both groundwater consumption and its impact on surface water. The County should review the groundwater basin management plan to determine if the project will have impacts on the ability to maintain sustainable levels.

Local Roads

The NOP states that a proposed objective is to limit cultivation sites to within 1 mile of county-maintained roads, or on category 4 private roads. This standard will concentrate development in existing urban areas where such roads already exist, including the City of Fortuna. For example, City residents are being exposed to a cultivation site of 50,000 square feet of greenhouses located on Nelson Drive, a substandard road that is maintained by local residents. This standard will also encourage construction of new roads, and resulting sediment load being placed in creeks within the lower watersheds. The EIR should analyze the water quality requirement for road building and maintenance, and should consider limitation of the number of permits issued as an EIR alternative.

Traffic

The increase in the number of cannabis permits issued will result in an increase in traffic volumes on all roads in the surrounding area, thereby impacting City roadways. There two primary highway access points to the areas east of Fortuna (where we are seeing increased cannabis development) including at Kenmar Road and 12th Street. Currently there are intersections at both interchanges that are either operating at, or below an acceptable level of service, or are expected to with the planned growth of the City. The increased development caused by the proposed project will contribute to the traffic at key intersections within the City and will result in more traffic on narrow, substandard, or partially developed residential roads. The Fortuna General Plan identifies intersections impacted by future growth. The City would like to see a requirement for a traffic study on all projects greater than 10,000 square feet so that site-specific impacts may be identified and local roadway impacts can be mitigated.

Fortuna Municipal Code Chapter 17.05 and the City's General Plan require that "*5. A traffic study shall be prepared by a qualified professional and submitted to the public works department for new residential development with more than 30 dwelling units, or commercial, office, or industrial uses with more than 10,000 square feet of floor area.*". Therefore, the City requests that the County require that cannabis permit applicants complete a traffic study for each development project and submit for review and approval by the City of Fortuna and that the County include any proposed improvements recommended in the traffic study as conditions to be completed by each project applicant.

Each traffic study shall be prepared using the Caltrans Traffic Impact Analysis methodology when evaluating the City and/or City/County intersections. The study shall also address the cumulative impacts generated by cannabis developments and include the level of service analysis for affected intersections. If traffic signals or other mitigation measures are warranted at affected intersections, the developer shall mitigate or determine their proportionate share of mitigation costs and submit this information to the City of Fortuna public Works Department for review and approval.

On-grid power or alternative energy

The use of generators is not an appropriate method of providing energy to the cannabis sites, and the City urges adoption of stricter standards. Accidental fuel spills will affect water quality and fisheries. As City of Fortuna land is located downstream from the County's jurisdiction on the north, east, and south sides of the City, city streams will be directly impacted by the use of generators. In addition, impacts that should be analyzed include impacts of noise and odors on adjacent residential uses.

Impacts from all proposed alternative energy sources should be considered in the analysis. It is questionable that there would not be significant impacts from the use of alternative energy at the estimated approximately 10-15,000 cultivation sites. Cumulative impacts should be studied. Due to potential impacts from alternative energy sources (loss of farmland from use of solar panels, impacts to biological resources, and aesthetics from the use of wind turbines), cannabis sites should be required to operate on the grid.

Enforcement

The county estimates that there may be over 14,000 commercial grows within Humboldt County. Currently the County is understaffed with regard to code enforcement. As a part of the analysis of the EIR the county should anticipate code enforcement staffing levels and provide estimates of how many full time staff will be required in order to regulate commercial cannabis activity throughout the county. Some aspects of enforcement will be difficult, if not impossible and could lead to unavoidable impacts. For example, if water tanks are accidently left opened at a location where rainwater collection or forbearance is the primary source of water, cannabis operators could be left with a decision to illegally divert water from nearby streams or lose their financial investment. Inevitably, this will lead to surface water diversions and impacts to aquatic resources. Therefore, the County should not consider allowing rainwater collection or forbearance as an acceptable water source, and acknowledge that no level of code enforcement will be sufficient to avoid impacts.

Summary

The project description states that changes to the existing ordinance may occur; we propose such changes, establishing a substantial and effective buffer between the City limits and the area in the County where cannabis activities may be allowed. The City has concerns with the County's consideration of repealing the permit deadline and expanding cultivation areas. Many of the criteria for expanded cultivation areas will focus development and impacts in developed areas, including the City of Fortuna.

The City requests the establishment of a more significant buffer that would protect all of the City's residents. Such a buffer would need to encompass the entire City Sphere of Influence in order to create an appropriate buffer given the irregular City/County jurisdictional boundary. The City objects to the approval of any marijuana activities within the Sphere of Influence. Adoption of performance standards will not mitigate the aesthetic or safety impacts to City residents. The cumulative effects of the County's ordinance in the immediate vicinity will have a negative impact on local residents.

Fortuna has adopted a City-wide prohibition on all marijuana activities, except for those regulations that are preempted by State law. The County's existing ordinance and proposed amendments expanding the number of permits without limit are inconsistent with the City's ordinance. City residents bordering cultivation sites will be subject to increased noise, odors, dust, traffic, crime, and groundwater depletion, and the City will be affected by stormwater and water quality issues as well as housing impacts and land use conflicts. The issues listed in this letter should be analyzed and addressed in the draft environmental impact report t.

In our opinion, the County's adopted program failed to meet the intent and requirements of the California Environmental Quality Act (CEQA) regarding the range of cultivation activities, in scope and standards. We anticipate that the review being undertaken through the EIR process will address these impacts and will result in the inclusion of a buffer that is contiguous with the Sphere of Influence boundary, or that the County considers other buffer alternatives with an equal measure of protection. The City would like to work with the County to develop appropriate measures to mitigate these and other potential impacts.

The City of Fortuna appreciates your consideration of these comments and would like to receive a copy of the Draft EIR. We would be happy to meet with you to discuss these matters.

Sincerely,

Mark Wheetley
City Manager

To Steve Lazar

Please consider lifting the Prime Ag designation for new cultivation sites. I have lived in Humboldt County for 40 years and have been in the cannabis industry in some form or another for over 25 years. I purchased a new piece of land last year that had never grown cannabis on and would like to set up a tasteful, small (10,000sq ft) commercial cannabis grow. It's on AG exclusive land. I want to become compliant but the last ordinance was too limiting for me to do so. Please also consider not being able to sub-divide large parcels for cultivation.

RECEIVED
MAY - 5 2017
Humboldt County
Planning Division

Thank you

A.L.

RECEIVED
MAY 10 2017
Humboldt County
Planning Division

DEAR MR. LAZAR:

I AM A 33-YEAR RESIDENT OF PETROLIA IN THE MATTOLE VALLEY AND WRITING TO YOU WITH MY CONCERNS ABOUT THE INDUSTRIALIZATION OF THE "CANNABIS" INDUSTRY IN OUR VALLEY. THE LAST FEW YEARS HAVE SEEN BIG CHANGES WITH A LARGE INFLUX OF PROFITEERS LOOKING TO MAKE A QUICK BUCK HERE. ROADS HAVE DETERIORATED, BIG TRUCKS DRIVING TOO FAST PAST SCHOOL PEDESTRIANS, AND LIGHT AND SOUND POLLUTION ARE NEW CONCERNS HERE. I WOULD ~~&~~ URGE YOU TO DO WHATEVER YOU CAN IN THE REGULATION PROCESS TO ADDRESS THESE ISSUES, WE SHOULD KEEP HEAVY INDUSTRY OUT OF THE HILLS, & POSSIBLY PUT IT IN INDUSTRIAL ZONES WHERE IT DOESN'T NEGATIVELY IMPACT FAMILIES SEEKING RURAL PEACE & QUIET. THANK YOU,

Tony Anderson
P.O. Box 44
PETROLIA, CA 95558

RECEIVED
MAY - 5 2017
Humboldt County
Planning Division

To Steve Lazar,

I live in an amazing, fertile, community oriented valley in Southern Humboldt, a place where I hope to forever call home and a place where I grow cannabis for a living. The past few years we have seen our valley over taken by large-scale industrial cannabis grows and every spring they invade our town and every winter they leave. Some of these growers are a part of our dynamic community and others I only recognize seasonally by their trucks. Turns out these large growers are getting even larger this spring and some of them by the graces of the county in the last round of commercial cannabis ordinance. I appreciate the effort to regulate the out of control industry but it seems as if you are supporting the men and women who are in it for resource extraction and greed. The last round of ordinances is quickly changing our valley- people who have been here for a long time are leaving- for different reasons; inflated land prices, disgust with the scale of the industry, etc. and the people who came later to exploit the valley- they're being rewarded for their outlandish greedy behavior- it just doesn't make sense to me but, I want to stay here and I want to keep growing pot.

I imagine a valley like the hills of Italy: verdant with vegetative plants in the summer and turning fall colors as the season progresses but in reality the current cannabis industry looks like a myriad of plastics, imported soils, exhaust fans, generators- Industrial scale. In my perfect world, everyone grows small (<10,000 square feet- which is still more pot then I've ever grown by far) and everyone is full season. That is how we can capture the true terroir of the region. The best wine you drink in Italy is from small crafted vineyards. There's a scale that cannot produce quality product. Humboldt County is famous for it's cannabis for a variety of reasons but I think most likely it's the many small farmers who love the land and grow high quality cannabis. It's been used to support a lifestyle- one of the back to the land movement, homesteading and living in beautiful rural places not to be a lifestyle- one of resource extraction, lifted trucks and greed.

What I didn't like about the last ordinance was that 1) it was open to non Humboldt county residences 2) it rewarded large grows by allowing growers to grow as much cannabis as they have been and even allowed them to grow larger (through the RRR) instead of supporting small scale farms 3) the limitation of new grows on prime Ag soils, which basically is all the land of the central area of our small town. Below are some of my comments for the proposed new EIR.

Aesthetics: When I drive through southern Oregon I can spot a pot grow from a mile away because they have fences on all sides with cameras. I'd rather see plants then a random fence in a field. Also, greenhouses are hideous to look at- it's not agriculture it's industry and it's mostly been used as a way to hide the plant. I grow on the coast and we only use a greenhouse as a nursery in the early spring. It's too much plastic and unnecessary in the southern county. Do everything you can to support and promote small organic farmers.

Air Quality/GHG's: The largest contributor to GHG emissions in the industry is from large scale grows who truck in soil from Canada and use plastics for greenhouses. The more you can support and encourage small scale gardens the less resources and thus emissions. Do limit generator use but don't discourage off grid users- it would be unfair to make generators illegal for the handful of hours that a small off grid farmer uses it for drying especially when you are allowing so much energy usage with supplemental light and indoor grows. There should be a MegaWatt limitation and definitely sound proof generator usage. If you were truly concerned with GHG emissions then you should make indoor and supplemental light illegal- it is not necessary to grow good marijuana it's solely a product of greed. Do everything you can to support and promote small organic farmers.

Biological Resources: there needs to be NO light pollution visible from supplemental light- all grows need to abide by the international dark sky law. In general disincentives supplemental light (higher taxes?). To be honest, I've rarely met a clone I've liked and in general if you're growing at the scale where you need supplemental light you're more likely to get diseases like powdery mildew and mites which leads to pesticide use and an inferior product. It's disgusting- grow it outside the plants like the sun and air. Would you drink wine that was grown indoors? Would you ever eat vegetables grown under artificial lights? Massive carbon footprint. Do everything you can to support and promote small organic farmers.

Hazard and Hazardous materials: Make it illegal to use pesticides. We all know they do more harm then good and we already live in a fragile ecosystem-let's not try to mess it up anymore than we have. Do everything you can to support and promote small organic farmers.

Land use and Planning: I think the RRR has spawned a nightmare situation. On the valley floor –where the majority of our residences live there is now a 7 acre grow, a 3 acre grow, and an acre grow that I can see just by driving to the 101. Disaster- get rid of the RRR we do not need larger grows; we do not need to concentrate the wealth of cannabis into a few hands. This ordinance is changing our community structure- people are leaving because their once rural view is now 3 acres of greenhouses (fences don't make that better). We are a rural community not an industrial waste zone. Lift the prime Ag designation- it's the part of the ordinance that made me not eligible for becoming compliant. Don't be so scared of farming in the hills- there are a lot of advantages: less neighbors to complain, it's good to be isolated from diseases, the air flow is better and drier- the river bottoms are too humid and prone to powdery mildew. I think a way to be more inclusive is to allow Humboldt county residences (lived here at least 2 years) to be able to have a new grow site as long as it's under 10,000 sq. ft. I know it's almost impossible to include everyone but because of complicated land partnerships I couldn't comply with the last round on the property where I live but I do own another piece of property that has never had marijuana grown on it- I'm hoping to be able to grow there legally.

Hopefully this next round will be more inclusive. With that being said, do everything you can to support and promote small organic farmers.

Another consideration with lifting the prime ag designation is to write the ordinance in a way that prohibits sub-division.

All I see is the big grows getting bigger- I think you should incentivize small (10,000sq. feet not 7 acres) environmentally friendly operations by streamlining the permitting process and restrict new grows to Humboldt county locals.

Imagine, again, instead of greenhouses and fans, plots of small- scale outdoor plants scattering the hillsides and people coming from all over the world to smoke that delicious fruity plant- only found in Humboldt county. Indoor and to a lesser extent supplemental light cannabis (those especially grown in bagged soil) can be grown anywhere. Let's cultivate terroir in Humboldt county. And if we can't do it at the county level I am interested to know how we as an unincorporated community could implement such requirements in our valley.

Thank you for your efforts and I hope we can work together for a peaceful, successful, and sustainable industry.

4/20/17

Dear Steve,

Thank you for respecting the rights of neighborhoods within city limits that lie on a border shared with the county line.

Pot can be safely grown in many other places in the county that aren't next door to people's homes.

Sincerely,

Joan & Randy Bennett
475 Nob Hill Road
Fortuna

4/20/17

To Steve Lazar and everyone who can improve cannabis growing regulations,

Cannabis growers have rights but so do citizens who rent or own homes in Humboldt County.

We have lived in our house on Nob Hill Road in Fortuna for almost 45 years. It is a safe and peaceful place with friends and neighbors we have known for decades. Like us, many people on this hill border sections of land that are in the county but not the city. If a cannabis grow is suddenly 40 feet from our property line, the smell will ruin the quality of life in our houses and yards. Grows should be at least 300 feet from a neighbor's house and at least 200 feet from property lines. That would at least lessen the skunky smell.

No visible lights and no audible sounds (not just from generators but from any noise connected to the grow) are also essential.

Excessive use and contamination of water are also concerns. In many places on our hill, water flows downhill from one person's property across another's. If the water is contaminated, this should not be allowed.

Increased traffic would also be an issue in our area which is accessible only by Home Avenue, a collector road.

There are many instances where grows have brought in people who ruin the security of an area. That is a concern in a neighborhood with many families nearby, such as in our area.

There are many places in Humboldt County where cannabis can more easily be grown at least 300 feet from neighbor's homes and at least 200 feet from property lines. Cannabis growers have rights but so do their neighbors. These setbacks are essential. We are counting on you not to just think of the cannabis business but also the rights of the neighbors impacted by your decisions.

Sincerely,

Joan and Randy Bennett

475 Nob Hill Road
Fortuna, Ca

**From:** Joan Bennett
**To:** Lazar, Steve
**Subject:** Cannabis
**Date:** Wednesday, April 19, 2017 3:01:29 PM

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To Steve Lazar and everyone who can improve cannabis growing regulations: Cannabis growers have rights but so do citizens who rent or own homes in Humboldt County. We have lived in our house on Nob Hill Road in Fortuna for almost 45 years. It is a safe and peaceful place with friends and neighbors we have known for decades. Like us, many people on this hill border sections of land that are in the county but not the city. If a cannabis grow is suddenly 40 feet from our property line the smell will ruin the quality of life in our homes and yards. Grows should be at least 300 feet from a neighbor's house and at least 200 feet from property lines. That would at least lessen the skunk smell and air quality. No visible lights and no audible sounds (not just from generators but from any noise connected to the grow) are also essential. Excessive use and contamination of water are also concerns. In many places on our hill, water flows downhill from one person's property across another's. If the water is contaminated, this should not be allowed. Increased traffic would also be an issue in our area which is accessible only by Home Avenue, a collector road. There are many instances where grows have brought in people who ruin the security of an area. That is a concern in a neighborhood with many families nearby, such as here. There are many places in Humboldt County where cannabis can more easily be grown at least 300 feet from neighbors' homes and at least 200 feet from property lines. Cannabis growers have rights but so do their neighbors. These setbacks are essential. We are counting on you not to just think of the cannabis business but also the rights of the neighbors impacted by your decisions. Sincerely, Joan and Randy Bennett, 475 Nob Hill Road, Fortuna, Ca.

To: Steve Lazar

From: Bonnie Blackberry
Civil Liberties Monitoring Project Rep
PO Box 544 Redway, CA 95560.

Date: May 9, 2017

RE: Input regarding Humboldt County Scoping Meeting for Cannabis Environmental Impact Report

The current policies and provisions are converting our outlying rural neighborhoods into industrial grow zones. Permitting and encouraging large grows and generator powered "mixed-light" operations is drastically impacting, our neighborhoods, the environment and our community character.

The size and location of grow operations allowed, combined with the lack of meaningful enforcement has created an atmosphere of a go for it free for all. Existing grows are expanding, including people who are getting permits. And new grows are increasing as well.

There is a huge increase in well drilling, earth moving and digging machinery, glowing green houses lighting up the night, along with the increased generator noise and pollution, noise from fans and pumps and other equipment, loud music, vehicle noise with much more traffic with large and small trucks and vehicles transporting people (workers), fuel, machinery, grow supplies…

ACCESS AND PRIVATE ROAD SYSTEMS; Most, if not all of the private roads in outlying subdivisions were not built for year round industrial type activity. The increased traffic, associated with the large grows and multiple crops, creates greater risks of accidents and fire, greater need and expense for maintenance, and more and more clouds of dust going everywhere.

The bigger the operation, the more traffic, the more traffic means more wear and tear on the roads, greater risk of accidents and an unbelievable amount of dust.
All property owners with shared easements/access are responsible for maintenance and safety of the roadways. The current process, which needs to change, leaves it up to the neighbors and easement owners to figure out a way to deal with the impacts and costs.

GENERATOR GROWS: The County agreed that indoor generator grows were not appropriate and then allowed generator grows in greenhouses. Both require electrical power for lights, fans, etc. Both are able to produce up to 4 crops and harvests per year. Mixed light is not outdoor and should not be allowed in our outlying rural areas.

I just learned that "supplemental light" is considered outdoor. Supplemental light requires the use of artificial light, where as actual outdoor only requires sunlight. Supplemental light may include use of generators. When does supplemental become mixed light and how is it possible to have effective compliance and enforcement?

Putting limits on mixed or supplemental light such as covering at night, limiting noise and what type and length of light use, may look good on paper, but relying on neighbors to do the monitoring and expecting people to turn in their neighbors isn't working very well, as most people are not willing to take on the enforcement duty and become a snitch and/or risk possible retribution.

NOISE POLLUTION:
Noise can travel long distances in these mountainous watersheds. The generator noise is most detectable at night when things are generally quiet with no wind blowing through the trees or birds chirping. Is the County prepared to make night calls to verify that the noise can be heard by a nearby or a far away residence? Requiring that no noise is heard from 5 ft away from the generator would be better than setting a decibel level that allows the sound to carry to other residences. And WHAT ABOUT THE WILD LIFE?

LIGHT POLLUTION; Looking out at night and seeing numerous glowing green houses is a bummer, for multiple reasons from the visual impacts to the effects on human, plants, and other creatures. Current enforcement methods do not appear to be effective.

NOTIFICATION and INFORMATION; The lack of notification and consideration of neighbors and landowners with shared roadways, and shared maintenance responsibility needs to be addressed. What about the increased risk of accidents with the increase in all this traffic? The County says OK, and then the landowners are expected to work out dealing with all of the impacts.

The current permitting process has put the burden of identifying and reporting operations which are out of compliance. If an operation is under 5,000 square feet, there is no requirement for the County to notify the neighbors or mutual access easement owners, so that they would have the information about the operation plan and what is actually being considered BEFORE APPROVAL, with the opportunity for input, as well as what is later approved.

SCENIC VISTAS AND VISUAL QUALITY There is an increasing negative impact to the scenic vistas and visual quality in the outlying rural areas with the day time glare from green houses with water bladders covering the meadows, and ever increasing number of green houses glowing in the night.

WATER BLADDERS: Also consideration must be given to water bladders, visual impacts as well as the square footage covered by water bladders should be included in overall square footage of

the grow. Is the foot print, square footage of water bladders taken into consideration when determining grow operation size? If not, they most definitely should.

SIZE/FOOTPRINT OF OPERATIONS IN RESIDENTIAL AREAS, including outlying subdivisions where the primary use has been residential: The size of the grow operation has a direct correlation with the increased traffic, environmental foot print and impact, noise, lights, visual impacts and the general character of the area.

ENFORCEMENT: Standards and Regulations are only as good as meaningful monitoring and enforcement which appears to be sadly lacking.

Respectfully submitted,

Bonnie Blackberry
CLMP Rep

| | |
|---|---|
| **From:** | Dawn Boechler |
| **To:** | Lazar, Steve |
| **Subject:** | Comment on EIR/NOP |
| **Date:** | Tuesday, May 2, 2017 8:11:18 AM |

Dear Mr. Lazar,

I am a resident of Fortuna and live in the Home Ave/Nob Hill Rd/Garland Ave neighborhood. I am writing because I am very concerned about the NOP Review/Environmental impact report and the potential for negative impacts on the integrity, safety and quality of life in our neighborhood.

I believe most of my concerns have already been addressed by my neighbor, Tim Meade, in his letter to you, sent on 4/16/17. Mr. Meade has done an excellent job in summarizing the concerns of our neighborhood and his suggestions for mitigation of impact are well researched and should set the benchmark for these unique parcels that exist within the county sphere of influence.

I would like to state plainly to you that I believe that commercial marijuana grows do not belong in residential areas, and most certainly not adjacent to residential single family zoning.

Thank you for reading this email and for all of your efforts in this matter.

Dawn Boechler
535 Garland Ave
707-725-1686

Sent from my iPhone

**From:** chantal campbell
**To:** Lazar, Steve
**Subject:** proposed amendments to cannabis ordinance
**Date:** Wednesday, May 3, 2017 10:05:22 AM

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To whom it may concern,

I think that expanding areas where growing is allowed is a bad idea. Are you figuring out that most of the applicants are growing in areas that aren't conducive to agricultural production? Then they should not be growing there. The only reason these guys are out in the hills is to hide, weed legal? Move into agricultural areas. All the agricultural areas are already in operational farming, move to a different county simple as that. We are not giving up our natural resources so the county can make a buck. I feel like you are re-opening and expanding the areas allowed to grow because the county isn't making any money on the permits because these people shouldn't be farming on the parcels they are applying for. This shouldn't be about money. It should be about practicing sustainable agriculture and saving our natural resources including our rivers.

How about you up the tax on square footage, the current rates are a joke

--
Chantal Campbell
120 Jaymar Lane
Carlotta, CA 95528

Blue Lake Rancheria
ENVIRONMENTAL PROGRAMS
P.O. Box 428
Blue Lake, CA
Office: (707) 668-5101
Fax: (707) 668-4272
www.bluelakerancheria-nsn.gov/govLawEnviroPro.html

May 9, 2017

County of Humboldt Planning & Building Department
3015 H Street
Eureka, CA 95501

Re: Notice of Preparation- Cannabis EIR

Dear Mr. Lazar:

The Blue Lake Rancheria Tribe has concerns about cannabis cultivation activities in the ancestral Wiyot territory, and specifically in the Mad River watershed. We urge the County to be diligent in their Environmental Impact Report (EIR) especially with respect to hydrology and water quality, aesthetics and visual resources, tribal cultural resources, and biological resources.

The Mad River is our source for drinking water, and is home to many culturally-important (and threatened or endangered) species. It is listed (Clean Water Act section 303(d)) as impaired for sediment/turbidity and temperature. Impacts from cannabis cultivation have been felt in the lack of cool tributary water as water is siphoned off for grows, in sediment delivery to the river from grading and other ground-disturbing activities, and in the change of aesthetics of the watershed as we see it become over-run with cannabis cultivation. We have concerns about the disturbance of cultural resources from this activity, in the past and ongoing.

The impacts from cannabis cultivation need to be seriously considered and mitigated for individually, and the EIR needs to include a thorough analysis of cumulative impacts. We have been experiencing impacts from increased cannabis cultivation for several years, and can see that in addition to the permit process there will need to be increased enforcement. We urge the County to include more enforcement for the Mad River watershed as a priority.

Sincerely,

Michelle Fuller
Environmental Director

State of California - Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Northern Region
601 Locust Street
Redding, CA 96001
http://www.wildlife.ca.gov

*EDMUND G. BROWN, Jr., Governor*
*CHARLTON H. BONHAM, Director*

May 9, 2017

Steven Lazar
Humboldt County Planning and Building Department
3015 H Street
Eureka, CA 95501

**Subject: Amendments to Humboldt County Code Regulating Commercial Cannabis Activities, Humboldt County, California**

Dear Mr. Lazar:

The California Department of Fish and Wildlife (Department) has reviewed the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR). The Department received the NOP for Amendments to Humboldt County Code Regulating Commercial Cannabis Activities from the County of Humboldt Planning and Building Department (HPBD) on April 10, 2017. The Department last provided comments on the Medical Marijuana Land Use Ordinance – Phase IV in October 2015.

The Department has jurisdiction over the conservation, protection and management of fish, wildlife, native plants and their habitat. As a Responsible and Trustee Agency, the Department administers the Lake or Streambed Alteration Program (LSAA), California Endangered Species Act (CESA), and other provisions of the Fish and Game Code (FGC) that conserve the State's fish and wildlife public trust resources. The Department provides the following comments and recommendations on the proposed Project in our role as a Trustee Agency pursuant to the California Environmental Quality Act (CEQA; California Public Resources Code [PRC] § 21000 et seq.).

The Department strongly supports efforts to regulate cannabis cultivation and to address the numerous and substantial environmental impacts. The Department believes that greater regulatory oversight and enforcement by local Lead Agencies can help minimize the environmental impacts of cannabis cultivation. The Department's recommended level of oversight and enforcement is in contrast to the stance taken by Humboldt County (County) on land use development activities that have occurred specific to cannabis cultivation prior to this land use code.

The County has allowed cannabis cultivation and rural land use development to proliferate with minimum enforcement. Due to HPBD's lack of oversight and enforcement, the Department has been forced to act as a law enforcement deterrent to address the rampant violations of County Code, Fish and Game Code, and Water Quality Code that have occurred and continue to occur in response to the Counties open door policy on cannabis cultivation. The Humboldt County Initial Study on Cannabis Cultivation described the environmental setting which estimated 8,000 to 10,000 cultivation sites in the County as of 2014, with an anecdotal rapid expansion

observed in the last several years[1]. Cultivation densities are estimated as high as 27 sites per square mile in the Initial Study. The current land use ordinance proposes no limits on density or watershed carrying capacity of cultivation sites. The Department recommends assessing the carrying capacity of watersheds to support cannabis cultivation (**Recommendation #1**).

While it is proposed to regulate legal and legitimate cannabis cultivation through a local land use ordinance, the HPBD does not have the means to enforce the mitigations proposed within the current ordinance. Failure to enforce the rules associated with the existing and proposed land use ordinance greatly weakens any mitigation and therefore fails to protect the environment from further degradation.

The Department spends a considerable amount of staff time and resources investigating and documenting the environmental impacts resulting from cannabis cultivation. Department staff has conducted inspections on hundreds of cannabis cultivation sites throughout the County. The Department has documented substantial adverse impacts of cannabis cultivation on forest lands, including impacts from water diversions and stream dewatering, forest clearing and conversion, pollution, and sediment discharges.

These investigations have led to the issuance of several hundred Notices of Violation (NOV's) and filing of cases with the County's District Attorney's office. More recently the Department has also filed civilly through administrative hearings to recover costs and enforce remediation requirements. The sheer scope of cannabis cultivation in the County is overwhelming to local and state agencies, and efforts to further increase cannabis cultivation in the County should not be permitted without first evaluating and enforcing regulations on the thousands of active sites that continue to operate in violation of local, State and federal law.

**Environmental Impacts**

Documented environmental impacts of cannabis cultivation include habitat fragmentation, habitat loss through land clearing and conversion, reduction in instream flow, and delivery of sediment, nutrients, petroleum products, and pesticides to streams (Carah et al. 2015). Unpermitted land use development is a major concern to the Department and includes road building, grading, pond construction, stream crossing construction, and hydrologic modification including rerouting of streams and interception of groundwater through poorly constructed road systems.

Additional impacts Department staff have documented include degraded water quality; degraded habitat due to inappropriate location of development; development within riparian buffers; loss and degradation of wetland habitat; wildlife entanglement and

[1] See https:Humboldt.org/DocumentCenter/View/56447.

mortality due to on site hazards (ex. plastic mesh); wildlife entrapment; fish passage barriers due to improperly designed water diversions; altered natural photoperiods from light pollution; and introduction of nonnative species (fish and plants) resulting in predation of native species degraded habitat quality.

Many of these effects are unique to cannabis cultivation; strategies to minimize and mitigate potentially significant environmental impacts should be fully considered and incorporated when developing a new regulatory program. As a Lead Agency pursuant to CEQA, the HPBD has the primary responsibility for minimizing significant environmental impacts associated with land use zoning through implementation of its' land use code and zoning ordinances.

Enforcement

Although the Department is supportive of efforts to regulate cannabis cultivation, issuance of permits will not ensure compliance, particularly without consistent monitoring, enforcement, and substantial penalties for violations. The Department has observed minimal enforcement of cannabis cultivation sites in the past several years by the County, with the exception of eradication efforts conducted by the Sherriff's office supported primarily by grant funding. Eradication does little to mitigate environmental impacts over time, as these efforts have not been conducted in cooperation with environmental investigation. Sites that operate in violation of environmental regulations should be shut down until compliance with local and state laws is demonstrated. The HPBD should ensure that adequate funding and personnel are available, and meaningful enforcement is implemented concurrently for permitted cultivation operations, as well as those not in compliance with County Code. The HPBD should partner with, but not rely on, State agencies for enforcement.

Without meaningful enforcement and penalties for non-compliance, the number of unpermitted and noncompliant cultivation sites with their associated environmental impacts will continue to increase. The Department recommends the amended County Code include specific penalties or remedies for permit non-compliance and post-permit environmental remediation, and provide adequate staffing to conduct enforcement efforts and compliance review (**Recommendation #2**).

Water Use and Availability

California has a Mediterranean climate, where most of the state's precipitation falls from October to May (CDFG 2003), not during the primary cannabis summer growing season. Due to the lack of summer rainfall and the absence of snow, rivers and streams have receding flow from May until September. Water use peaks in the heat of the summer at the same time instream flow is at its lowest, creating a conflict between water demand and water availability for fish and wildlife resources. The Department is concerned that there is not adequate flow in most streams to meet the water demand

for cannabis cultivation at its current levels, as well as the domestic water use for dwellings and other residential and commercial uses developed to facilitate cannabis cultivation and processing. Based on numerous field observations and ongoing research, the Department believes that the overuse of surface water diversions for cannabis cultivation has and will continue to have a significant impact on aquatic resources.

As the NOP states, "Nearly all of the HPBD's municipal water providers rely upon local surface (streams and reservoirs) and groundwater sources, which are fed entirely by precipitation..." and "most outdoor and mixed light cultivation sites are located in rural areas served by private wells, [and] surface water diversions." The potentially significant impacts from a substantial increase in water demand on streams and rivers must be disclosed and analyzed in the DEIR (**Recommendation #3**).

In addition, the Department has observed that construction and use of large ponds (sometimes 500,000 gallons or more) as a water storage method has increased dramatically in the County. In the past, the HPBD has allowed the construction of new ponds, which often involve substantial grading and fill, under a ministerial grading permit with no environmental review. These ponds may pose risks to water quality and sensitive habitats if they are designed and constructed without proper engineering. The Department has observed many ponds built in inappropriate locations, and failed ponds that have delivered sediment to nearby streams. In addition, these ponds often provide breeding habitat for non-native, invasive species such as American bullfrog (*Lithobates catesbianus*), a species that preys upon native frogs such as the northern red-legged frog (*Rana aurora)* and foothill yellow-legged frog (*Rana boylii*), both California Species of Special Concern. The County should provide a mechanism to regulate the development of ponds as part of cannabis cultivation permitting, including a requirement for engineered designs, and invasive species management plans for all ponds. Ponds are Department jurisdiction if they are filled from, or outlet to a stream or wetland. The Department recommends the HPBD should ensure that, as a condition of approval for cannabis cultivation permits, required approvals from the Department and any other applicable regulatory agency is obtained prior to pond development (**Recommendation #4**).

<u>Direct impacts to streams, riparian areas, wetlands</u>

The Department has observed that many cannabis cultivation applications do not accurately characterize on-site streams or wetlands, nor propose adequate buffers for aquatic resources. The Department recommends that if surface waters (streams and wetlands) are present on a parcel, the County requires a qualified professional delineate these waters (**Recommendation #5**). Delineated waters should then have minimum buffers applied (no less than 50 feet for intermittent streams, 100 feet for perennial streams, and 150 feet for major or regionally important streams and rivers) as measured from top of bank or outer edge of riparian, whichever is greater.

Many areas where cannabis cultivation may be permitted include agricultural and other areas within the 100-year floodplain. The Department has commented on cannabis cultivation project proposals for greenhouses within 100 year floodplains. These greenhouses require grading, fill, and often have concrete floors. These structures create a permanent development footprint that cannot be easily converted back to floodplain in the same way that other agricultural uses (grazing, planting and harvesting of some crops) can.

Floodplains are an important physical and biological component of riverine ecosystems. All rivers flood, and flooding is an expected and recurring event in natural river systems. Development in flood-prone areas disconnects rivers from their natural floodplains and displaces, fragments, and degrades important riparian habitat. Development in floodplains often eliminates benefits of natural flooding regimes such as deposition of river silt on valley floor soils and recharging of wetlands. In addition, braided channel structure, off-channel fish habitat, and backwaters are eliminated, resulting in higher velocity flows. These changes lower habitat suitability for salmonids, which need low-flow refugia to escape flood flows. Structures in flood plains are vulnerable to erosion and flood damage. Once structures are built and threatened by river flooding, property owners often seek to armor river banks or build or raise levees to prevent future property damage. Thus, not only does development displace riparian and floodplain habitat when it is built, it often results in further habitat and floodplain loss through additional development to protect structures.

Development and habitat conversion in floodplains results in degradation of riverine and riparian habitats, and negatively impacts the fish and wildlife species that depend on them. The Department recommends that the cannabis cultivation permitting prohibit placement of permanent structures within the 100-year floodplain of any stream or river (**Recommendation #6**).

Impacts of Night Lighting on Wildlife

Cannabis cultivation increasingly uses artificial lighting in greenhouses, and so-called "mixed-light" techniques to increase yields. The adverse ecological effects of artificial night lighting on terrestrial, aquatic, and marine resources such as fish, birds, mammals, and plants are well documented (Johnson and Klemens 2005, Longcore and Rich 2016, Rich and Longcore 2006). Some of these effects include altered migration patterns and reproductive and development rates, changes in singing behavior in bird species (Miller 2006), changes in foraging behavior and predator-prey interactions, altered natural community assemblages, phototaxis (attraction and movement towards light), disorientation, entrapment, and temporary blindness (Longcore and Rich 2004, Longcore and Rich 2016).

The Department has determined that light pollution disrupts the abilities of night-foraging birds (CDFG 2007). Artificial lighting impacts bat roosts, and Johnston et al.

(2004) recommend that artificial lighting be directed away from bat roosts or possibly shaded by trees. Research on the effects of artificial lighting on salmonid populations indicate that increased light intensity appears to slow or stop out-migrating juvenile salmon and affects feeding patterns. Juvenile salmonids in the presence of increased artificial night lighting may be more vulnerable to predation (McDonald 1960, Patten 1971, Ginetz and Larkin 1976, Tabor et al. 2004). Because cannabis cultivation sites are commonly located in remote forested areas that would otherwise not be affected by night light pollution, and because these forested areas contain habitat for many organisms that are negatively impacted by light pollution, cultivation using artificial light on a landscape scale could have a significant impact on wildlife.

The Department is opposed to outdoor cannabis cultivation using lights, and the resulting night light pollution. The Department recommends that if lighting is used for cultivation within structures, light should not be visible from outside the structure. The HPBD should not allow the use of lights at night for cannabis cultivation in greenhouses due to the difficulty in fully blocking light escapement, and should ensure that these prohibitions are enforceable, and actively monitored for compliance (**Recommendation #7**).

Impacts of Noise on Wildlife

Diesel and gasoline-powered electric generators is a common fixture of indoor and outdoor cannabis cultivation sites. Electric generators can produce considerable air and noise pollution. The effects of noise pollution on wildlife include disrupting communication between individuals, affecting predator-prey relationships and foraging efficiency, and habitat selection and bird nesting density (Barber et al. 2009; Francis and Barber 2013).

On a watershed scale, the chronic noise pollution from numerous cannabis cultivation site generators has the potential to result in substantial habitat loss or degradation to a number of wildlife species. Generator-produced noise pollution can be especially harmful to night-foraging animals such as owls and bats, which hunt for prey primarily though hearing. The State- and federally-threatened northern spotted owl (*Strix occidentalis*), for instance, occurs in forested coastal Humboldt County and is vulnerable to nighttime generator noise impacts.

Impacts to bats from noise are another specific concern. Populations of many bat species across North America and globally are declining. Approximately fifteen percent of the global bat fauna are listed as threatened by the International Union for Conservation of Nature (IUCN). However, a greater number of species (about 18%) are listed by the IUCN as "data deficient," meaning there is a lack of studies that can be used to support assessments of conservation status (Voigt and Kingston 2016). This decline has numerous causes, but habitat loss and degradation are principal contributors.

According to the California Natural Diversity Database (CNDDB), 12 of California's 25 bat species are designated as California Species of Special Concern, USDA Forest Service Sensitive, or federally Endangered. The County has ten species of bats either documented or highly likely to occur, three of which, the pallid bat (*Antrozous pallidus*), Townsends's big-eared bat (*Corynorhinus townsendii*), and western red bat (*Lasiurus blossevillii*), are California Species of Special Concern. Bats have been shown to avoid areas with chronic noise (Schaub et al.2008) and the foraging success of certain bat species is reduced by chronic noise (Siemers and Schuab 2011).

In conjunction with the other habitat fragmentation, degradation, and disturbance-related impacts of outdoor cannabis cultivation already mentioned, both night light pollution and chronic generator-induced noise impacts may contribute to landscape-scale wildlife habitat declines.

Based upon the information above, the Department recommends the DEIR include an analysis of potential night light pollution and chronic noise exposure impacts to wildlife, and effective avoidance, minimization and/or mitigation strategies (**Recommendation #8**).

Impacts to Listed Species

Humboldt County is known to support several species listed or candidate under the California Endangered Species Act (CESA, Fish and Game Code § 2050 et seq.). Specifically, Coho Salmon (*Oncorhynchus kisutch*) and Northern Spotted Owl (*Strix occidentalis caurina*) are present in areas where cannabis cultivation occurs. Cannabis cultivation activities detailed above have the potential to cause "take" of and impacts to these listed species. Take of species of plants or animals listed as endangered or threatened under the California Endangered Species Act (CESA) is unlawful unless authorized by the Department with an Incidental Take Permit. The DEIR must state whether the Project could result in any incidental take of any CESA-listed species. The HPBD should adequately analyze potential impacts and include avoidance, minimization and mitigation measures to avoid or mitigate impacts in the DEIR (**Recommendation #9**). For Coho Salmon, cumulative impacts from surface water diversion are a particular concern.

**Notice of Preparation**

The Department provides the following comments specific to the NOP, using the general organization and section titles in the document.

Project Description

In part, this section includes a list of criteria for areas where expansion or new cultivation would be allowed.

*Water Source*

The Department recommends that the DEIR a) define criteria of a "viable" water source; b) provide standards and requirements for a "localized water management plan"; and c) define the criteria for determining whether groundwater is "non-hydrologically connected" (**Recommendation #10**).

*Roads*

The Department is concerned about extensive new road construction, and use of existing unpermitted seasonal roads and/or skid trails, associated with cannabis cultivation. In many locations, roads would not have been constructed or reopened if not to provide access to a cultivation site. These roads are often inappropriately located; are not properly surfaced for wet season use; poorly constructed and maintained; frequently include unpermitted, undersized and/or poorly installed stream crossings; are hydrologically connected to streams (creating a risk of sediment delivery); and contain steep grades that are nearly impassible under saturated conditions.

The Department is further concerned with access roads that connect paved roads to cannabis sites. Many access roads traverse unimproved private lands and road segments where environmental impacts and potential Fish and Game Code violations are substantial (e.g. failed road crossings, stream fords). Existing County Code does not provide a mechanism to address the proposed increase in traffic on existing, unpermitted access roads. In some cases, impacts such as sediment delivery and erosion cannot be corrected while allowing the road to remain. In such cases, road decommissioning and restoration may be the only feasible option to rectify existing conditions and prevent future impacts.

As described, the Project would allow expansion or new cultivation in areas "located on or within 1 mile of county-maintained roads, or *located on private road systems meeting the category 4 road standard*" (*emphasis added*). The Department is concerned that this provision will encourage additional road construction, and will allow the continued use of problematic roads constructed without the benefit of permits or the use of best management practices.

The Department recommends the County DEIR provide adequate avoidance, minimization and/or mitigation measures (including decommissioning and restoration where appropriate) that address the environmental impacts of past and future

cultivation-related road construction, including habitat fragmentation and impacts to sensitive aquatic habitats and species (**Recommendation #11**).

*Limit Cultivation to Areas Not Requiring Timberland Conversion*

The DEIR should provide detail regarding enforcement of this provision. The Department recommends that the County demonstrate that there will be a mechanism to determine whether illegal timberland conversion was conducted to facilitate cannabis cultivation, and to deny permit applications based on that determination.

Agriculture and Forestry Resources

The Department is not clear from reviewing this section whether new or expanded cultivation in Timber Production Zone (TPZ) would be prohibited in the new Project. The Department is opposed to commercial cultivation of cannabis on forested parcels, including lands zoned TPZ and areas defined as timberland pursuant to PRC section 4526. The deleterious effects of habitat conversion, fragmentation, and parcelization of forestlands on wildlife and fisheries are well documented in the scientific literature. The Department recommends that the amended County Code not allow new or expanded cultivation on forested parcels (**Recommendation #12**).

Biological Resources

The Department's concerns regarding impacts to Biological Resources, Hydrology and Water Quality are addressed in detail above.

Public Services

The NOP notes that "Most of the County is designated as a High or Very High Fire hazard area by the California Department of Forestry and Fire Protection." The DEIR should address the potential environmental impacts of compliance with "Fire Safe" vegetation clearing to create defensible space pursuant to PRC section 4291. Many unpermitted dwellings and outbuildings have been constructed adjacent to and within streamside management areas in Humboldt County. Constructing fuel breaks around structures require the removal of trees and understory vegetation, and thus would impact sensitive riparian forest habitat along streams.

Cumulative Impacts

As stated in the NOP, cumulative impacts must be addressed pursuant to CEQA section 15130. The Department is concerned about cumulative impacts not only as they relate to cannabis cultivation, but also rural residential development and other types of development that have similar impacts. The Department recommends that the

county establish maximum limits of allowable cultivation as a proportion of watershed size (e.g., HUC 12 size) to minimize cumulative impacts (**Recommendation #13**).

**General Comments**

CEQA Review for Individual Cultivation Sites

Without robust environmental protection and a provision for individual project review, permitting cannabis cultivation on the scale that Humboldt County intends to allow is likely to cause significant environmental impacts. CEQA section 15378 defines "project" to include "the whole of the action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment..." Without a cap on the number or acreage of cultivation sites, a defined time horizon, or any other defined limit, the HPBD's CEQA review must consider the potential that all parcels that meet the HPBD's zoning criteria could be developed for cannabis cultivation. Without site-specific review and approval for each site, it is not clear how impacts of this County-wide project could be mitigated to a less than significant level.

The Department recommends that the DEIR define and disclose criteria that the HPBD will use to determine whether any cultivation project requires site-specific CEQA review (**Recommendation #14**).

Effectiveness of Mitigation Measures

Humboldt County's Medical Marijuana Land Use Ordinance has been in effect since February 2016. The Department is concerned that the County's existing regulatory framework has not been effective in avoiding, minimizing and/or mitigating the environmental impacts of cannabis cultivation. Pursuant to CEQA section 15002, the DEIR must disclose and evaluate all of the project's potentially significant impacts; identify ways to avoid or significantly reduce environmental damage; propose, as appropriate, feasible and effective mitigations for those impacts; and disclose reasons for approving the proposed project if significant environmental impacts will occur. In addition, pursuant to CEQA section 15126.4(a)(2), mitigation measures must be fully enforceable through permit conditions, agreements, or other legally binding instruments.

The DEIR should include an analysis of the effectiveness of mitigation measures under the current program in avoiding, minimizing or reducing the environmental impacts of cannabis cultivation sites, particularly if the same or similar mitigation measures are proposed for use in the amended County Code **(Recommendation #15)**.

Fish and Game Code

Several Fish and Game Code sections apply to activities that the HPBD would permit under the amended Code. Fish and Game Code section 1602 et seq.[2] requires notification for diversions of water from a surface water source, or of water hydrologically connected to a surface water source (e.g. offset wells), as well as for physical changes to the bed, channel or bank of any river, stream, or lake.

In the experience of the Department staff, nearly all cannabis cultivation sites require a LSAA frequently for water diversion and/or stream crossings (including culverts). The Department recommends that all cannabis cultivators submit notification to the Department (**Recommendation #16**). If the Department determines an LSAA is not necessary, it will provide written verification to that effect. State licensing through the California Department of Food and Agriculture will require that all cultivators obtain either an LSAA or a letter from the Department stating that an LSAA is not required[3].

Department staff has also documented increased observations of unpermitted non-native aquatic species introductions to ponds used for water storage and water diversion associated with cannabis cultivation. Fish and Game Code section 6400 requires first submitting for inspection and securing a stocking permit from the Department before planting fish. The Department recommends that the Project prohibit non-native species introduction to new ponds and that county address the potential environmental impacts from existing introduced species in the DEIR **(Recommendation #17).**

HPBD staff and/or applicants should consult with the Department to ensure compliance with all FGC sections. Examples of other applicable FGC sections include but are not limited to section 2050 et seq. CESA section 5650 (prohibits water pollution), section 5652 (prohibits refuse disposal in or near streams), and section 5937 (requires sufficient water bypass and fish passage, relating to dams).

**Summary of Recommendations**

In summary, the Department provides the following recommendations for the HPBD to address in the amended County Code and DEIR:

1. The current land use ordinance proposes no limits on density or watershed carrying capacity of cultivation sites. The DEIR should assess the carrying capacity of watersheds to support cannabis cultivation.

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[2] Fish and Game Code section 1602 states, in part, that an entity "may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake" without written notification to the Department.

[3] https://static.cdfa.ca.gov/MCCP/document/MCCP%20Factsheet%20Summary-%20California.pdf

2. The DEIR should address amended County Code to include specific penalties or remedies for permit non-compliance and post-permit environmental remediation, and provide adequate staffing to conduct enforcement efforts and compliance review.

3. The DEIR should disclose and analyze the potentially significant impacts from a substantial increase in water demand on streams and rivers.

4. The HPBD should ensure that, as a condition of approval for cannabis cultivation permits, required approvals from the Department and any other applicable regulatory agency is obtained prior to pond development.

5. The HPBD should require a qualified professional delineate streams and wetlands if surface waters are present on a parcel.

6. The HPBD's Cannabis cultivation permitting should prohibit placement of permanent structures within the 100-year floodplain of any stream or river.

7. If lighting is used for cultivation within structures, light should not be visible from outside the structure. The HPBD should not allow the use of lights at night for cannabis cultivation in greenhouses due to the difficulty in fully blocking light escapement, and should ensure that these prohibitions are enforceable, and actively monitored for compliance.

8. The DEIR should include an analysis of potential night light pollution and chronic noise exposure impacts to wildlife, and effective avoidance, minimization and/or mitigation strategies.

9. The DEIR should include detailed analysis of 'take' and potential impacts to CESA-listed species, and require avoidance, minimization and mitigation measures to avoid take or mitigate impacts. In particular, impacts to Coho Salmon related to cumulative impacts from surface water diversion should be included.

10. The DEIR should a) define criteria of a "viable" water source; b) provide standards and requirements for a "localized water management plan"; and c) define the criteria for determining whether groundwater is "non-hydrologically connected."

11. The HPBD DEIR should provide adequate avoidance, minimization and/or mitigation measures (including decommissioning and restoration where appropriate) that address the environmental impacts of past and future cultivation-related road construction, including habitat fragmentation and impacts to sensitive aquatic habitats and species.

12. The amended County Code should not allow new or expanded cultivation on forested parcels.

13. The HPBD should establish maximum limits of allowable cultivation as a proportion of watershed size (e.g., HUC 12 size) to minimize cumulative impacts.

14. The DEIR should define and disclose criteria that the HPBD will use to determine whether any cultivation project requires site-specific CEQA review.

15. The DEIR should include an analysis of the effectiveness of mitigation measures under the current program in avoiding, minimizing or reducing the environmental impacts of cannabis cultivation sites, particularly if the same or similar mitigation measures are proposed for use in the amended County Code.

16. All cannabis cultivators that substantially modify or divert water from a stream are required to submit notification to the Department to obtain a Lake or Streambed Alteration Agreement.

17. The Project should prohibit non-native species introduction to new ponds and that county address the potential environmental impacts from existing introduced species in the DEIR.

We appreciate the opportunity to comment on the Project and look forward to working with the HPBD to effectively regulate commercial cannabis cultivation while addressing its documented environmental impacts. If you have any questions please contact Senior Environmental Scientist (Specialist) Angela Liebenberg at (707) 964-4830 or by e-mail at Angela.Liebenberg@wildlife.ca.gov or Senior Environmental Scientist (Supervisor) Scott Bauer at (707) 441-2011 or by e-mail at Scott.Bauer@wildlife.ca.gov.

Sincerely,

**Curt Babcock**
Environmental Program Manager

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**References**

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| | |
|---|---|
| **From:** | Rebecca Manion |
| **To:** | Lazar, Steve |
| **Subject:** | Scoping Meeting Comment Proposed Amendments to Humboldt County Code Regulating Commercial Cannabis Activities |
| **Date:** | Tuesday, May 16, 2017 11:37:20 AM |

Hi Steve Lazar,

I attended and spoke at the Scoping Meeting to comment about the Humboldt County code regulating cannabis activities. I did not submit a comment sheet so I am doing that now through email...

Name: Rebecca Manion
Organization: California Native Plant Society North Coast Chapter
Mailing Address: California Native Plant Society
North Coast Chapter
P.O. Box 1067
Arcata CA 95521
Email: northcoast_cnps_business@yahoogroups.com

My name is Rebecca Manion and I sit on the steering committee of the California Native Plant Society's North Coast Chapter.

The primary mission of CNPS is to conserve California native plants and their natural habitats. Our chapter encourages the county to carefully consider the effects of cannabis cultivation on Humboldt County's unique ecosystems. It is important that project occurring in habitats that could support rare plant species or natural communities receive proper botanical screening and field surveys by qualified botanists. The CNPS inventory of rare and endangered plants lists 180 species in Humboldt County, many of which meet the definition of Rare or Endangered under CEQA Guidelines sections 15125 and 15380. Additionally, Humboldt County contains several rare natural communities, such as California oat grass prairies and Oregon white oak woodlands, that must be considered under CEQA checklist IV-B.

Please make sure that all project that have the potential to impact native plants and their natural habitats receive the proper screening and that impacts are disclosed and fully mitigated. Additionally, it is important that the county consider the effects of cumulative impacts of cannabis projects.

If you would like to further discuss our concerns, the Steering Committee would be happy to schedule a meeting with you.

Thank you,

Rebecca Manion
Membership Chair

California Native Plant Society
North Coast Chapter
P.O. Box 1067

Arcata CA 95521

| | |
|---|---|
| **From:** | Marion Collamer |
| **To:** | Lazar, Steve |
| **Cc:** | Marion Collamer |
| **Subject:** | Comments on NOP amendments to Humboldt County Code regulating Commercial Cannabis Activity |
| **Date:** | Thursday, May 4, 2017 1:57:39 PM |
| **Attachments:** | Dual logo.jpg |

Dear Mr. Lazar,

I am a rural farmer from Panther Gap , on the Mattole Road near Honeydew. We have made our home and farm here for 17 years and love living on our land. I dream of continuing to live and farm there and passing the ranch on to our children, though I don't know if it's possible. When my husband and I first came to this amazing area this is the only land we could afford, but considered ourselves blessed beyond measure although it is on a private road without access to municipal water or power and on a grade. Many times we tried to afford land in the Valley and although we had many connections, this fertile Prime Ag land was only for the wealthy or those who inherited it.

Currently there is an over production in cannabis which has made the price plummet in recent years. In order to entice workers to live all the way out on our farm we have had to continue to pay a living wage. Opening the application process to more cultivations would put small rural farmer like us at a severe disadvantage. We have always tried to run our buisiness in symbiosis with the beautiful environment that it is in. We put in a well years ago to serve our ag needs without disturbing the wildlife. We implemented a costly solar system that provides most but not all of our electrical needs. Our 3 acre conversion is a tiny portion of the 100 acres on 2 parcels. We are good stewards of the land.

The NOP that would allow for new cultivation and limit expansion on parcels like ours that are off grid, on a private road would severely affect us. We considered RRRing our home but the thought of farming somewhere other than our homestead breaks my heart and we couldn't afford it anyway.It would break up our family to have to work in another location. We have invested so much money and time into the deadlines set forth by the county, and are striving in every way to meet the requirements. We have had to pay many different lawyers, foresters and consultants in an effort to maintain our farm and livelihood . It has actually been a interesting and worthwhile process and we are learning even more about our farm. But I cannot afford to maintain these changes if taxes and overproduction burden our farm to the point that it is no longer viable. We will have to sell and be sharecroppers on someone else's fertile river valley land. Please keep in mind that TPZ or U zoned land can still be a working cannabis farm that preserves the environment while providing a living for a middle income family. Our land is on a moderate grade but was logged extensively before we purchased it. We have been much more gentle and loving to our land than the extraction industries that occupied it previously. I beg you to reconsider opening up more cannabis grows, particularly when rural middle income property holders such as myself are at such a disadvantage. We took the county's previous deadlines seriously and are attempting to be thorough and forthright.

Limiting generator use would be another new proposal that would impact us negatively to the point of being inoperable. While we maintain an costly solar system it falls short of the voltage that is required in an ag setting and we are forced to run small generators occasionally. We service them responsibly and are respectful of the neighborhood and wildlife even though BLM is on one side and the other closest farm is more than 6 miles away. Please don't punish us for using what limited resources we had to create a home and life for ourselves in southern Humboldt. We support the schools and local community and try to integrate the way we live with how we farm. There was a tradition in southern Humboldt of self reliance, living with was well as on the land, and relishing the wild beauty that locals are blessed to call home. I

saw it in the loggers, the ranchers and yes even in the growers.  If more cannabis grows are allowed to open and the historic farms are severely limited from expanding, farmers like myself will be without a home or a living, my dream shattered by our inability to compete with the fortunate few who can afford valley land with access to electricity. This will be only after I have exhausted my savings trying to save my farm. In this mountainous county there are more famers in my situation than the those on Prime Ag. Think of the small rural communities that would suffer when the cannabis money usually flowing in these areas is redirected to town, where there are more services but it is less needed. Thank you for your time, I hope the county and the farmers can come up with a compromise that is good for everyone.

Marion  Collamer
marion@truehumboldt.com
Founding Farmer
True Humboldt and Humboldt Sun Grower's Guild
truehumboldt.com
Like us on Facebook!
Check out our instagram!

"STATEMENT OF CONFIDENTIALITY
The information contained in this electronic message and any attachments may contain confidential or privileged information intended for the exclusive use of the addressee(s). Do not re-post this document anywhere.  If you are not the intended recipient, please notify the sender by reply e-mail and destroy all copies of the original message and any attachments. In accordance with Electronic Communications Privacy Act, 18 U.S.C.§§ 2510-2521."

July 18, 2017

Re: Humboldt's Proposed Commercial Cannabis Land Use Ordinance Changes

Esteemed Humboldt County Supervisors & Planning Department Leadership,

At Compliant Farms Certified, we support approximately 80 cannabis farms in coming into full compliance with county and state environmental regulations. Additionally, we provide numerous others with consulting as needed and otherwise make ourselves available to educate and engage in dialogue with our community.

We take the initiative to study and participate in the public process for policy development related to regulations of the environmental impacts of cannabis cultivation. Our experiences integrating on-the-farm realities with environmental regulations provides us with insight few have.

We have combed over the Proposed Ordinance Policy Areas and Discussion Items presented in Appendix A of supporting materials dated June 7, 2017 for Agenda Item F-2 of the June 13, 2017 Board of Supervisor's meeting (attached here as Appendix A). Following are our informed opinions regarding the proposed changes. Generally, our concerns relate to the development of common sense regulations that protect the environment while providing a viable pathway to success for the small farmers of our county.

## Analysis of Currently Permitted Cultivation

*New/Existing & Outdoor/Mixed/Indoor*

A primary concern is that permitting of "new" cultivation has enormously outpaced permitting of "existing" cultivation. In our opinion, it does not make sense from environmental, social or economic perspectives to expand cultivation areas within Humboldt County without first securing existing operations. As of June 6, 2017, only 11% of the total permitted cultivation area was associated with existing operations.

A trend of permitting large new cultivation farms over smaller existing farms is being established, and this will hinder the ability of small existing farmers to establish the boutique market necessary to stabilize Humboldt County's sustainable cannabis economy.

Without our existing farmers having a secure toehold in the regulated market, the economy of Humboldt County will destabilize as generated revenue leaves the area. Furthermore, a transition away from Humboldt County's existing farming culture will erode the values of community and environment that are at the heart of what makes Humboldt County a special

place to live. Figures 1- 4 and Table 1 below presents the permitted cultivation area for new and existing grows by cultivation type (outdoor, mixed light, indoor).

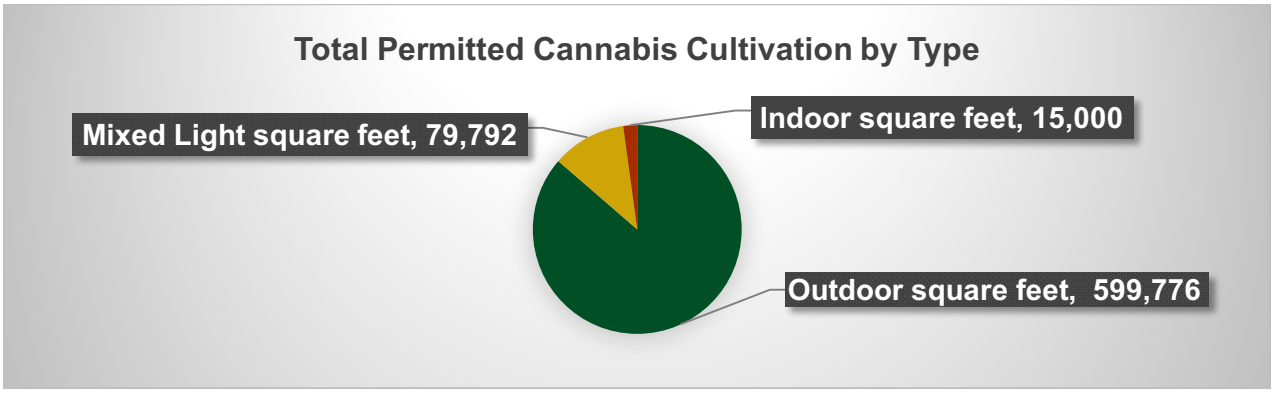


Figure 1. This comparison of the total permitted cultivation area in Humboldt County shows that Outdoor cultivation area has been permitted at a greater square footage than Mixed Light or Indoor cultivation.

Beneficial management practices (BMPs) associated with Outdoor cultivation can provide the foundation for a sustainable community via low cost of inputs, reduced energy consumption, holistic land management, and the potential to regenerate the environment. Therefore, the trend of permitting more Outdoor cultivation as compared to Mixed Light or Indoor cultivation types makes environmental and social sense.

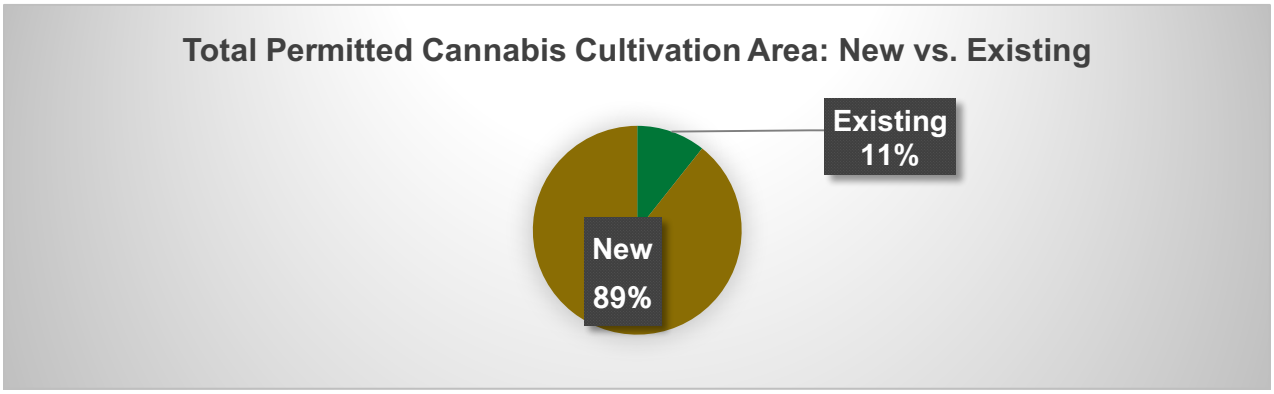


Figure 2. This comparison of the total permitted cultivation area in Humboldt County shows that permitting of New cultivation has vastly exceeded permitting of Existing cultivation.

New cultivation requires disturbance of resources not yet developed for cannabis activities. Creating more disturbance before the potential negative impacts associated with Existing cultivation are remedied compounds the resource use associated with cannabis cultivation and does not provide a pathway to a sustainable economy. A preferred trend is to preferentially permit Existing cultivation prior to permitting New cultivation unless the New cultivation is affiliated with relocation of Existing operations.

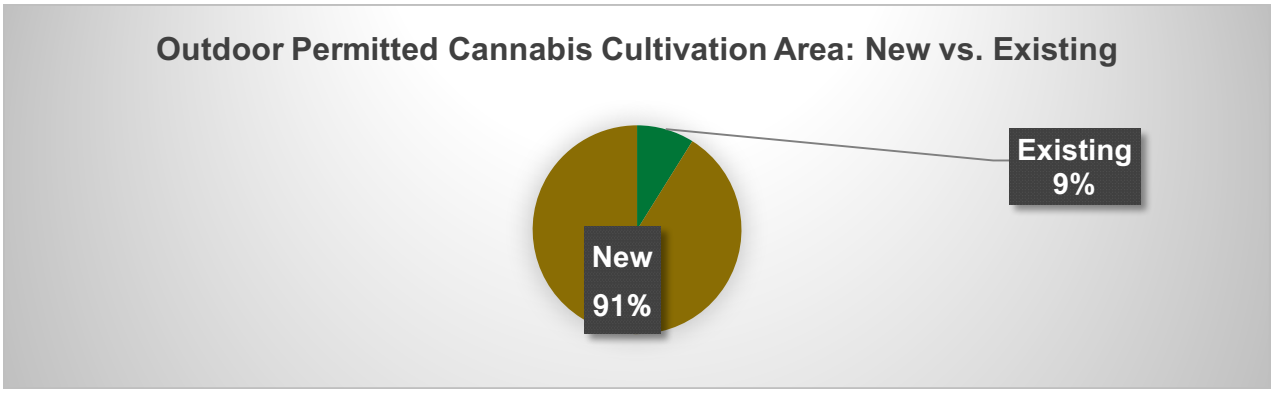


Figure 3. This comparison of the total permitted Existing Outdoor cultivation area vs. New Outdoor cultivation area shows that permitting of New Outdoor cultivation vastly exceeds Existing Outdoor cultivation. Again, the creation of new disturbance prior to remediation of existing disturbance associated with cultivation does not provide a pathway to sustainability.

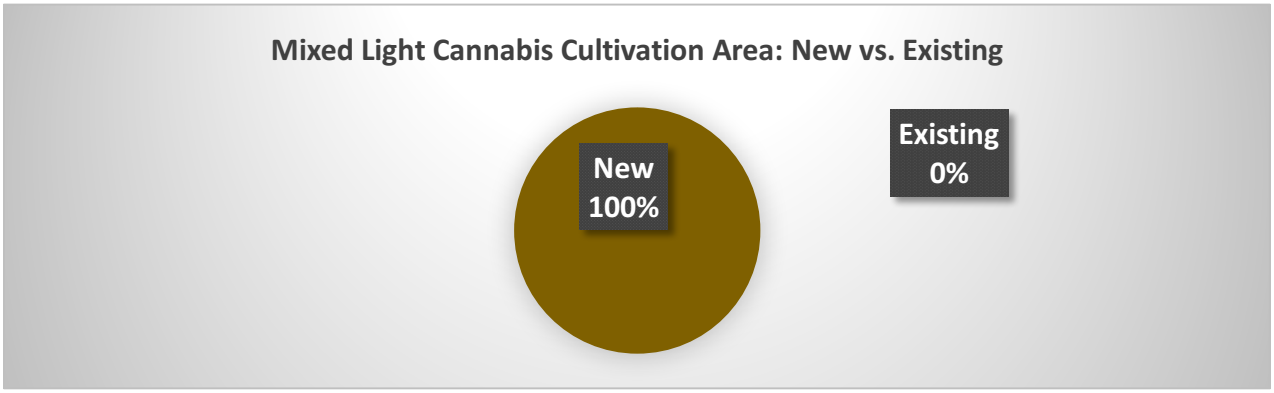


Figure 4. This comparison of the total permitted Existing Mixed Light cultivation area vs. New Mixed Light cultivation shows that only New Mixed Light cultivation has been permitted.

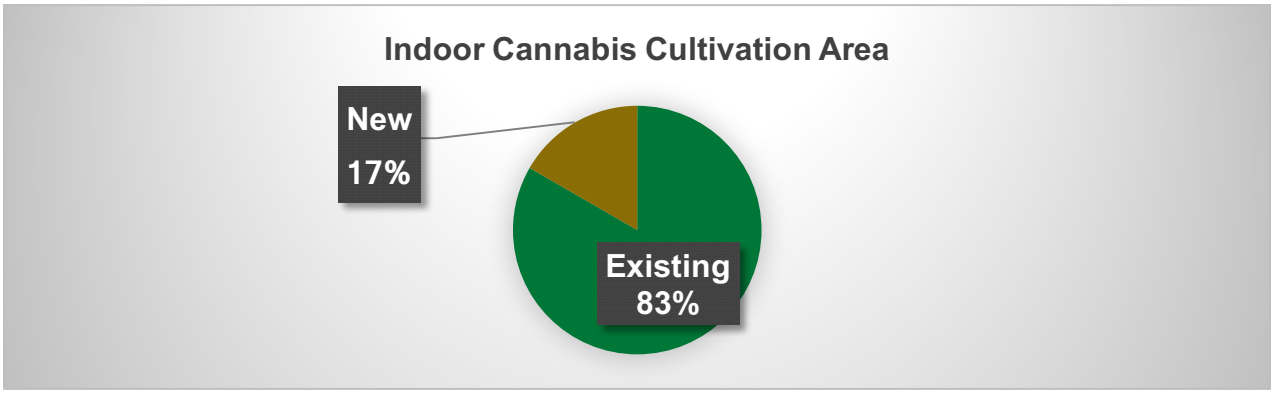


Figure 5. This comparison of the total permitted Indoor cultivation area vs. New Indoor cultivation area shows that Existing Indoor cultivation has been preferentially permitted. Indoor cultivation requires a vastly greater resource use than other cultivation types, thus permitting of New Indoor cultivation ought not be prioritized.

Table 1. Humboldt county permitted cultivation area by type as of June 6, 2017

| Apps # | Cultivation Activity | Existing Square Footage | New Square Footage |
|---|---|---|---|
| 10259 | Outdoor | 25,720 | 7,840 |
| 10261 | Outdoor | 0 | 43,560 |
| 10262 | Outdoor | 0 | 43,560 |
| 10263 | Outdoor | 0 | 43,560 |
| 10373 | Outdoor | 17,680 | 5,950 |
| 10374 | Outdoor | 0 | 43,560 |
| 10375 | Outdoor | 0 | 43,560 |
| 10456 | Outdoor | 0 | 10,000 |
| 10406 | Outdoor | 0 | 304,920 |
| 10251 | Outdoor | 9,896 | 0 |
| Total Outdoor Cultivation Area | | 53,296 | 546,480 |
| 10487 | Mixed Light | 0 | 9,792 |
| 10342 | Mixed Light | 0 | 10,000 |
| 10260 | Mixed Light | 0 | 10,000 |
| 11606 | Mixed Light | 0 | 10,000 |
| 10566 | Mixed Light | 0 | 10,000 |
| 11428 | Mixed Light | 0 | 10,000 |
| 11447 | Mixed Light | 0 | 10,000 |
| 10369 | Mixed Light | 0 | 10,000 |
| Total Mixed Light Cultivation Area | | 0 | 79,792 |
| 10258 | Indoor | 2,500 | 2,500 |
| 10237 | Indoor | 5,000 | 0 |
| 10568 | Indoor | 5,000 | 0 |
| Total Indoor Cultivation Area | | 12,500 | 2,500 |
| Total Cultivation Area (all types) | | 75,156 | 628,802 |

## Comments by Section on the Proposed Ordinance Policy Areas and Discussion Items

### Outdoor/Mixed Light Cultivation

1. Outdoor and Mixed Light Cultivation differ in the quantity of energy needed to support cannabis cultivation. Reduced energy use results in less road travel, less infrastructure needs, and a lighter impact on natural resources in general. Thus, Outdoor cultivation permits ought to be more easily obtained than Mixed Light cultivation permits.
2. No sunset date ought to be set for permit applications associated with existing sites. Doing so will result in continued environmental degradation as un-permittable 'existing' sites become abandoned without needed restoration due to the lack of value for the land resource.
3. Permitting of 'new' cultivation not associated with RRR ought to be a secondary priority to permitting of 'existing' cultivation.

### Industrial Areas

1. U with existing commercial use ought to be permissible for processing, manufacturing, retail, and distribution activities.

### Slope

1. When graded flats on existing sites meet Humboldt County grading permit standards and a grading permit is obtained, no discretionary permit ought to be required. The Humboldt County grading ordinance is rigorous enough to assure slope integrity of graded flats on slopes greater the 15%. Discretionary permit requirements are punitive to existing cultivators and will hinder the feasibility of compliance.
2. When environmental conditions can be improved by on-site remediation and reconfiguration of existing cultivation areas, doing so ought to be permissible. Furthermore, remediation and reconfiguration ought not to require costly bond fees or trigger additional permitting requirements. Rather a remediation and reconfiguration plan ought to be submitted with the application to be reviewed for approval.

### Timberland Conversion

1. Most existing timberland conversions lack proper forest management since the conversion took place. Bringing all existing parcels with conversions into compliance with Performance Standards should also be addressed. This should include the management of forest margins relative to the conversion site, fuel load reduction of over stock, and active slope revegetation and maintenance.

## Energy Use- The Ancillary Nursery Activities (Propagation) or Mixed Light Cultivation

1. Approved off-site location for storage of ancillary mother plants ought to allow for co-mingling of mothers from multiple license holders to allow for ease of access for rural farms.
2. Ancillary Nursery activities ought to allow for co-mingling of ancillary nursery stock from multiple license holders to allow for ease of access for rural farms.
3. All energy requirements should have a completed energy audit to determine the total energy use and thus what amount 80% renewable would be. The 20% supplied by non-renewable should include onsite carbon sequestration to offset the production of greenhouse gas emissions. This can include fuel load reduction, forest management and habitat restoration. Alternative could be purchasing local carbon credits in the form of funding local nonprofits in their efforts to preserve and restore habitats.

## Application Deadline for "Existing" Sites

1. The 6-month sunset date for permitting of "existing" sites ought to be removed. Removing the ongoing opportunity for permitting of "existing" sites will allow for ongoing environmental degradation and promote illicit activities. Additionally, the removal will decrease land values long into the future for lands with abandoned existing activities.
2. The RRR program ought to be amended so that the $50,000.00 bond requirement is removed. Current banking limitations for cannabis related businesses makes obtaining a bond extremely difficult. Additionally, entering into the RRR program ought not trigger a permitting requirement for non-cultivation related activities on the property such as residences.

## Water Source

1. Expand the forbearance requirement to include spring diversions.
2. Dry farming activities ought to meet the same forbearance periods and permitting requirements as associated with all other farming activities. If a cultivator is truly dry farming the quantity of water needed during the forbearance period will be greatly reduced requiring less storage. Additionally, excluding dry farming activities from the forbearance period is punitive to non-dry farming activities that use very little water, and may promote an extended use of ancillary propagation and nursery areas.
3. We support the forbearance requirement for wells. Unregulated groundwater extraction has long term negative effects on environments.

## Water Storage

1. Ponds provide a valuable water resource to wildlife. Egress structures should be implemented to protect wildlife. Exclusionary fencing is dangerous to wildlife and interrupts corridors.
2. Ponds should have active revegetation protocols on the southern aspect to provide shade and thus reduce evaporative rates.

3. New ponds should be designed to be filled exclusively with rainwater including conveyance from nearby structures.
4. Bladders should only be a short-term water storage solution and new bladders should not be allowed. Existing bladders should be phased out at a certain percentage of volume each year until all water storage is via tanks or pond. Creating a basin/berm for bladders is an unnecessary disturbance that can be minimized by creating areas for rigid storage.

### Processing Facilities (Appurtenant/On-Site)

1. Rather than limit the on-site sewage disposal system to septic systems, other fully contained sewage disposal systems ought to be allowed. Examples of alternative sewage disposal systems that ought to be allowed are approved pit privy and composting toilets. Properly designed and installed pit privy or composting toilet systems do not threaten human or environmental health.

### Toilet Facilities

1. Rather than limit the on-site sewage disposal system to septic systems, other fully contained sewage disposal systems ought to be allowed. Examples of alternative sewage disposal systems that ought to be allowed are approved pit privy (DEH has allowances for them) and composting toilets (Sonoma County is in the planning phases for permitting their use). Properly designed and installed pit privy or composting toilet systems do not threaten human or environmental health.

### Site Reconfiguration Criteria Existing Sites

1. These proposed changes make sense and we support them. They will easily improve environmental conditions while maintaining commercial use of properties.

### Existing Operators - Specialty Cottage Provision

1. The meaning of the statement “parcels must be planned/zoned where existing sites are principally or conditionally permitted” is unclear.
2. Encouragement and feasibility of permitting of existing small cultivation sites is of utmost importance.

### Retirement, Remediation, and Relocation

1. The RRR program ought to be amended so that the $50,000.00 bond requirement is removed. Current banking limitations for cannabis related businesses makes obtaining a bond extremely difficult. Additionally, entering into the RRR program ought not trigger a permitting requirement for non-cultivation related activities on the property such as residences.

### Indoor Cultivation

1. No expansion of allowable zones for Indoor cultivation ought to occur. The resource use associated with indoor commercial cultivation does not align with community values of securing and promoting traditional sun grown farming practices.

## Nurseries & Community Propagation Centers

1. Where limited eligible parcels exist within a limited geographic area the zoning requirements for Community Propagation Centers ought to be expanded to allow for ease of access and overall feasibility.

## Canna-tourism

1. Tours and visits by the public ought to be allowable for any permitted commercial cannabis business.
2. Remove the requirement for access to be provided exclusively by publicly maintained roads. All roads leading to permitted commercial cannabis businesses are required to be brought to high standards that often exceed the quality of county roads. The standardization set forth in the ordinance is sufficient to provide safe access to the public and emergency vehicles, therefore the requirement of access via publicly maintained roads is punitive.

## Microbusinesses

1. Remove the requirement for access to be provided exclusively by publicly maintained roads. All roads leading to permitted commercial cannabis businesses are required to be brought to high standards that often exceed the quality of county roads. The standardization set forth in the ordinance is sufficient to provide safe access to the public and emergency vehicles, therefore the requirement of access via publicly maintained roads is punitive.
2. Reduce required proportion of renewable energy sources from 100% to 80%.

We are confident that with careful consideration and thoughtful dialogue common sense regulations for the commercial cultivation of cannabis can be achieved. Common sense regulations will be financially and temporally achievable by most existing farms and promote environmentally regenerative farming practices.

Please do not hesitate to reach out to us for further discussion of the proposed changes to Humboldt County's Commercial Cannabis Land Use Ordinance.

With our best regards and greatest hopes for a sustainable future,

Hollie Hall, PhD
Soil and Water Scientist
Owner, Compliant Farms Certified

Dan Mar, CPD
Permaculture Systems Designer
Owner, Compliant Farms Certified

Appendix A: Proposed Ordinance Policy Areas and Discussion Items

AGENDA ITEM NO.
F-2

# COUNTY OF HUMBOLDT

For the meeting of: June 13, 2017

Date: June 7, 2017

To: Board of Supervisors

From: John Ford, Director of Planning and Building Department

Subject: Commercial Cannabis Land Use Ordinance – Options Review

RECOMMENDATION(S):

That the Board of Supervisors:

1. Request that staff present the project.
2. Invite public comment on the approach to the Commercial Cannabis Land Use Ordinance (CCLUO); and.
3. Provide comments on the update of the CCLUO options presented in the staff report [Attachment 1].

SOURCE OF FUNDING:

Budget: Planning & Building Department – Cannabis Services Division (1100-268). Funding for this work ($239,937) is included in the FY 2016-17 and proposed FY 2017-2018 budgets for the Planning & Building Department – Cannabis Services Division.

Prepared by Michael Richardson
Michael Richardson, Supervising Planner

CAO Approval

REVIEW:
Auditor _____ County Counsel NAP for JWE Human Resources _____ Other _____

TYPE OF ITEM:
_____ Consent
__X__ Departmental
_____ Public Hearing
_____ Other _____

PREVIOUS ACTION/REFERRAL:

Board Order No. I-1

Meeting of: April 11, 2017

**BOARD OF SUPERVISORS, COUNTY OF HUMBOLDT**
Upon motion of Supervisor Seconded by Supervisor

Ayes
Nays
Abstain
Absent

SEE ACTION SUMMARY

and carried by those members present, the Board hereby approves the recommended action contained in this Board report.

Dated: _____

By: _____

**Kathy Hayes, Clerk of the Board**

DISCUSSION:
The purpose of this item is to review concepts to be implemented in the proposed Commercial Cannabis Land Use Ordinance (CCLUO). These concepts will be evaluated in an environmental impact report (EIR). The county is now under contract with Ascent Environmental to assist with preparation of the EIR for these zoning ordinance amendments. These concepts are an expansion of the one-page list of ordinance objectives reviewed by the Board on April 11, 2017. They are given more definition and substance in Attachment 1 and in this staff report. The concepts are specific enough to assess environmental impacts in the EIR, but are not in final ordinance form.

The proposed ordinance amendments include the following features:

- Expand the scope of the Ordinance Nos. 2554 and 2559 to include commercial marijuana operations for adult recreational use now authorized by Proposition 64, the Adult Use of Marijuana Act (AUMA),
- Expand the areas where new cultivation or expansion of existing cultivation sites will be permitted to locations with or without prime agricultural soils,
- Restrict or prohibit generator use,
- Apply special requirements/limitations for projects located within spheres of influence or community areas

The Planning Commission reviewed these concepts on June 1, 2017. Staff will present their comments to the Board at the meeting on June 13, 2017. The ordinance options and comments from the Planning Commission and Board of Supervisors will then be used in preparation of the new ordinance.

The Notice of Preparation for the EIR was recently released, and the Department held a scoping meeting on May 12, 2017 to receive public agency and public comments on the scope and content of the EIR. The comments from the scoping meeting and the written comments received in response to the Notice of Preparation have informed the direction of the ordinance options presented in this staff report. The Department expects to present the full draft ordinance amendments to the Planning Commission and Board of Supervisors in October / November of this year.

FINANCIAL IMPACT:

The contractual and salary funding for this work is included is in budget unit 1100-268 in fiscal year 2016-17, in the amount of $292,000. The proposed 2017-18 budget includes $324,000, in budget unit 1100-282.

This item supports the Board's 2017 Strategic Framework by pro-actively evaluating the environmental effects of amendments to the County Code designed to refine and implement ongoing efforts to daylight the local cannabis industry. Success in this endeavor will include support for business, workforce development and creation of private-sector jobs, streamlining of the permit processes, and advancing local interests concerning natural resources while engaging in ongoing discussions of our regional economic future, as well as statewide concern.

OTHER AGENCY INVOLVEMENT:

The EIR and associated amendments to County Code are a continuation of the county's prior efforts to regulate land use activities involving cannabis. During development of the most recent phase of regulations addressing commercial activities, other agency consultation included: North Coast Regional Water Quality Control Board, California Department of Fish & Wildlife, Local Humboldt County Native American Tribes, California Department of Forestry and Fire Protection, Humboldt County Health & Human Services - Environmental Health Division, and Humboldt County Public Works – Land Use Division. Additionally, it is expected that the following agencies will be consulted during the environmental review and legislative process: Bureau of Medical Cannabis Regulation, Department of Consumer Affairs, Department of Food and Agriculture, Department of Pesticide Regulation, State Water Resource Control Board – Division of Water Rights, North Coast Unified Air Quality Management District, Board of Equalization, Franchise Tax Board, Department of Justice, Department of Public Health, Industrial Welfare Commission, California Coastal Commission, State Board of Forestry, Division of Occupational Safety and Health, California Environmental Protection Agency, U.S. Army Corps of Engineers, U.S. Fish & Wildlife Service, and the California Agricultural Labor Relations Board.

Additionally, the Department has been in communication with County Counsel and the County Administrative Office on the transmittal of this draft document.

ALTERNATIVES TO STAFF RECOMMENDATIONS:

The Board may choose to direct additions, modifications, or deletions to the concepts being presented for preparation of the draft ordinance.

ATTACHMENTS:

Attachment 1: Proposed Ordinance Policy Areas and Discussion Items

**ATTACHMENT 1**

**PROPOSED ORDINANCE POLICY AREAS AND DISCUSSION ITEMS**

## 1) OUTDOOR/MIXED LIGHT CULTIVATION

DEFINITIONS

**"New" Cultivation:** Permits proposing commercial cultivation of cannabis on a parcel where no cultivation was ever conducted prior to January 1, 2016.

**new cultivation sites no longer must be located on or within parcels with prime soils**

**"Existing" Cultivation:** Permits for commercial cultivation of cannabis on a parcel where cultivation was conducted prior to January 1, 2016.

Changes from existing ordinance and rationale for proposed changes: Continuing to differentiate between new cultivation proposals and existing cultivation sites allows the County to set a new sunset date for permit applications associated with existing sites, which will not apply to new cultivation applications. Eliminating the prime agricultural soils requirement will reduce the demand for sites with prime agricultural soils.

***ELIGIBILITY CRITERIA** (all applications must meet or exceed criteria in each below category as applicable)*

ZONING/LAND USE

RESOURCE PRODUCTION AND RURAL RESIDENTIAL AREAS

**new & existing sites**

- Cultiv. Area must be located within portion of project parcel planned and zoned for Agricultural Uses
  - Zonings – Resource: AE, AG, FR – principally permitted
    - U (accompanied by agricultural land use designation) – principally permitted (unless AR)
    - TPZ (existing sites only / discretionary permit req'd)
    - RA (with discretionary permit)
  - Land Use - Resource Production: AE, AG, AL
    - AR (discretionary permit req'd)
    - T (existing sites only / discretionary permit req'd)

Changes from existing ordinance and rationale for proposed changes: Requiring a discretionary permit in areas planned AR will help address concerns with cultivation near residential areas.

INDUSTRIAL AREAS

**new sites**

- parcels planned or zoned for industrial uses or;

- parcels zoned unclassified and developed with an existing industrial use
- Zonings – C-3, ML, MH, U (where developed with an existing industrial use)
- Land Use – IG, CG
  - Up to 1 acre of cultivation may be principally permitted (Outdoor, Indoor, Mixed Light, or a combination of any or each not exceeding a total of 1 acre)
  - Must comply with Specialized Performance Standards for adaptive reuse and management where new cultivation activities proposed on parcels currently host to buildings and other infrastructure developed in association with past or ongoing Industrial Use(s).
  - Additional permits for cultivation in excess of 1-acre may be allowed with a Conditional Use Permit.
  - Properties may also host new Outdoor and Mixed Light Cultivation relocation by sites participating in the RRR program, as a principally permitted use.

Changes from existing ordinance and rationale for proposed changes: Adaptive reuse standards would protect existing industrial infrastructure for future industrial uses.

SLOPE

**new sites only**

- slope within proposed cultivation area must not exceed 15%
- Slope means "natural grade" (the surface of the ground prior to grading for development)

**existing sites**

- discretionary permit required if one or more existing cultivation sites are located within areas exceeding 15% slopes. On-site remediation and reconfiguration to areas of 15% or less slopes subject to Performance Standards for Site Reconfiguration.

Changes from existing ordinance and rationale for proposed changes: On-site remediation and reconfiguration reduces environmental impacts of existing cultivation sites.

TIMBERLAND CONVERSION

**new sites**

- no new conversions of timberland authorized.
- "new" conversion means a conversion performed with or without the approval of Cal-FIRE, which occurred after 12/31/15

**existing sites**

- timberland conversion may only occur in association with on-site remediation and reconfiguration activities, subject to Performance Standards for Site Reconfiguration.
  - must comply with reconfiguration performance standards
- No expansion of the total area of conversion for cannabis cultivation (existing on or before 12/31/15) may result. A discretionary permit is required.

Changes from existing ordinance and rationale for proposed changes: No significant changes proposed.

PARCEL SIZE / CULTIVATION AREA LIMITS

**existing sites**

- 2,500 ft.² of Cultivation permitted on AE zoned parcels less than 1-acre in size with a CUP (per CMMLUO)
- All other eligible zones require 1 acre or larger parcel (discretionary permit required if less than 5 acres in size)
- 5,000 ft.² of cultivation principally permitted on parcels between 5 acres and 10 acres in size

**new & existing sites**

- 5-acre minimum (discretionary permit required if less than 10 acres in size)

*Parcels 10 acres or larger*

- 10,000 ft.² of cultivation (outdoor, mixed light, or combination of both not exceeding 10,000 ft.²) principally permitted on parcels 10-acres or larger in size
- CUP required for greater than 10,000 ft.² of cultivation. Must meet or exceed all other eligibility criteria categories (Zoning/Land Use, Slope, Timberland, Setbacks, Road Standard, Energy) Maximum of 1-acre and or 4 permits, whichever is less. Cultivation Area identified in permits for "Mixed Light" must not exceed state licensing restrictions.
- Parcels over 320 acres qualify for 1-acre per 100-acre with CUP (must also meet slope criteria) as outlined in CMMLUO.

Changes from existing ordinance and rationale for proposed changes: Increasing the minimum parcel size from 5 to 10 acres (for principally permitted cultivation sites) will help reduce potential conflicts between cultivation sites and neighboring residential areas.

SETBACKS (for Cultivation Areas & On-site Processing)

**new and existing sites**

- 30 foot setback from all property lines
- 300 foot setback from residences on neighboring properties (300 setback does not apply to properties where a permit has been issued or is being sought for commercial cultivation)
- A discretionary permit is required if cultivation is located or proposed within the Sphere of Influence of an incorporated City or within 1000 feet of City Limits.
- eliminate current setback from School Bus Stops
- 600 foot setback from any School, Church or other Place of Religious Worship, Public Park, or Tribal Cultural Resources
- A setback of less than 300 or 600 feet (but greater than or equal to 30 feet) may occur, with the express consent of all affected land owners, representatives, or occupants. A discretionary permit is required.

Changes from existing ordinance and rationale for proposed changes: Establishing a 300 foot setback from residences reduces noise and light impacts from new cultivation. Discretionary permit requirements in areas adjacent to cities will help reduce conflicts between new cultivation and neighboring residential areas and/or cities that may not allow cultivation.

ENERGY USE – Ancillary Nursery Activities (Propagation) or Mixed Light Cultivation

**new and existing sites**

- Projects served exclusively by grid power or 100% on-site renewable principally permitted

**existing sites**

- where grid power is not available, projects utilizing a renewable energy system (solar, wind, micro-hydro with battery storage) providing 80% or more of the annual cannabis-related energy demand (nursery and/or mixed light cultivation activities) shall be principally permitted.
  - an energy budget must be included with the permit application detailing all monthly cultivation-related energy use as well as on-site renewable energy generation and storage capacity.
- Ancillary Nurseries and/or Mixed Light Cultivation served by less than 80% renewable energy (i.e. generators) subject to discretionary permit.
  - Ancillary mother plants must be kept at an off-site approved location (utilizing grid power and/or renewable intertie) during off-season required.
  - Mixed Light and/or Nursery activities restricted to March thru August (deprivation season and end of season restocking post-harvest)

Changes from existing ordinance and rationale for proposed changes: Requiring use of renewable energy sources will reduce potential noise, fire hazard, and greenhouse gas emission impacts from generators.

APPLICATION DEADLINE FOR "EXISTING" SITES

- Permits for existing sites (which do not meet all eligibility criteria) for new cultivation will not be accepted following the passage of 6 months from the effective date of the regulations.
- Permit resumed or continued operation of eligible "existing" sites, if application is filed within 3 months of the effective date of the regulations. Provide opportunity for "provisional" permitting, subject to a compliance agreement.
- Require that all operations be suspended if 3 month deadline not met.
- Provision for Board modification of deadlines through resolution and accompanying ordinance amendments.
- Applications will continue to be accepted for proposals involving remediation and relocation pursuant to RRR program.

Changes from existing ordinance and rationale for proposed changes: A 3 and 6 month deadline will incentivize submittal of applications from those with existing cultivation sites, while providing for continued operation in limited circumstances.

ROAD STANDARD **new & existing sites** | three-part test

*PART 1 – Functional Capacity*

- access to the subject property must be available via publicly maintained roadways or private road systems meeting Category 4 road standard (or same practical effect).
- if access to the project parcel provided exclusively via publicly maintained roadways, no further analysis required / principally permitted.
- "publicly maintained roadways" shall be all road systems that are available for year round travel by the general public, which are maintained by the County of Humboldt, or State or Federal Agencies
- If access to the subject property partly provided via a private road system, an analysis of the functional capacity of all private road systems utilized must be included with any permit application.
- The analysis must be prepared by a licensed engineer or similarly qualified professional.

*PART 2 – Road Design and Maintenance – Water Quality Protections*

- if access to the project parcel provided exclusively via publicly maintained roadways, no further analysis of road design required / principally permitted.
- If access to the subject property partly provided via a private road system, an analysis of the design and maintenance of all private road systems utilized must be included with any permit application.
- The analysis must be prepared by a licensed engineer or similarly qualified professional. Analysis performed in association with preparation of a Water Resource Protection Plan (WRPP) performed in association with enrollment under the Regional Water Quality Control Board's Waiver of Waste Discharge (Order # 2015-0023) may be provided if covering all relevant private road systems.
- The principal objective of the roadway design and maintenance analysis is to identify road characteristics and maintenance concerns which conflict with common best management practices for prevention of point-source and non-point source discharges of sediment or other pollutants which constitute a potential threat to water quality.
- Best Management practices (BMPs) shall include, but are not limited to:
  - Standard Conditions 1 & 2 (Site maintenance, erosion control, and drainage features and Stream Crossing Maintenance) and associated BMPs described under the Regional Water Quality Control Board's Waiver of Waste Discharge Requirements (Order # 15-0023)
  - Relevant Road maintenance and Design Best Practices identified in the latest edition of the 5 Counties Roads Salmon Conservation Program Roads Manual.
  - Relevant Road maintenance and Design Best Practices identified in the latest edition of the "Handbook for Forest, Ranch and Rural roads" prepared for the Mendocino County Resource Conservation District.
- Where three or more permit applications have been filed for commercial cultivation (new or existing), on parcels that are served by a shared private road system, the owner of each

property must consent to join or establish a relevant Road Maintenance Association prior to operation (for new permits) or non-provisional approval (existing). This requirement shall also apply to existing permittees seeking to renew their permit.

*PART 3 – Dead End Road Length*

- Projects that are located more than 2-miles (measured in driving distance) from the nearest intersection with a publicly maintained road or private road that is part of a system providing viable secondary access by emergency vehicles and personnel, including wildland fire equipment, shall be subject to a discretionary permit
  - with the exception of eligible existing operators seeking a permit pursuant to the Specialty Cottage provisions (2,500 ft.$^2$ of mixed light cultivation or 25 or less plants grown outdoors)

*Private Road System Evaluations*

- All observations and recommendations shall be summarized in a written report describing and documenting existing road conditions and capacity, and road design and maintenance characteristics.
- Same practical effect means an exception or alternative with the capability of providing equivalent access characteristics, including but not limited to: accommodating safe two-way travel and traffic by regular users in passenger vehicles, and access by emergency wildland fire equipment and simultaneous safe civilian evacuation in the event of a wildland fire.
- The principal purpose of the roadway evaluation is to document compliance with functional capacity and relevant water quality protections of the road standard, and identify all road segments that do not comply with the standard or same practical effect. Where the private roads systems contains segments which do not meet these standards for capacity and water quality protections, the report must identify and prescribe specific road system improvements that will promote compliance, to the greatest extent practicable, or as determined sufficient by the Department of Public Works, Land Use Division.
- Projects located on private road systems not meeting the functional capacity and road design standards shall be subject to a discretionary permit, with the requirement that private road segments be brought up to minimum standards.
- with the exception of eligible existing operators seeking a permit pursuant to the Specialty Cottage provisions (2,500 ft.$^2$ of mixed light cultivation or 25 or less plants grown outdoors)

Changes from existing ordinance and rationale for proposed changes: Establishing road standards will improve traffic safety, reduce sediment delivery into streams and reduce risks associated with wildland fire hazards.

***PERFORMANCE STANDARDS*** *(all approved permits must meet or exceed standards in each below category as applicable)*

GENERATORS – Noise Standards

- Generators must be inaudible within 30 feet of generator location.

Changes from existing ordinance and rationale for proposed changes: Limiting generator noise reduces noise impacts on wildlife and surrounding properties.

WATER SOURCE

- Forbearance (or modified forbearance with consent of CDFW) still required for all cultivation reliant on in-stream diversions. Forbearance also required for wells.
- Dry farming shall be authorized without requiring forbearance and storage, provided irrigation is limited to ancillary propagation and nursery areas ahead of in-ground planting.
- Dry farming shall include but is not limited to: cultivation within floodplains and alluvial terraces adjacent to major watercourses, where plants are placed in native soil and are able to receive water via subsurface hydrological connectivity.

Changes from existing ordinance and rationale for proposed changes: Establishing water use standards will protect biological resources associated with streams and rivers during the dry periods of the year, while recognizing and rewarding the reduced environmental impacts associated with dry farming techniques.

WATER STORAGE

**All water storage**

- Grading permits for construction of ponds, above-ground storage tanks, or bladders intended to be used for future or existing on-site cannabis irrigation shall not be issued ahead of the Cannabis permit review process.

*Ponds*

- Except in limited circumstances, ponds shall be located "off-channel" from nearby watercourses and adequately setback from nearby streams, springs, and other hydrologic features.
- To prevent occupancy by and survival of non-native bullfrog species, ponds shall be designed to allow for them to be drained, which shall occur on an annual basis.
- Where an existing or proposed pond is filled from, or outlets to a nearby stream or wetland, permits and review from the Department of Fish & Wildlife shall be required prior to project approval.
  - Introduction of non-native species is prohibited.
- Ponds shall be adequately fenced to prevent them from attracting and endangering wildlife
- Ponds shall be designed with pathways enabling escape by local wildlife. These may include rock-lined portions of the perimeter or similar features providing equivalent means of egress.

*Bladders*

- Must include secondary containment.

- At minimum, secondary containment shall include a contiguous earthen berm perimeter.
- The berm must be at least one foot taller than the height of the enclosed bladder(s) when full, to provide for sufficient freeboard in the event of a failure.
- A grading permit shall be required
- Bladders proposed to be located within areas subject to localized flooding must include provisions for anchoring.

Changes from existing ordinance and rationale for proposed changes: Establishing standards for water storage will reduce impacts to wildlife and improves safety for humans.

PROCESSING FACILITIES (APPURTENANT / ON-SITE)

- Must have grid power or 80% on-site renewables
- Must be served by publicly maintained road or private road system meeting road standards
- Must have an approved on-site sewage disposal system (septic)

Changes from existing ordinance and rationale for proposed changes: Requiring use of renewable energy sources will reduce potential noise, fire hazard and greenhouse gas emission impacts from generators. Establishing road standards will improve traffic safety, reduce sediment delivery into streams and reduce risks associated with wildland fire hazards. Setting septic system requirements will prevent water quality impacts and reduce potential impacts from human and wildlife exposure to sewage.

TOILET FACILITIES

- Application must specify means of sewage disposal
  - On-site waste treatment system (septic)
  - Portable toilet(s)
  - Use of seasonal RV with closed system or septic hookup

Changes from existing ordinance and rationale for proposed changes: Sewage disposal system requirements will reduce potential impacts from human and wildlife exposure to sewage.

PRIME SOILS (new or existing cultivation)

- If cultivation located on prime soils, total cultivation area restricted to 20% of area of prime soils
- 20% limitation not applicable to cultivation within non-prime areas meeting slope criteria.

Changes from existing ordinance and rationale for proposed changes: Continuing to limit use of prime soils while allowing new cultivation on non-prime lands will help reduce demand on sites with prime agricultural soils, while providing opportunities for new cultivation activities in appropriate settings.

## ADAPTIVE REUSE OF DEVELOPED INDUSTRIAL PROPERTIES

- Development of additional buildings or infrastructure only allowed once existing infrastructure has been fully occupied, pursuant to the principles of adaptive reuse.
  - Interior changes or additions to facilities must not prevent future re-occupancy by new uses which are compatible with the base zoning district or consistent with historic prior operations.
  - all newly constructed facilities must comply with all development standards of the zone
  - Development of additional buildings or infrastructure only allowed once existing infrastructure has been fully occupied.
  - all newly constructed facilities must comply with all development standards of the zone

Changes from existing ordinance and rationale for proposed changes: Adaptive reuse standards will protect existing industrial infrastructure for future industrial uses.

## LIGHTING PERFORMANCE STANDARDS **new & existing sites**

- Carry forward existing provisions of the CMMLUO:
  - Lighting used between sunset and sunrise must be shielded so that little to no light escapes
  - Compliance with International Dark Sky Association standards

Changes from existing ordinance and rationale for proposed changes: No significant changes are proposed.

## SITE RECONFIGURATION CRITERIA **existing sites**

- Where an existing site does not conform to one or more performance standards or certain eligibility criteria, or cannot comply with local, state, or federal regulatory requirements, reconfiguration of the cultivation site and associated infrastructure may be permitted.
  - Where one or more lawfully separate parcels are contiguous or accessed by a shared private road system, and are owned or managed by a single applicant, consolidation and reconfiguration utilizing multiple parcels may be permitted.
    - Reconfiguration between one or more separate applicants under similar conditions may also occur, provided:
      - The application must include a binding agreement signed by all owners, applicants, and relevant parties
      - Permit applications may be filed jointly or separately
      - permits shall be concurrently processed and scheduled for decision
- New areas of a project parcel targeted for development and overall site design must represent the best opportunity for compliance with all relevant regulatory requirements, including those of which the site currently conforms.
- Reconfiguration plans must be prepared by an engineer or similarly qualified professional familiar with local and state water quality protections and requirements.

- A Biological Resource Protection Plan must also be included. The plan shall be prepared by a qualified professional and evaluate whether prior unpermitted development or disturbance has occurred within a Streamside Management Area, Sensitive Plant Community, or area of similar biological sensitivity.
- All new timberland conversion proposed in association with cultivation site reconfiguration must not exceed the areas of existing conversion to be relocated.
  - existing cultivation areas to be relocated must be restored to pre-disturbance conditions and restocked and/or managed to promote recovery by native vegetation and tree species.
- existing interior driveways and road networks may be reconfigured to achieve better design and compliance with road standards and watercourse protections.
  - all relocated road segments must be fully decommissioned and restored to pre-disturbance conditions or mothballed and stabilized to insure that they are no longer a threat to water quality. Relocated road systems occupying the site of converted timberland shall be restocked and/or managed to promote recovery by native vegetation and tree species.

Changes from existing ordinance and rationale for proposed changes: Encouraging on-site remediation and reconfiguration reduces environmental impacts of existing cultivation sites.

***EXCEPTIONS TO PERFORMANCE STANDARDS***

EXISTING OPERATORS - SPECIALTY COTTAGE PROVISION

- Parcels must be planned/zoned where existing sites are principally or conditionally permitted
- Parcel must be host to an "existing" residential structure (permitted or otherwise)
  - "existing" shall mean an occupied residential structure located on the parcel as of 12/31/2016
  - If not already permitted, residence must become permitted via AOB / Safe Homes program
  - Only one specialty cottage permit per parcel
  - no non-resident staff for cultivation or on-site processing activities
- Limitation of no more than 2,500 ft.$^2$ mixed light cultivation or 25 plants (outdoor), per upcoming DFA license restrictions
- Must practice soil conservation
  - Pledge to reuse and amend soil already imported to site.
  - Minimize use of imported soil.
  - Bulk soil delivery prohibited.
- Mixed Light Cultivation must be supplied by grid power or 80% renewable.

Changes from existing ordinance and rationale for proposed changes: These standards encourage permitting of existing small cultivation sites associated with existing rural residential uses.

*RETIREMENT, REMEDIATION, AND RELOCATION PROGRAM*

- Continue to incentivize retirement and remediation of qualifying existing sites meeting current criteria from CMMLUO
  - site must meet definition for "existing" (pre 1/1/16)
  - must be located on lands zoned TC, FR, TPZ, U, RA, AG, or AE
  - must rely upon surface water diversion without water right or streambed alteration permit.
- Authorize relocation to sites meeting eligibility criteria for principally permitted new outdoor & mixed light cultivation, or parcels currently host to buildings and other infrastructure developed in association with past or ongoing Industrial Use(s). Prime Soils no longer required.
- relocation proposed to occur within prime soils on eligible parcels, subject to 20% limitation.
- No limit to the number of relocation sites on a parcel, if not located within prime soils. Must be sited within areas of 15% or less slopes.
  - Allow cultivation at relocation site to be up to quadruple the cultivation area of the existing site to be retired/remediated or 20,000 ft.$^2$, whichever is less.

Changes from existing ordinance and rationale for proposed changes: Continuing to limit use of prime soils while allowing relocation to non-prime lands will help reduce demand on sites with prime agricultural soils, and provide for a greater number of potential sites where relocation can occur.

**2) INDOOR CULTIVATION**

- Carry forward existing provisions from CMMLUO:
  - no consideration given for "existing" indoor sites
  - must comply with energy performance standards

  *Agricultural Zones*
  - Zonings - RA (on parcels 5 acres or larger), AG, and AE
    - Maximum of 5,000 square feet within existing non-residential structure

  *Commercial, Industrial, and Unclassified Zones*
  - Zonings - C-2, C-3, MB, ML, U (where developed with an existing Industrial or Commercial Use)
  - Add CH zone to list of eligible zonings.
    - Cultivation of up to 5,000 ft.$^2$ allowed with a Zoning Clearance Certificate
  - Cultivation of up to 10,000 ft.$^2$ allowed with a Conditional Use Permit

Changes from existing ordinance and rationale for proposed changes: Adding the CH zone will expand the potential sites for cannabis activities.

## 3) NURSERIES & COMMUNITY PROPAGATION CENTERS

- Wholesale Nurseries principally permitted use in select Commercial and Industrial Zoning Districts
  - Zonings: C-2, C-3, ML, MH, U (where developed with an existing industrial or commercial use)
  - Wholesale Nurseries allowed with a discretionary permit in CH and MB Zoning Districts
- Wholesale nurseries shall be a principally permitted use in
  - Zoning Districts: AE, AG, FR, and U (accompanied by agricultural land use designation)
    - must be located on a publicly maintained road
    - subject to compliance with standards for commercial parking and accessibility
- must comply with energy performance standards
- Community Propagation Centers may also be permitted wherever Nurseries are authorized
  - Propagation Centers allow cannabis farmers, operating within regional cultivation areas and communities without grid-supplied electricity, to maintain mother plants in a vegetative state at a nearby facility, during periods where these plants need not be located at the cultivation site.

Changes from existing ordinance and rationale for proposed changes: Community propagation centers allow cannabis farmers, operating within regional cultivation areas and communities without grid-supplied electricity, to maintain mother plants in a non-flowering condition during periods where plants need not be located at the cultivation site. In areas with no grid or renewable power source, they may help reduce the amount of generator use, number of generators, and potential noise impacts from generators, while also helping operators achieve compliance with state and local restrictions on cultivation-related generator use.

***Energy Performance Standards for Indoor Cultivation, Nurseries & Community Propagation Centers***

- Power for Cultivation and Propagation activities must be supplied through one of the following:
  - on-grid power from 100% renewable source
    - PG&E Solar Choice, RCEA Community Choice Aggregation, etc.
  - on-grid power with purchase of carbon offset from an accredited source
  - on-site zero net energy provided by a renewable source

Changes from existing ordinance and rationale for proposed changes: Continuing to require that Indoor cultivation utilize energy from renewable sources or purchase carbon offsets for non-renewable energy use is consistent with existing regulations. Applying these performance standards to nursery and community propagation areas is a logical next step, and aligns with restrictions on non-renewable energy use emerging at the state level.

## 4) CANNATOURISM

- Allow tours and visits by the general public as a principally permitted use at all locations zoned for Commercial or Industrial uses;
- In agricultural and resource production zoning districts, only permit if access to site is exclusively provided by publicly maintained roads
- Cannabis farmstays shall be permitted within existing residences with a discretionary permit
- All Cannatourism subject to performance standards to insure harmony with neighboring land uses
- Allow tour operators, with a business license, and commitment to only travel to sites permitted to host visits by from the general public.

Changes from existing ordinance and rationale for proposed changes: Adding standards for the cannatourism industry will encourage development of that industry in a way that minimizes adverse impacts on humans and the environment.

## 5) MICROBUSINESSES

- Add definition of cannabis "microbusiness", which includes an allowance for cultivation, manufacturing, wholesale distribution, and sales at the same establishment, consistent with state licensing provisions.
- Allow with a Special permit in CH, C-2, C-3, MB, ML, U (where planned for commercial, industrial or mixed industrial/commercial/residential use), as well as Agricultural and Resource Production Zoning Districts
  - access to site must be provided exclusively by paved, publicly maintained roads.
  - if access to site requires use of private road(s), a Conditional Use Permit is required.
- All Microbusiness sites subject to the following performance standards:
  - Grid power or 100% on-site renewable
  - 600 foot setback required from sensitive receptors: residences, churches, schools
    - Setback of not less than 300 feet with a Conditional Use Permit
  - Sites must have adequate parking , comply with accessibility requirements (ADA)
  - Hours of Operation 8am - 6pm
  - On-site parking requirements for employees and guests:
    - 1 parking space per 200 sq. ft. of public accessible areas; and
    - 1 parking space for every 2 employees
- Allow on-site consumption, subject to conformance with operational measures and performance standards to insure consumers are not a threat to themselves or others, including but not limited operation of a motor vehicle while impaired.

Changes from existing ordinance and rationale for proposed changes: Adding standards for microbusinesses will encourage development of this new type of license offered by the state in a way that minimizes adverse impacts on humans and the environment.

## 6) PERMITTING PENALTIES FOR VIOLATIONS

- Initiation or expansion of cannabis activities prior to permit issuance shall be grounds for disqualification of the application with no refund of submitted fees.

Changes from existing ordinance and rationale for proposed changes: Identifying the penalties for non-compliance may help achieve higher rates of compliance with the ordinance.

**From:** lauracooskey@frontiernet.net
**To:** Lazar, Steve
**Subject:** Comments on Draft EIR re: Cannabis Cultivation
**Date:** Tuesday, May 9, 2017 4:44:42 PM

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Dear Mr. Steven Lazar,

I am writing with input regarding the proposed “Amendments to Humboldt County Code Regulating Commercial Cannabis Activities.”

As a private citizen owning and residing on land zoned Agricultural along the Mattole River between Honeydew and Petrolia, I have strong feelings about the proliferation of industrial-style, large-scale cannabis growing operations in rural Southern Humboldt. Whatever worries about impacts on wildlife and ecosystems might be addressed in an Environmental Impact Report also includes questions about effects on the social animal—us humans; therefore I will characterize my comments as concerns about both environmental and social issues.

Please let me first briefly list my grievances; I am sure you have heard these concerns before, so I will not delve too deeply into why they are important:

* Water use and overuse, taxing the rivers, creeks, fish populations, wildlife in general, and also stressing neighborhood residents’ domestic water supplies
* The noise from greenhouse generators and fans, which are annoying, disruptive, and constant (around the calendar and the clock)
* Light pollution and disruption of diurnal rhythms. Not only a problem for wildlife and for my personal enjoyment of dark, quiet country nights, but a blight on the illusion of wilderness and pristine beauty that has drawn many tourists and comfortable retirees here (read: an important and enduring part of Humboldt County’s economy)
* Pollution from runoff of heavy fertilizers, from diesel-powered generators, and from excessive vehicles involved in the industry; trash piles from the all-too-common tons of plastic which are rarely recycled
* Increase in human population as Green Rushers hurry to take advantage of this grey area in legality and enforcement, and between state legality and national unlawfulness. The additional people bring with them more motor vehicles, which make the roads in rural Humboldt County more dangerous, and also cause unforeseen damage to both County- and privately-maintained roads, a result particularly of huge trailer trucks loaded with bagged soil and other pot-growing supplies. This new population of growers brings with it many other threats to quiet, peaceful enjoyment of the country life, particularly irresponsible dog ownership and a plethora of feral pit bulls throughout Southern Humboldt
* Because of the aforementioned grey areas in legality and enforcement, weed is still worth a lot of money—if not so much here, definitely if smuggled into states where it is still illegal. Therefore, large growing operations are magnets for crime; crime makes for paranoia, and the proliferation of guns, unskilled security forces, mean dogs, etc., hired to protect the crops is almost as frightening as the chance that strangers will randomly break into any resident’s home or outbuildings, believing we are all rich

players in the cannabis game.

As language in the Notice of Preparation for the EIR mentions this land use as “agricultural,” and as I have no problem with agriculture on lands zoned as such, I want to point out that the problem with the type of growing going on here is hardly what can be described as “agriculture.” Perhaps we need a new definition of “agricultural” and of “industrial,” because each designation suggests a certain kind of enterprise with its own set of circumstances needing regulation.

If we were to amend the definitions of these terms so that any endeavor requiring machinery (fans and generators), causing light and noise disruption, and done inside a plastic greenhouse with controlled lighting and trucked-in soil became known as “industrial use,” and was assigned to (usually urban) areas zoned for factories, warehouses, and other heavy-duty, noisy, dangerous industries, I would have little problem with large-scale greenhouse cannabis growing. I think the point of zoning is to place like with like; big trucks full of manufactured growing mediums, carting plastic bags in to huge indoor expanses of automated growing scenes, dependent upon fossil-fuel-powered generators and air-replacement systems, and using quantities of water that should be metered and charged for... this is something to be placed in an industrial zone, NOT in the rural, backwoods areas of Humboldt County, a place where many people choose to live for its natural peace and quiet.

Should anyone want to grow cannabis like any other agricultural product in the hills of Humboldt, that would be much more appropriate. Green plants growing in the natural earth, fed by natural sunshine, and maturing by cues from natural length of day, would indeed look and sound like “agriculture” to me—quiet, green, and in a locally-sustained cycle of fertilization, growth, and composting. Even large grows expanding over hillsides, replacing native vegetation, would not bother me the way this non-agricultural manufacture does. Part of country living is farming!

There would still be concerns about crime, water use, increased human populations, etc., but given the fact that the reduced yields from natural farming would prevent the rudely ambitious from even trying—they would go to the industrial production zones for concentrated harvests—I do not think those effects would be anywhere near as destructive as what is already going on here in the hills now, and what is being contemplated as an even more expanded “diversity of areas” for such intensive manufacture.

Meantime, I look back with nostalgia to the days when families grew literally a handful of plants in little clearings in the forest. People claim they couldn’t get by on the tiny economic benefit that would bring them today... and I wish them luck in the urban factories of high and constant production, where the zoning of “Industrial” fits their activities.

Thank you for your time.

Sincerely,

Laura Cooskey Walker

lauracooskey@frontiernet.net
707-601-7300
544 Green Fir Rd., Petrolia, CA, 95558

**From:** jim cotton
**To:** Lazar, Steve
**Subject:** EIR comments on cannabis
**Date:** Monday, May 8, 2017 5:21:04 PM

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Dear Sir,

My concern with the new cannabis regulations is that the issue of smell is not properly addressed along with the strain on groundwater supply.

I have been a property owner in Humboldt for almost 30 years and recently have had to sell our tree farm because my wife and I could not stand the cannabis smell coming from our neighbors parcel. The cannabis grow consisted of four large greenhouses and during the period when the plants were maturing the smell was disabling for my wife who has chronic allergies. We were force to sell our parcel as the smell was unrelenting and pervasive at a distance of 200 yards.

We relocated just outside of Arcata, two parcel from Sun Valley Floral Farms who have recently applied for a commercial cannabis permit of four contiguous parcels totaling 160 acres. These parcels are 245 feet from our property line and I fear a grow of this size will undoubtedly have strong smells associated. We grow most of our food using our well as a water source and I fear the impact on ground water this scale of cannabis growing will have, the groundwater level currently drops around 8 feet during the irrigation season.

There are numerous counties in Washington, Colorado and Oregon where the smell is one of the leading complaints. Please address these issues as we really don't want to have to move for the second time because of smell.

Sincerely
James Cotton
1971 27th St.
Arcata

State of California • Natural Resources Agency
Edmund G. Brown Jr., *Governor*

DEPARTMENT OF PARKS AND RECREATION
PO Box 2006
Eureka, CA 95502-2006
Lisa Ann L. Mangat*, Director*

May 9, 2017

Steve Lazar
Humboldt County
3015 H Street
Eureka, CA 95501

**Subject:** Notice of Preparation (NOP) for the Amendments to Humboldt County Code Regulating Commercial Cannabis Activities draft Environmental Impact Report (EIR), **SCH # 2017042022**

Dear Mr. Lazar,

Thank you for the opportunity to review this NOP and provide suggestions on the content of the forthcoming EIR (SCH # 2017042022) that will propose amendments to Humboldt County Code regulating commercial cannabis activities, simply referred to herein as the Project.

California State Park's North Coast Redwoods District (NCRD) is responsible for the management of 76,700 acres of land within the boundaries of Humboldt County that include 15 of the District's 23 park units. Among them are Prairie Creek Redwoods State Park, a designated World Heritage Site and International Biosphere Preserve, and Humboldt Redwoods State Park, home to the largest contiguous old growth coast redwood forest in the world. When reviewing projects that may affect state park resources we base our review on the Department's Mission Statement, which states:

*"The mission of the California Department of Parks and Recreation is to provide for the health, inspiration, and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation."*

The main concern for NCRD regarding the proposed amendment changes will be the proximity of permitted cannabis activities to park boundaries because of possible impacts on resources and management activities. Impacts from the Project may include impaired aesthetics and biological resources, degraded water quality and quantity, exotic invasive species introduction, slope instability, erosion and sediment transport, and demand on fuel and/or hazard tree management.

To reduce some of these potential impacts, NCRD would like to recommend inclusion of a Special Treatment Area (STA), similar to those required for Timber Harvest Plans under the Forest Practice Rules, where additional protection measures may be warranted for permitted activities at locations adjacent to state park boundaries. A minimum buffer distance of 200 feet, up to 300 feet where old growth is present, where vegetation clearance is prohibited or reduced could mitigate several possible impacts

including aesthetics, wind thrown trees, and affects to the microclimate of the park. Similarly, no structures should be permitted within 300 feet of a park boundary to eliminate the threat from hazard trees in the park that could fall on infrastructure of an adjacent parcel. If a fire fuel management zone if needed, it should be considered outside the STA buffer. The STA should also prohibit the use of pesticides, rodenticides, and fertilizers within 100 feet of park boundaries. Presumably, there would be similar restrictions elsewhere to protect water quality by prohibiting the use of these chemicals near streams and waterways. NCRD would also like to recommend conditions placed on soil quality and amendment application rates within a STA to reduce the potential to import exotic invasive species and help preserve water quality.

The NOP states that new cultivation or expansion of existing cultivation sites will be permitted to locations meeting specific criteria including among them having natural slopes at 15 percent or less. NCRD agrees in most cases a gentle slope will reduce the risk of erosion and sediment transport, however it is possible that a gentle slope could be the surface unit of a landslide, which could be exacerbated by the conversion of cover type. In addition to the 15 percent or less slope criteria, qualified professionals should evaluate cultivation sites pending permit to identify and characterize possible landslides and determine if conversion is appropriate. This process would reduce the negative impacts from slope failure within watersheds adjacent to and/or upstream from park units.

The NOP also states that Ordinance Nos. 2544 and 2559 prohibit new or expanded cannabis cultivation on lands zoned timberland (TPZ) and limits permits to the area of existing cultivation as of January 1, 2016. If an existing cultivation site zoned TPZ has already been converted, NCRD suggests a process for retrospective review of the environmental conditions prior to issuance of a grandfathered permit. If there are existing impacts from past or ongoing cannabis cultivations sites, adjacent park resources should be considered in consultation with NCRD before issuing such a permit.

We appreciate the opportunity to provide recommendations on the Project prior to and/or during your preparation of an EIR. NCRD is dedicated to working with Humboldt County and other Responsible agencies throughout the environmental review process to ensure the protection of our extraordinary public resources. Please contact the District Environmental Coordinator, Shannon Dempsey, at 707-445-5344, if you have any questions.

Sincerely,

Victor Bjelajac
District Superintendent
North Coast Redwoods District

ec: Steve Lazar
Humboldt County
slazar@co.humboldt.ca.us

State Clearinghouse
Governor's Office of Planning and Research
state.clearinghouse@opr.ca.gov

Shannon Dempsey, District Environmental Coordinator
North Coast Redwoods District
Shannon.dempsey@parks.ca.gov

Marisa St John
22522 State Hwy 299
Blue Lake, CA 95525
May 9, 2017

Mr. Steven Lazar
Humboldt County Planning & Building Department
3015 H Street
Eureka, CA 95501
slazar@co.humboldt.ca.us

RE: Notice of Preparation of a Draft Environmental Impact Report (EIR) for Amendments to Humboldt County Code Regulating Commercial Cannabis Activities

Dear Mr. Lazar.

Here are my suggestions and comments regarding the preparation of a draft Commercial Cannabis EIR

1. "Vineyard model" is not enough – vineyards neither stink, nor have crops that are intoxicants while on the vine, nor generally negatively impact nearby vineyards. Marijuana production should not be allowed near any vineyards or other agricultural production where the smell from marijuana cultivation and production could waft over other parcels and potentially taint the non-marijuana products (commercial and non-commercial).
2. Notices of Nuisance should be abated prior to the approval of any commercial marijuana cultivation or production. The County has a long-term reputation of not abating problems (after formal complaints and personal observations). There is a high probability that this has caused the extraordinary increase of illegal marijuana growth and production, grading, building, etc. over the last 15 years. Not matter how many policies, procedures, standards, and that the County currently has in place or plans to implement, they do not mitigate any issues if the County fails to follow them and abate problems. The 2016 Loma Fire in Santa Clara, California is an example of where a county didn't abate a problem and thousands of acres of forest and multiple houses were destroyed.
3. Commercial Marijuana growth and production should not be extended to non-prime agriculture land use / zoning, high fire, or anywhere that takes Federal, State, and County services more than 15 minutes to respond to. Humboldt County has many prairies and oak woodlands that are already endangered and have been / will be destroyed. The Draft GPU EIR says that land use changes will increase prime agricultural acreage. There are some problems that can no longer be seen (like water take from Redwood Creek or dumping into Redwood Creek) due to the time that it takes to get there.
4. Grows should require light-blocking covers for lighted greenhouses to prevent light pollution and its negative effects on wildlife and other peoples' ability to enjoy their properties.
5. According the to the GPU Draft EIR "traffic on unpaved roads is estimated to contribute as much as 60% of Humboldt County's PM10, the only criteria air pollutant for which the County exceeds established standards. (See Section 3.12 Air Quality)" Areas, such as Titlow Hill where most properties are under cultivation / production, would be severely impacted by the increased traffic (even more so since the Land Use is changing and already illegally subdivided parcels could be subdivided again).

6. Dogs that are not in their owners' control chase cars and bicycles, trespass, harass/maim/kill livestock and wildlife. Dogs and cats are also not licensed, spayed/neutered and frequently abandoned when the cultivation season ends. It is not always possible to identify who the owners are, so it is also not possible to have the problems abated.

The County should make sure that non-marijuana cultivators' / producers' properties rights are upheld and do not put the burden (time and money) on them to seek compliance (especially those that live here year-round).

Sincerely,
Marisa St John

RECEIVED
MAY - 8 2017
Humboldt County
Planning Division

Steve Lazar
Humboldt County
Planning and Building Dept.
3015 H Street
Eureka, CA95501

Dear Mr. Lazar,
This letter regards the revision of the code sections that refer to the permitting process for marijuana cultivation and processing.

The codes should require that residents of properties that will be affected by the presence of a processing facility or "grow" be notified **in writing** about the proposed business and they should be able to influence the decisions that are made by the county.

There should be public meetings/hearings to address issues and concerns about such businesses. Additionally, cities should be notified about permits that will affect their border areas or "spheres of influence" before any permits are issued.

These types of facilities should not be near schools or residential areas or within smelling distance of them.

There should be attention to the impact these facilities would have on air quality, traffic, water quality and water use and if there is a negative impact, they should not be permitted.

Additionally, the county should, retroactively, follow these same requirements for the permits that have already been granted.

It is obvious that in the rush to issue permits to growers, the rights and concerns for the rest of the community of this county have been overlooked.

Laurel Farnham
3576 Nelson Lane
Fortuna, CA 95540

Re: the Humboldt County "Cannabis "Code Sections
and Revisions

May 5, 2017

RECEIVED
MAY - 8 2017
Humboldt County
Planning Division

Mr Lazar,
My objections to the Code sections include:

1)The overall sense of the Code sections that everyone in this County enthusiastically supports this local legalization of a controversial industry. There are many dangerous side effects to this policy that the County is fully aware of and many of these are not addressed in these Code sections.
2)The fact that applications for industrial size projects **within** the spheres of influence of incorporated cities were accepted without input from the cities effected. Supposedly, these applications met the criteria of the Cannabis Code sections. If they did, then the Code as written shows a callus and perhaps illegal disregard for the rights of Cities in the State of California. If this consequence was unintended, then this is a serious oversight by the County that should be corrected immediately. If these infringements on the rights of cities were intentional, then the County has violated the cooperative relationship that should exist between county and city governments.
3) The fact that the County's own general plan designates some of these adjacent county administered properties as zoned Residential (as shown by the Nelson Lane area in Fortuna). The County has been granting subdivisions in that area for years with the obvious intent to develop the area with Residential uses in mind. City services are already provided and annexation is just a matter of time. This area does not seem to fit the concept of rural, agricultural property, with no close neighbors, that the Code sections envision. Yet it technically fit the administrative definitions of acceptable property for a 50,000 $ft^2$ commercial marijuana growing and processing plant right in the middle of an existing residential area.
4) The city of Fortuna, with its ordinances prohibiting these cannabis operations, should be respected.

**When the Code is amended:**

It should include language giving the incorporated cities of the County the right to deny permitted projects that they object to that are within their Spheres of Influence.

Residential areas of the County should not be forced to have neighboring industrial marijuana operations that will obviously decrease their property values and deteriorate their quality of life.

Paul Farnham

PAUL FARNHAM
3571 NELSON LANE
FORTUNA, CA 95540

Betsy Filippini

496-0110

RECEIVED
MAY - 8 2017
Humboldt County
Building Division

# Victoria Ranch Estates

Hydesville CA

May 9, 2017

Board of Supervisors
Humboldt County Courthouse
825 5th St.
Eureka CA, 95501

RE: Proposed changes to the Humboldt County Cannabis Regulations and EIR Scoping Process

Dear Members of the Board,

Thank you for providing the members of the Victoria Ranch Estates HOA the opportunity to comment on the scope and content of the Environmental Impact Report (EIR) and the proposed amendments to the Humboldt County Cannabis Regulations. It is our understanding that as a part of this revision, the Board will consider "special requirements/limitations for projects located within spheres of influence or community areas". The Victoria Ranch Estates HOA is requesting that the Board consider designating this subdivision as a "Q" zone that would prohibit the commercial cultivation of cannabis due to the severe restriction of water in our area and the inadequacy of our private rural road system (that currently does not meet the qualifications of the state and county fire safe standards for second residences).

**Development of a "Q" zone option for the commercial cultivation of cannabis for neighborhoods with underlying environmental restrictions that cannot be mitigated**

When the Victoria Ranch subdivision was approved in 1993, water availability was a concern for the future development of all 17 parcels contained within the subdivision. Because of this, Covenants, Conditions and Restrictions (CC& Rs) and a Declaration of Water System Rights were developed to address and limit the use of water. In particular, the CC&Rs and Water System Rights do not allow for use of water for commercial or industrial agriculture, only for normal household use and vegetable gardens (see attached CC&Rs and Declaration of Water System Rights, Page 2). At the time of the subdivision, it was estimated that normal household use of water would top out at 500 gallons a day (this was the guiding allotment contained in the Declaration of Water System Rights). If you account for full buildout of the subdivision utilizing this usage, normal water withdrawals would be around 8500 gallons per day. Currently three properties in this subdivision are in the process of obtaining commercial grow permits (two have applied; and one is currently operating without a permit. The HOA has retained legal counsel and is proceeding with civil action for compliance with the CC&Rs). If these grows were allowed, the use of water would triple to over 26,000 gallons of water per day (assuming a 9 square foot plant area and 4-5 gallons per plant water usage for the proposed size of these grows).

This area cannot sustain this type of water usage! We have very limited water during the summer months. Since 2000, at least 8 landowners in the subdivision have experienced system failure and have abandoned wells and drilled new ones. Other than watering livestock, there is no other agricultural use demanding water resources in our neighborhood. Many residents actually store water for their

vegetable gardens and no one waters their lawn in the summer. Even with all these precautions, we still run out of water in years of low precipitation.

Although this subdivision is within the Hydesville Community Services District boundary, we are not served by the district and do not see this changing in the foreseeable future. The District has informed our membership that it would be cost prohibitive to extend services to our area, and frankly, they also do not have water for additional users.

The impact to our **private road** is also of great concern. As you know, commercial cannabis grows greatly increase the traffic and use of road systems, hauling soil and other materials in and then product out. The cannabis grows currently operating here illegally usually have 5-6 vehicles in and out of the subdivision daily. Our road system currently does not meet fire safe standards for second residences (parcel sizes here range from 5- 35 acres). A guest house requires obtaining a Conditional Use Permit with an environmental review! A road system that cannot support second residences or guest houses because it does not meet state and county fire safe standards surely cannot meet the increased traffic caused by the commercial cultivation of cannabis.

Finally, our subdivision borders Wolverton Gulch, a coho/steelhead bearing stream that surely has direct hydrological connections to the local groundwater system. Additional users in this area would negatively impact aquatic resources if not conditioned appropriately. Under the scoping requirements for the Draft EIR, it would behoove the County to determine areas that are not suitable for the commercial cultivation of cannabis because of neighborhood water limitations. It should not be permitted to have an intensive commercial agriculture operation move into this residential neighborhood and jeopardize the water resources of existing homes and negatively impact the local fisheries. That is why we believe it is appropriate to allow the Victoria Ranch Estates Subdivision the ability to opt out as a cannabis cultivation zone either through a "Q" Zone or a similar zoning mechanism, until adequate water is available.

We commend and thank you and County staff on the work done so far on the Marijuana Ordinance. It is a difficult regulatory issue to undertake as this land use has for many years been conducted in the shadows, without any legal sideboards to guide or regulate it. As you know, however, not all neighborhoods are suitable for this type of use and so we therefore request to be removed from the permittable areas through the development of a "Q" zone option because all impacts cannot be mitigated.

Sincerely,

David and Elizabeth Filippini
3324 Quiggle Ct.
Hydesville, CA 95547

David and Debbe Fonsen
2900 Rockspring Rd.
Hydesville, CA 95547

Dennis and Tami Fitze
PO Box 699
Hydesville, CA 95547

Robert and Sarah Frawley
PO Box 1032
Fortuna, CA 95540

Martha Spencer and Eric Nelson
3115 Rockspring Road
Hydesville CA 95547

Leon and Glenda Noel
3070 Quiggle Ct.
Hydesville CA 95547

Morris and Nikki Moxon
2790 Rock Spring Road
Hydesville CA 95547

Brad and Kristy Seher
3375 Rockspring Road
Hydesville CA 95547

Robin Poffenberger and Rob Ridenour
3005 Rock Spring Road
Hydesville CA 95547

Carl and Renee Schoenhofer
2915 Rockspring Road
Hydesville, CA 95547

1993-13930-9

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CAROLYN CRNICH, RECORDER
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VICTORIA RANCH ESTATES
c/o Coldwell Banker, Cutten Realty
Mock Wahlund
2120 Campton Rd., Suite C
Eureka, CA 95501

77972-PN

Clerk: VS Total: 29.00
May 25, 1993 at 10:00

# DECLARATION OF WATER SYSTEM RIGHTS

This Declaration of Water System Rights is made this 3rd day of December, 1992, by RONNIE N. CLIFFORD, BARBARA J. CLIFFORD, STEPHEN D. QUIGGLE, ALICE C. QUIGGLE, JOHN C. GOBLE, ROBIN R. GOBLE and ROBERT F. KELLY, hereinafter referred to as "Declarants."

WHEREAS, Declarants are the owners of the Victoria Ranch Estates Subdivision consisting of a certain tract of land in the unincorporated area of the County of Humboldt, State of California, as depicted in the Map recorded in Book 20, Pages 82 through 86, inclusive, Humboldt County Records; and

WHEREAS, Declarants intend to sell the seventeen (17) lots which comprise the above-described property and said seventeen (17) lots will share five (5) wells for domestic water.

NOW, THEREFORE, Declarants set forth hereinafter the rights and responsibilities of each and every person or entity who now or in the future owns any of the lots with respect to the use, enjoyment and maintenance of the subdivision's water system.

1. **Well Allocation.** The five (5) wells in the subdivision shall be shared as follows:

a) Well Number 1 (located on or near Lot 2)--
Lots 1, 2, 3 and 5;

b) Well Number 2 (located on or near Lot 7)--
Lots 4, 7, 8 and 16;

c) Well Number 3 (located on or near Lot 10)--
Lots 6, 9 and 10;

d) Well Number 4 (located on or near Lot 13)--
Lots 11, 12, 13 and 14; and

e) Well Number 5 (located on or near Lot 17)--
Lots 15 and 17.

ability to authorize all necessary repairs and maintenance to promote and insure the proper use and condition of the system. For the purposes of electing a trustee or trustees, expending funds in excess of One Hundred Dollars ($100.00), or altering the system, a meeting of the affected lot owners shall first be held. A majority of the users (one user per lot) of a well shall constitute a quorum.

4. **Individual Maintenance.** All home service lines or residence supply lines (running from the well or from any common storage tank or facility) together with all pumps, electricity, meters, valves and other accessories necessary to furnish and measure the amount of water used by each individual user shall be furnished and maintained at the sole expense of each individual user.

5. **Access Rights.** All lot owners, their successors in interest and their authorized agents shall have the right to reasonable access over necessary portions of the other lots sharing a well for the purpose of installing, repairing, replacing and maintaining the water system, the well and related items.

6. **Transferability.** No interest in the water system is transferable or alienable by lot owners or users except as incident to the sale of a lot utilizing the water.

7. **Emergencies.** In the event of emergency, common water pipes between systems may be installed and used for the duration of the emergency, but not to exceed thirty (30) days without just cause. The cost of installation of said common water pipes shall be borne by the lot owners or users requiring emergency water services.

8. **Subject to Valid Laws.** This Declaration of Water System Rights is subject at all times to any and all valid laws, ordinances, and governmental regulations whether federal, state or county. If any part or provision of this Declaration shall be determined to be invalid under the federal, state or county laws, the remaining part of this Declaration that can be separated from the invalid, unenforceable provisions shall continue in full force and effect.

9. **Mutual Benefit.** The various restrictive measures and provisions set forth herein are declared to constitute mutual equitable covenants and servitudes for the protection and benefit of each lot in the subdivision. The failure by the Declarants, or any other person or persons entitled to do so, to enforce any measure or the provisions hereof shall not prevent enforcement thereafter, or be deemed a waiver or relinquishment of the right to do so.

10. **Purchasers Bound.** Each grantee of a deed, or other conveyance, or purchaser under a contract or agreement of purchase, accepts the same subject to all the covenants, restrictions, rights of access and agreements set forth herein and agrees to be bound by the same.

11. **Damages.** Damages for breach of the covenants, restrictions and conditions stated herein, or any of them, are hereby declared to not be

STATE OF CALIFORNIA )
) ss.
COUNTY OF Contra Costa )

On this 9 day of December, 1992, before me, the undersigned, a Notary Public in and for said State, personally appeared **STEPHEN D. QUIGGLE,**

[ ] personally known to me OR

[X] proved to me on the basis of satisfactory evidence

to be the person whose name is subscribed to this instrument (Declaration of Water System Rights) and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument, the person or the entity upon behalf of which the person acted, executed the instrument.

OFFICIAL SEAL
YVONNE COOPER
NOTARY PUBLIC - CALIFORNIA
CONTRA COSTA COUNTY
My Comm. Expires Apr. 19, 1993

Yvonne Cooper
Notary Public
Commission Expires: 4/19/93

STATE OF CALIFORNIA )
) ss.
COUNTY OF Sacramento )

On this 10th day of December, 1992, before me, the undersigned, a Notary Public in and for said State, personally appeared **ALICE C. QUIGGLE,**

[X] personally known to me OR

[ ] proved to me on the basis of satisfactory evidence

to be the person whose name is subscribed to this instrument (Declaration of Water System Rights) and acknowledged to me that she executed the same in her authorized capacity, and that by her signature on the instrument, the person or the entity upon behalf of which the person acted, executed the instrument.

GBP1 VICKI B. RUDI GBP1
COMM. #965345
NOTARY PUBLIC - CALIFORNIA
SACRAMENTO COUNTY
My Comm. Expires Apr. 27, 1996

Vicki B. Rudi
Notary Public
Commission Expires: April 27, 1996

STATE OF CALIFORNIA
COUNTY OF Sonoma

On Oct. 29 1993 before me, Bonnie Burrell, personally appeared John C. Goble, personally known to me (or proved on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed in the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

OFFICIAL SEAL
BONNIE L. BURRELL
NOTARY PUBLIC-CALIFORNIA
SONOMA COUNTY
MY COMM. EXP. MAY 2, 1994

WITNESS my hand and official seal.

Bonnie L. Burrell

Notary public in and for said State.

This document is only a general form which may be proper for use in simple transactions and in no way acts, or is intended to act, as a substitute for the advice of an attorney. The printer does not make any warranty, either express or implied, as to the legal validity of any provision or the suitability of these forms in any specific transaction.
Cowdery's Form No. 10G — ACKNOWLEDGMENT — General (Civil Code 1189(a)) (Revised 1/93)

## CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

No. 5193

State of CALIFORNIA
County of HUMBOLDT

On 10-25-93 (DATE) before me, K. ALEXANDER LEEDER (NAME, TITLE OF OFFICER - E.G., "JANE DOE, NOTARY PUBLIC"),

personally appeared JOHN M. WAHLUND (NAME(S) OF SIGNER(S)),

☑ personally known to me - OR - ☐ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

OFFICIAL NOTARY SEAL
K. ALEXANDER LEEDER
Notary Public — California
HUMBOLDT COUNTY
My Comm. Expires OCT 10,1995

WITNESS my hand and official seal.

K. Alexander Leeder

SIGNATURE OF NOTARY

**OPTIONAL SECTION**

**CAPACITY CLAIMED BY SIGNER**

Though statute does not require the Notary to fill in the data below, doing so may prove invaluable to persons relying on the document.

☐ INDIVIDUAL
☐ CORPORATE OFFICER(S)

TITLE(S)

☐ PARTNER(S) ☐ LIMITED ☐ GENERAL
☑ ATTORNEY-IN-FACT
☐ TRUSTEE(S)
☐ GUARDIAN/CONSERVATOR
☐ OTHER:

**SIGNER IS REPRESENTING:**

NAME OF PERSON(S) OR ENTITY(IES)

RONNIE N. CLIFFORD
BARBARA J. CLIFFORD

**OPTIONAL SECTION**

THIS CERTIFICATE MUST BE ATTACHED TO THE DOCUMENT DESCRIBED AT RIGHT:

Though the data requested here is not required by law, could prevent fraudulent reattachment of this form.

TITLE OR TYPE OF DOCUMENT AMENDMENT TO CC+Rs

NUMBER OF PAGES 3 DATE OF DOCUMENT 10-25-93

SIGNER(S) OTHER THAN NAMED ABOVE VRE GENERAL PARTNERS (4)

1993-32172-6

©1992 NATIONAL NOTARY ASSOCIATION • 8236 Remmet Ave., P.O. Box 7184 • Canoga Park, CA 91309-7184

# Hydesville County Water District

P.O. Box 561
Hydesville, California 95547
707-768-3000


May 5, 2017

Mr. David Fonsen

2900 Rocksprings Road.

Hydesville, CA 95547

Dear Mr. Fonsen,

Thank you for inquiring about the possibility of receiving HCWD water service at your home site (address shown above). Since your home is located in the Victoria Estates subdivision HCWD water service is not available. The infrastructure for water delivery to you is inadequate and the deed to your property clearly states that HCWD is not available.

Sincerely

David Rodrigues

David Rodrigues

HCWD Manager

1993-13929-8

Conformed Copy

RECORDED — OFFICIAL RECORDS
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CAROLYN CRNICH, RECORDER

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HUMBOLDT LAND TITLE COMPANY

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2120 Campton Road, Suite C
Eureka, CA 95501
(707) 445-8811

Rec Fee 26.00

Clerk: VS Total: 26.00
May 25, 1993 at 10:00

77972-PN

COVENANTS, CONDITIONS AND RESTRICTIONS

All Owners of Record, Victoria Ranch Estates Subdivision, RONNIE N. CLIFFORD, BARBARA J. CLIFFORD, STEPHEN D. QUIGGLE, ALICE C. QUIGGLE, JOHN C. GOBLE, ROBIN R. GOBLE, and ROBERT F. KELLY (hereinafter referred to collectively as the "Declarants") are the owners of a certain tract of land located near the town of Hydesville in the County of Humboldt, State of California, described as follows:

Lots 1 through 17, inclusive, of Tract No. 383, as per Map recorded in Book 20 of Maps, Pages 82 through 86, inclusive, Humboldt County Records.

The Declarants hereby certify and declare that they have established, and do hereby establish the following covenants, conditions and restrictions (the "CC&Rs"), subject to which all lots and portions of the Subdivision and of each and every lot and portion thereof. The CC&Rs, and each of them, are for the benefit of the Subdivision and of each and every lot and portion thereof. The CC&Rs are established for the purpose of enhancing and protecting the value, desirability and attractiveness of the Subdivision and of each and every lot and portion thereof. The CC&Rs, and each of them shall run with the real property located within the Subdivsion, and shall be binding upon and inure to the benefit of each owner of such real property, or any part thereof, and each successor in interest of such owner.

no storage of junk or second hand dismantled goods or automobiles or machinery of any kind outside of a building.

(d) No signs whatsoever, except reasonable signs as per California Civil Code Sections 712 and 713, including but without limitation commercial, political and similar signs, visible from any other lot in the Subdivision or from the Adjacent Property shall be erected or maintained upon any lot, except (1) residential identification signs of a combined total face area of three square feet or less, (2) during the time of construction of any improvement on such lot, job identification signs with a maximum face area of six square feet per sign and of the type usually employed by contractors, and (3) no more than one "for sale" sign having a maximum face area of three square feet.

(e) No house or trailer or similar vehicle, and no tent, shack, garage, barn or other outbuilding shall be used at any time as a residence. This paragraph shall not apply to the existing trailer house on Lot 17.

(f) Construction of improvements on the lot shall be subject to such erosion measures as may be required by the County of Humboldt, as a condition of County approval of the Development Plan of the Subdivision.

## IV. PURCHASERS BOUND

Each grantee of a conveyance or purchaser under a contract or agreement of purchase, accepts the same subject to all the covenants, restrictions, easements and agreements set forth herein and agrees to be bound by the same.

## V. DAMAGES

Damages for breach of the CC&Rs stated herein, or any of them, are hereby declared not to be adequate compensation, but such breach and/or the continuation thereof may be enjoined or abated by appropriate proceedings by the Declarants, or any and all owner(s) of any and all other lot(s) in the Subdivision. The prevailing party in any proceeding to enforce these CC&Rs shall be entitled to recover the costs of enforcement, including reasonable attorney's fees.

## VI. AMENDMENTS

These covenants, restrictions, easements and agreements may be amended by a two-thirds (2/3) majority vote of all parcels affected hereby. For purposes of voting, each parcel has one (1) vote. If an amendment is proposed, all owners of record of all parcels shall be notified in writing of the proposed amendment. Said notice shall be at least one (1)

STATE OF CALIFORNIA)
COUNTY OF ~~HUMBOLDT~~ SAN FRANCISCO) ss.

On April 28, 1992 before me, Mona M. TIECHE, personally appeared STEPHEN D QUIGGLE personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies) and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature Mona M Tieche
Notary Public

OFFICIAL SEAL
MONA M. TIECHE
NOTARY PUBLIC—CALIFORNIA
NOTARY BOND FILED IN
MARIN COUNTY
My Commission Expires June 29, 1992

---

STATE OF CALIFORNIA)
COUNTY OF HUMBOLDT) ss.

On April 29 1992 before me, Susanne V. Cook, personally appeared Alice C. Quiggle personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies) and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature Susanne V. Cook
Notary Public

OFFICIAL SEAL
SUSANNE V. COOK
NOTARY PUBLIC - CALIFORNIA
HUMBOLDT COUNTY
My commission expires Sept. 3, 1995

---

STATE OF CALIFORNIA)
COUNTY OF ~~HUMBOLDT~~ Sonoma) ss.

On May 4, 1992 before me, Barbara L. Staggs, personally appeared John Clyde Goble ~~personally known to me~~ (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies) and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature Barbara L Staggs
Notary Public

OFFICIAL SEAL
BARBARA L STAGGS
NOTARY PUBLIC - CALIFORNIA
SONOMA COUNTY
My comm. expires MAY 25, 1995

SPACE BELOW FOR RECORDER'S USE ONLY

RECORDING REQUESTED BY:

VICTORIA RANCH ESTATES SUBDIVISION
Owners of Record

WHEN RECORDED, MAIL TO:

COLDWELL BANKER CUTTEN REALTY
2120 Campton Road, Suite C
Campton Plaza
Eureka, CA 95503
(707) 445-8811

**1993-32172-6**

RECORDED - OFFICIAL RECORDS
HUMBOLDT COUNTY, CALIFORNIA
**CAROLYN CRNICH**, RECORDER
Recorded by Humboldt Land Title Company

Rec Fee 20.00

Clerk: VS Total: 20.00
Nov 12, 1993 at 14:12

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AMENDMENT TO CONVENANTS, CONDITIONS AND RESTRICTIONS

All Owners of Record, Victoria Ranch Estates Subdivision, RONNIE N. CLIFFORD, BARBARA J. CLIFFORD, STEPHEN D. QUIGGLE, ALICE C. QUIGGLE, JOHN C. GOBLE, ROBIN R. GOBLE, and ROBERT F. KELLY (hereinafter referred to collectively as the "Declarants") are the owners of a certain tract of land located near the town of Hydesville in the County of Humboldt, State of California, described as follows:

Lots 1 through 17, inclusive, of Tract No. 383, as per Map recorded in Book 20 of Maps, Pages 82 through 86, inclusive, Humboldt County Records.

The Declarants hereby certify and declare that they have established, and do hereby establish the following covenants, conditions and restrictions (the "CC&Rs"), subject to which all lots and portions of the Subdivision and of each and every lot and portion thereof. The CC&Rs, and each of them, are for the benefit of the Subdivision and of each and every

/////continued

VIII. OTHER CONDITIONS

As part of these covenants, conditions and restrictions, recorded May 25, 1993 as Instrument No. 1993-13929-8 of Official Records of Humboldt County, Declarants do hereby grant to the Owner of Lot 15, commonly known as 3320 Rock Spring Road, Hydesville/AP: 204-141-27 Humboldt County, permission to maintain a private entrance and gate, located at the northeast corner (point) of Parcel "E" at its juncture with the cul-de-sac at Rock Spring Road.

1993-32172-6

IN WITNESS WHEREOF, the Declarants have subscribed their hands and seal to include Section VIII on this 25th day of October, 1993.

Ronnie N. Clifford
RONNIE N. CLIFFORD

BY: John M Wahlund
JOHN M. WAHLUND,
His Attorney-In-Fact

Barbara J Clifford
BARBARA J. CLIFFORD

BY: John M Wahlund
JOHN M. WAHLUND,
Her Attorney-In-Fact

JOHN C. GOBLE

Robin R. Goble
ROBIN R. GOBLE

Robert F. Kelly
ROBERT F. KELLY

Stephen D. Quiggle
STEPHEN D. QUIGGLE

Alice C. Quiggle
ALICE C. QUIGGLE

:v62

**Elizabeth Filippini**
**3324 Quiggle Court**
**Hydesville, CA 95547**

To the Humboldt County Planning Department and the Humboldt County Board of Supervisors:

The corner of Rockspring Road and Quiggle Court in Hydesville has historically been a bus stop for Hydesville Elementary School. In three years, we will have a new kindergartner in our neighborhood utilizing the Rockspring/Quiggle bus stop. The principal of Hydesville Elementary School, Lisa Jager, has confirmed that the bus will come to the Rockspring/Quiggle stop as needed.

Thank you for your attention to this matter.

Sincerely,

Elizabeth Filippini

**Debbe Fonsen**
**2900 Rockspring Road**
**Hydesville, CA 95547**
May 5, 2017

To Whom It May Concern:

I am the primary caregiver for my three-year old grandson. In September of 2019, he will be a new kindergartner at Hydesville Elementary School. He will regularly be riding the school bus using the Rockspring Road and Quiggle Court bus stop.

Thank you for your attention to this matter.

Sincerely,

Debbe Fonsen

Debbe Fonsen

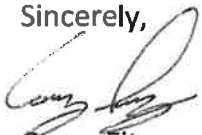
**Corey Fitze**
**10 Kelly Lane**
**Ferndale, CA 95536**

To Whom It May Concern:

I grew up on Quiggle Ct. in Hydesville. From September 1996 until June 2005, I rode the school bus regularly to and from Hydesville Elementary School. The school bus stop was always the corner of Rockspring Road and Quiggle Court. Several of my friends and my brother rode the bus also. This included Callie and Joe Forrest, Jake and Cole Moxon, and my brother Adam Fitze.

Thank you for your attention to this matter.

Sincerely,



Corey Fitze

# FRIENDS OF THE EEL RIVER

*Working for the recovery of our Wild & Scenic River, its fisheries and communities.*

Tuesday, May 9, 2017

Humboldt County Planning & Building Department
Attn: Steve Lazar, Senior Planner
3015 H Street
Eureka, CA 95501-4484

via email to slazar@co.humboldt.ca.us

**Re: Scoping Comments – Environmental Impact Report for *Amendments to Humboldt County Code Regulating Commercial Cannabis Activities***

Dear Mr. Lazar,

The following comments are offered on behalf of the board, staff, and supporters of Friends of the Eel River. FOER advocates for the protection and restoration of our Wild and Scenic Eel River, with a focus on the fisheries that are the keystone of ecosystem health in our watershed. FOER has been working for years to identify effective solutions to the environmental impacts resulting from the ongoing explosion in commercial marijuana cultivation, until now nominally for medicinal purposes, in the Eel River watershed.

The South Fork Eel River has been the focus of decades of restoration work undertaken at significant public expense. Though already listed under §303(d) of the Clean Water Act for both high temperatures and excess sediment, tributaries of the South Fork Eel River vital to the recovery of coho have been subject to significant diversions even in historic drought, and to unplanned development that often results in significant and continuing increases in fish-killing sediment loads throughout the watershed.

As a consequence, key South Fork tributaries have suffered the loss of several year-classes of coho salmon in tributaries critical to the hope of population recovery as diversions to marijuana gardens continued despite severe drought.[1] Because Eel River coho and steelhead, as well as chinook salmon, are listed under the federal Endangered Species Act as a Threatened species, not only does each fish killed by dewatered or dirt-filled streams, and every instance in which salmon and steelhead reproduction is impaired, amount to a 'take' under the Endangered Species Act, these losses threaten to so severely undermine

[1] See, e.g., *State Water Board Comments on Sproul Creek Inspection* at http://www.willitsnews.com/article/NR/20150220/NEWS/150229984

**ARCATA OFFICE**
Scott Greacen, Executive Director • scott@eelriver.org
PO Box 4945, Arcata, CA 95518 • 707.822.3342

**PETALUMA OFFICE**
David Keller, Bay Area Director • dkeller@eelriver.org
1327 I Street, Petaluma, CA 94952 • 707.763.9336

the viability of coho in the region as to constitute 'jeopardy' – the highest level of threat under the ESA. It is long past time that the County initiated consultation with the National Marine Fisheries Service (NMFS) to insure that jeopardy will be avoided and take limited to the extent possible by Humboldt County's commercial cannabis industry.

We have repeatedly written to the County on these matters, expressing variations on a theme we have repeated many times in our public statements: the existing marijuana industry in Humboldt County is causing significant, often effectively irreversible, impacts to key public trust resources in the Eel River watershed, especially to the fisheries of coho salmon and steelhead. The rapid rate of increase in the number of new growing operations, and their average size and concomitant impacts, generally shorthanded as the Green Rush, is making these problems worse, and more intractable, every year.

While we strongly support legalization and regulation as the best hope of addressing these impacts, we must continue to insist that regulation which fails to effectively address the overwhelmingly larger black market industry must fail to protect the public trust resources, including clean water and functional fish habitat, for which the county and the state are jointly responsible.

We outlined the nature of the impacts that most concern us in our comments to the Planning Commission in November of 2015:

> *There can be no question that substantial evidence exists of the significant environmental harms which have accompanied the dramatic expansion of commercial marijuana cultivation, for allegedly medical purposes, in Humboldt County since Proposition 215 provided a defense to growers charged under state law.*
>
> *These harms include a dramatic increase in sediment loads in creeks which had previously been laboriously restored after decades of abusive industrial logging; streams diminished, and even entirely dewatered, by unpermitted water diversions; and by loss of their habitat, runs of native fish lost to extinction, with potentially catastrophic implications for the recovery of coho salmon and steelhead in the Eel River watershed, among others. Poorly designed and maintained roads, stream crossings, grading sites, and ponds have, are now, and will continue to discharge sediment into tributaries of the Eel River, all of which are already listed by the State Water Board under §303(d) of the Clean Water Act as "impaired" by both sediment and high water temperature.*
>
> *As well, there is substantial evidence that the use of pesticides and fungicides by commercial marijuana growers has led to the release into the ecosystem of highly toxic substances, including poisons deadly to fish at very low levels, as well as bioaccumulating rodenticides that are causing predator mortality to increase rapidly, and that workers and consumers are being exposed to potentially harmful levels of quite dangerous materials. (Note, for example, that the EPA is now moving to ban the*

*use of chlorpyrifos, a neurotoxin used to kill mites.[2] Chlorpyrifos is one many pesticides and fungicides recently detected in tests of concentrated cannabis product sold in Oregon.[3]) Even the unregulated use of less toxic materials, such as fertilizers, has led to aquatic impacts that could readily prove cumulatively significant under close scrutiny.*

*These harms rise in some instances to violations not only of the county's existing ordinances, but of state and federal law, including the Clean Water Act, the Porter-Cologne Water Quality Control Act and the associated Basin Plan; the California Fish and Game Code; and the California and federal Endangered Species Act. Such impacts are without question potentially significant under the California Environmental Quality Act (CEQA).*

Unfortunately, the County has responded to our concerns with a combination of empty assurances that state agencies will surely get right on dealing with those issues and its own "regulatory framework," which appears devised more to insure that the County collects revenue and growers who want to be legal get a permit than to actually limit the watershed impacts of Humboldt's incredibly lucrative pot industry.

Our fundamental problem appears to be that the County has no guiding vision, no articulable principles which control the construction of our new legal weed industry – other than the industry's familiar maxim: whatever you can get away with. The question is, does this mean we are looking to state agencies to set the limits? To what the land, and the rivers, and the fish, can bear? Or to the limits of the law? One fact seems indisputable: the black market industry is driving a real estate boom, which is making many of the county's elected leaders and their supporters quite happy.

The County seems more than reluctant to take any steps that will deter the golden goose from laying all she wants. But the golden goose is crapping in the creek. The real estate boom is just another face of the cumulative effects which are now, today, killing Humboldt's real treasure – its watersheds, fisheries, wildlife and wild lands.

Thus far, the County's strategy for dealing with the black market industry has been almost entirely carrots – attempts to guide behavior by incentives and rewards – combined with only a few flimsy enforcement sticks, whose lack of use only reinforces their impotence. We deserve better leadership than this. The basic questions about Humboldt's commercial cannabis industry are land use issues. It is the County's responsibility to regulate land use, even if some of its officials would prefer not to.

In our November 2015 comments to the Humboldt County Planning Commission, we noted that:

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[2] See *EPA Proposes to Revoke Chlorpyrifos Food Residue Tolerances* at http://www2.epa.gov/pesticides/epa-proposes-revoke-chlorpyrifos-food-residue-tolerances

[3] See *A tainted high - Lax state rules, inconsistent lab practices and inaccurate test results put pesticide-laced pot on dispensary shelves* at http://www.oregonlive.com/marijuana-legalization/pesticides/

> *The county must provide clear means to distinguish the minority of such operations which may be permitted under an effective system of regulation from the majority which should never have been established.* ***Given the county's long history of feckless land-use regulation, it is particularly important that the county establish straightforward enforcement mechanisms, including the use of common-law nuisance, that can and will be used to shut down thousands of large, damaging operations which cannot be, should not be, or simply are not properly permitted.***
>
> (emphasis added)

The County has not only failed to establish such mechanisms; it has continued to tolerate (and even to create incentives which invite) the establishment of additional new, large, commercial marijuana growing operations across the county, leading inevitably to new and increased environmental impacts.

> *Optimally, the county would systematically use the contemplated ordinance to shut down and force remediation of the vast majority of the class of large operations that generate disproportionate harms. Such enforcement would itself constitute perhaps the most effective potential mitigation of the environmental impacts generated by the commercial marijuana industry.*
>
> *But there can be no question that significant environmental harms could – and should – have been prevented if only the county had seen fit to enforce its existing regulations as the Green Rush swept over the Humboldt hills.*

In our comments to the Board in December of 2015, we wrote that:

> *That those operations decline to obtain permits does not allow the County to ignore their impacts in order to determine that operations it does permit will incur no significant watershed impacts. We note here that the County's practice of ignoring violations of its grading ordinance may have some relationship to the significant sediment inputs that are causing continuing harms to the Eel River and its fisheries.*

The environmental and social consequences of a legal pot industry operating at a given scale in Humboldt cannot be meaningfully evaluated in isolation from the key questions about the (still booming, bigger this year than ever) illegal industry, which operates on the same landscape, takes water from the same sources, and puts the same dirt in the same fish habitat as the legal industry – except all at a much larger scale.

Thresholds matter. If the impacts of the illegal industry can be, and are, sharply reduced – as a whole, or at least at a watershed scale, not merely on the level of this or that specific operation – then there may be 'room' for the impacts of an enlarged legal industry. But if the illegal industry remains unrestrained, its impacts remain unbearably large, and the addition of even limited impacts, however legal they may be on a per-operation basis, must be considered at least potentially intolerable for watersheds already over thresholds.

For the purposes of CEQA analysis, the county has claimed the benefit of moving operations into legal status, claiming that results in net lower impacts. But if the whole industry is

actually evaluated as it actually exists, it is far from clear that the effect of the County's strategy is actually net lower impacts on the watersheds and fisheries which are the ultimate object of FOER's concerns. **By bringing many of the lower impact operations into legal status, but failing to effectively restrain the still-growing black market sector, which almost certainly generate higher impacts both on average and by their much greater number, we may not have actually reduced the amount of dirt reaching spawning grounds, or increased the number and improved the condition of the young fish that make it out of our watersheds every year.** Those are the numbers that matter to us – not how many permits the County has issued, or the fees it has collected.

Evidence of ongoing harms is abundant and readily available to the County.

The most important index of cumulative effects – the increase in the number and size of commercial cannabis operations -- is plainly visible over time on Google Earth and other remote sensing data, now widely available. The Department of Fish and Wildlife, FOER and our partners, the Regional Board, and even the Lost Coast Outpost have all conducted similar evaluations of Google Earth and other remote sensing data and reached broadly congruent conclusions about the scale and rate of growth of the marijuana industry in the county.

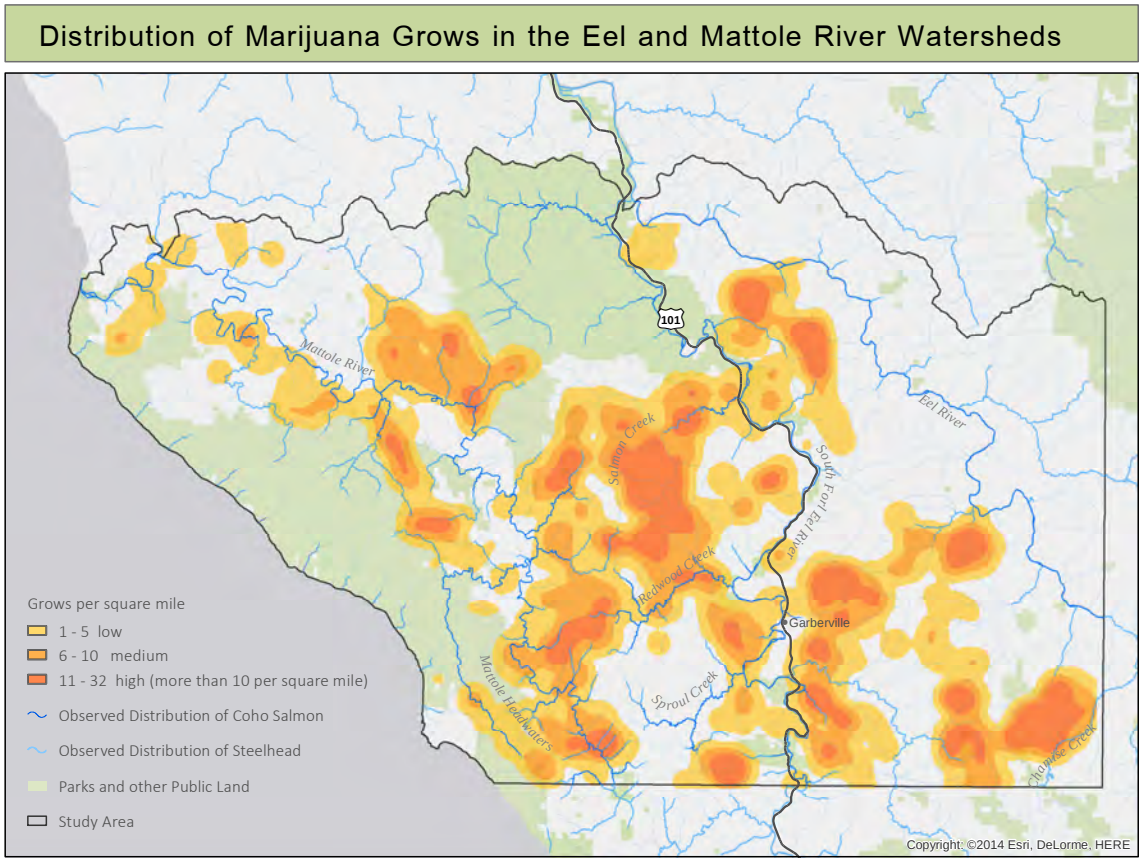
We must note that all these studies show the Butsic study dramatically underestimates the number of operations in the county. This is because that study chose to randomly sample watersheds to examine. Such a technique is useful and appropriate where impacts can be assumed to be evenly distributed. However, it is very clear that the marijuana industry is not randomly distributed in Humboldt County. Two of the watersheds Butsic et al did not examine – Redwood Creek and Salmon Creek – have long had some of the highest concentrations of operations found in the county. (See Fig 1 below.)

Thus, Butsic's estimates are not likely to prove useful guides for policy makers. The county should assemble all of the information and analysis available and reach its own conclusions. We note that the Assessor's office has had remarkable success in identifying structures on Humboldt County parcels when other parts of the county have been unable to do so. Maybe they can help.

In addition, the County should be considering what part Humboldt will play in California's legal marketplace. The California Growers Association has estimated that the state will need 1100 acres of legal pot production to meet the new recreational demand.[4] Assume they're off by a lot, and that 2000 acres will actually be needed. How many acres has Humboldt County already got in the permitting pipeline? 500? Can Humboldt reasonably expect to have fully a quarter of the whole state's production in the future? Or are we planning to permit most of the estimated 15,000 outdoor operations in the County? To what market will they be selling? How are they going to compete with places that don't need to truck in their soil?

[4] "Allen said the industry estimates 1,100 acres of marijuana farms will be needed to meet the state demand." See *The push to legalize pot for all has deeply divided the medical marijuana community,* http://www.latimes.com/politics/la-pol-ca-proposition-64-recreational-pot-opponents-20161004-snap-story.html

**Figure 1. Concentrations of cultivation sites in Eel and Mattole Watersheds in Coho Critical Habitat. 2014 data.**




We have repeatedly noted the critical importance of understanding, and addressing, the impacts of the commercial cannabis industry as cumulative impacts. From our November 2015 comments to the Planning Commission:

> *However, while controls must be implemented at the level of the individual operation,* ***it is not sufficient merely to insure that no single operation has significant impacts.*** *To insure the cumulative impacts of all permitted operations do not rise to the level of significant impacts, the county must consider how the impacts of similarly situated permitted operations will affect the environmental values at risk, at the scales appropriate to the resources at risk (e.g. at the subwatershed level for imperiled fish runs), given the number and scale of operations contemplated for permitting, and given proposed restrictions to the extent they are certain of enforcement.*
>
> *All of these different kinds of growers are selling primarily to the black market, and the black market remains the critical driver of land and water abuse by the commercial marijuana industry. While Humboldt County cannot by itself do away with the black*

*market, it can and should build regulations that recognize the threat that continued black market operations pose to its environment, public health, and safety. A regulatory scheme that would allow most current large-scale grows to continue under a pretense of permitting will only fail to protect public health, safety, and the environment less catastrophically than today's entire absence of regulation.*

*Under these circumstances, where the County is aware of the significant impacts of the illegal industry, and declines to take even modest steps to prevent those impacts, but instead sets up a parallel, regulated legal industry – but neither accounts for nor attempts to regulate those who don't choose to seek permits – a strong argument could be made that the County must not only analyze and disclose the cumulative impacts of the industry as a whole under CEQA, but most also consult with the National Marine Fisheries Service pursuant to the requirements of the federal Endangered Species Act, and seek incidental take coverage for the entire commercial cannabis industry that is normally required where listed species will be subject to harms that cannot be prevented.*

In its EIR, the County must disclose and analyze not only the current condition of Humboldt's watersheds, fisheries, and related public trust resources, but the trends in each of the relevant metrics, and what must be done to achieve thresholds necessary for watershed and fishery recovery, at a subwatershed level.

We have emphasized the need for an enforcement program with the scope, authority, and resources necessary to rein in the Green Rush activities which are driving increased and more severe watershed impacts.

***The … MND fails to adequately assess not only the current level of impacts, but even more critically the devastating trend line of increasing impacts****. If the status quo of rapid growth continues, significant impacts to watershed and fisheries are certain to continue as well. The continuing, rapid expansion in the number and size of pot farms, and the geographic expansion of high-intensity cultivation areas, are at this point clear trends.*

*If adequate regulations controlling the activities generating these impacts are not established and effectively implemented, these serious, significant, and cumulative harms are certain to continue, and likely to worsen. Put another way, if the county adopts a regulatory scheme that allows the continued expansion of both individual operations and the industry overall, and/or fails to effectively enforce the rules once adopted, these significant environmental harms will continue, and will likely continue to get worse.* ***Both clear, adequate rules and effective enforcement are necessary to prevent significant impacts in the near future.***

Unfortunately, we have seen neither clear, adequate rules, nor effective enforcement. It is thus unsurprising that we are continuing to see significant impacts from the ongoing increase in the number and size of commercial-scale marijuana growing operations across the County. In the pending EIR, the County should outline the scope and scale of enforcement measures reasonably necessary to reduce the watershed impacts of the

marijuana industry to a less than significant level. It should outline at least some ways in which such measures could be made relatively certain of accomplishment. It must provide at least some estimates of the cost, and probable benefits, of such enforcement measures. The County should be able to describe in at least outline form the resources necessary to, for example:

a) provide enough code enforcement officers to inspect every permitted operation at least once a year;
b) serve nuisance notices on a substantial fraction (say a quarter) of the existing non-permitted operations every year;
c) enforce Humboldt County's grading ordinance.

Unless and until it does so, we will continue to assume that the County's representations regarding effective enforcement are just hollow talk.

We have outlined in some detail tools available to the County which might prove more effective in addressing unpermitted/ illegal/ black market weed operations. The County conspicuously failed even to address these suggestions, which we reiterate:

***Consequences of Violations***

***Ineligibility***

*Persons found to have violated the county's ordinance should not be eligible for a permit for a period of at least five years. Similarly, parcels where violations of the county's ordinance have occurred should not be eligible for future permits for a period of at least five years.*

***Fines***

*The county has the ordinary power to punish violations of its ordinance by fines. Given that the county needs to secure funding to support a dramatically increased oversight and enforcement program, and that deterring abusive operations will both support the establishment of a high standard for Humboldt County's products and significantly reduce environmental impacts, FOER encourages the county to consider a schedule of fines that would support the proposed regulatory framework. We would respectfully suggest that the county consider establishing fines for unpermitted cultivation that reflect the scale of the operation in question. Fines should, of course, run against the parcel where the violation took place.*

*Operations of less than 2000 ft2 which do not involve other violations of law or environmental harm should be subject to a fine of up to $10,000 for failing to obtain a county permit. Operations from 2000-5000 ft2 should be subject, however, to fines of up to $250,000; those smaller than 10,000 ft2 should be subject to fines of $500,000; and larger operations should be subject to fines of at least $1 million. Such fines would provide the county a powerful incentive to stay on top of the large, unpermitted operations that need the most attention, and would give growers who are not*

*interested in following the county's requirements an immediate incentive to relocate their operations outside the county's borders.*

***One permit per natural person per parcel.***

*The county should issue permits to cultivate marijuana only to natural persons who are residents of Humboldt County – not to corporations or other entities. Permits should be limited to one per person, and to one per parcel. The permittee should generally be expected to be present at the permitted operation.*

***Disincentive for land splits.***

*If a parcel with a permitted operation is divided, by any legal means, the resulting parcels should only be eligible for permits that are less than or equal to the amount of production that would have been allowed on the original parcel under its permit, for a period of at least five years.*

***Continued compliance with all other permit terms to maintain county permits.***

*We assume the intent of the ordinance is to require not just compliance at permitting, but continued compliance over time, with all requirements that may be imposed by any state agency with appropriate jurisdiction. The ordinance should explicitly condition permits on such continued compliance with all legal requirements.*

***County may reduce sizes for any reason, may also increase if watershed conditions improve, continue on trend toward recovery***

*It is difficult to overemphasize the importance of the Department of Fish and Wildlife's suggestion that many watersheds, particularly in the South Fork Eel River basin, are already subject to greater impacts than their biological systems can sustain without suffering the loss of critical functions, degrading public trust values, and even losing imperiled species like coho salmon. It is particularly in these watersheds that key impacts must be reduced as quickly as possible, and effective mitigations undertaken. FOER is gravely concerned that a regulatory framework that proposes to issue permits to the vast majority of currently existing operations will necessarily be incapable of accomplishing such a reduction in impacts.*

*FOER strongly supports, and greatly appreciates, the county explicitly stating what must be true under California law: that it retains the power to reduce the size of cultivation permits where the impacts on watersheds require a reduction in impacts. It would be even better for the county to make it clear that cultivation permits issued under the contemplated ordinance do not constitute any form of property right or entitlement, and are subject to reduction if the people, through their county government, decide that's warranted.*

***Association with Trespass Grows and other heinous activities should be a permit violation.***

*Permits should be made subject to revocation if, in the judgment of inspecting staff, it is clear that a permitted operation is linked to a trespass grow, to production of methamphetamine, or to trafficking in Schedule 1 narcotics other than marijuana.*

We would further suggest that the EIR consider additional regulatory improvements, including:

a) Unnanounced inspections for all commercial permit holders;

b) Emphasizing enforcement measures to shut down unpermitted operations which frustrate the purpose of existing regulations and impair watersheds:

   a. large operations;
   b. key fish watersheds;
   c. multiple operations associated with same persons;
   d. absentee landowners.

In our December 2015 comments to the Board of Supervisors on the drastically altered draft ordinance submitted by the Planning Commission, we noted three areas where, in FOER's view, the Board needed most to revise the draft. Unfortunately, the Board chose to ignore our advice here as well. We urge the County to reconsider, to adopt reasonable limits, and to construct effective enforcement mechanisms in its revision of its regulations.

We sought, and still seek:

• ***(a) Meaningful cap on overall number of permits.*** *FOER has proposed a limit of 1500 permits for the first few years, pending completion of full environmental review. Effectively administering a program of that scale should present more than sufficient challenge as the county begins to regulate its cannabis industry.*

The Board flatly refused to consider capping the number of permits, and instead has announced its intention to offer an apparently unlimited number of additional permits before we even know how it will regulate the estimated 2700 permit applications now before the county in some form. We at FOER still think 2700 is probably too much, but let's at least stop there until the County figures out what industry we actually want to have in 5-10 years.

• ***Reasonable scales.*** *We thought the staff draft made a lot of sense. The 3000 square foot grows advocated by HUMMAP seem workable with proper oversight as an appropriate scale for ordinary commercial cultivation. 10,000 square foot megagrows and even larger operations should be very limited in number, subject to exacting review, and restricted to sites most appropriate for large commercial operations.*

Needless to say, the County listened to the big growers, who wanted big grows. And now that's the standard. Bigger grows are providing bigger incentives to establish more black market operations. That's leading to more impacts.

> • ***Real enforcement tools and resources.*** *FOER has proposed that the County adopt a schedule of meaningful fines for operators who choose to continue to grow large amounts of cannabis without a permit. We have also proposed that the county provide that significant violations of permit terms will result not only in the loss of the permit, but in both the permittee and the property becoming ineligible for a future permit.*

As noted above, we still think the County should seriously consider such disincentives and related policies that might be effective in limiting the watershed harms created by the Green Rush.

In our comments to the Board in December of 2015, we noted that "the County's continuing failure to address its black market cannabis industry may result in additional liability for the environmental harms caused by its cannabis industry." That none of us has solutions certain to work does not relieve us of the responsibility to face the problems squarely.

Because the County has failed to date to prioritize its responsibilities to effectively regulate the industry and protect public trust resources, FOER respectfully requests the County prepare an Alternative in the pending EIR which focuses on the prevention of unnecessary watershed, fisheries, and other wildlife-related and environmental impacts. We propose the County denote this Alternative the **"Watershed and Wildlife Protection Alternative."**

This alternative should focus on reducing, and where possible, eliminating, the excessive watershed impacts of the existing marijuana industry and preventing additional or future impacts. Its central consideration should be to provide for the attainment of watershed conditions conducive to the survival and recovery of native, imperiled fisheries, as well as the management systems and enforcement tools necessary to ensure continued attainment of such conditions.

**Under this Alternative, the County should not issue additional permits for commercial cannabis cultivation** in subwatersheds which are designated as critical habitat for one or more species listed under the federal Endangered Species Act (ESA), if fisheries in that subwatershed are not showing a trend toward recovery, and if sediment and temperature levels in that subwatershed continue to be above the thresholds designated by the EPA and Regional Board for, e.g., sediment and temperature. The County should maintain a moratorium on the issuance of additional permits for commercial cannabis cultivation in such watersheds until there are no unpermitted commercial operations in the watershed, and pollutant levels are below thresholds, and fisheries are not declining.

Please note that there are a number of other environmental issues, and many social and cultural issues, on which we are not providing detailed comments. That doesn't mean they're not a problem, or that the EIR need not consider these issues. The use of pesticides remains a critical issue for workers, consumers, and others who may be exposed to these

chemicals, as well as for the harms they do to wildlife and fisheries. We strongly urge the County to take the strongest possible measures to restrict and deter the use of pesticides in cannabis cultivation beyond those outlined by the Regional Board.

The use of artificial lights is disrupting wildlife. They should be banned as a public nuisance. And despite the profitability of indoor marijuana production, there is no way to justify the carbon impacts of energy-hungry intensive lights when we are finally legalizing outdoor production. As we noted in our Planning Commission comments on *Indoor Grows and 'Mixed Light" Operations:*

> *The most credible study of indoor marijuana cultivation in California to date concluded that the amount of electricity then being used to grow indoor pot in the state was approximately equal to the total reductions in energy use achieved in the state's attempt to reduce its carbon footprint.*[5] *Given these impacts alone, it is impossible to conceive of an environmental justification for growing marijuana to harvest under artificial lights. The county should not permit indoor operations except, as noted, for closely regulated nursery operations. Those should be restricted to industrial sites serviced by the electrical grid, and required to fully offset their carbon footprints. Similarly, the county should not permit 'mixed light' operations.*

If Humboldt took its rhetoric about branding and environmental consciousness even half-seriously we'd ban indoor growing altogether, and reclaim a lot of desperately needed housing in the process. Because the climate impacts of indoor cultivation are so substantial, the County must consider a "**No Indoor Cultivation, No Artificial Lights**" alternative, particularly in its greenhouse gas analysis.

## Conclusion

The County should consider at least two additional Alternatives as outlined above.

Thank you for you patient attention to these comments, and for your diligent efforts toward the creation of a truly sustainable cannabis industry in Humboldt County.

Sincerely yours,

Scott Greacen
executive director

[5] See Evan Mills, Ph.D., *ENERGY UP IN SMOKE: THE CARBON FOOTPRINT OF INDOOR CANNABIS PRODUCTION*, Lawrence Livermore Labs April 2011

May 4, 2017

Steven Lazar
Humboldt County Building and Planning Dept.
3015 H Street
Eureka, CA 95501

Dear Mr. Lazar,

Thank you for the opportunity to respond to this NOP for a draft Cannibus EIR regarding the County's response to changes in cannibus industry. Please consider my comments that follow.

1. Protection of families is lacking. People, and families should be a top priority of an environmental impact study such as this.

2. Protection of children is lacking. In particular....those in the formative years of 6 to mid teens. These citizens are extremely important to our future viability, and quality of life.

3. I request a distance of at least two miles between city perimeter boundaries and cannibus production facilities, cropland, greenhouses. Why? To effectively limit the availability and visibility of these facilities from family residences, neighborhoods, schools, and park areas that are part of childrens' daily life and experience. What a child sees and experiences on a daily basis tends to gain in unquestioned acceptability as the norm.

4. In the unincorporated areas, please observe a minimum 1 mile distance between a home, school, church, community park, and a cannibus grow or production facility. The exception to this would be if the resident is a cannibus grower, residing in the County.

5. Cannibus facilities require heightened security. These include flood lights, security alarms (motion sensed), guard dogs, etc that are incompatible with neighborhoods and children. This is Humboldt County, not Los Angeles, where higher noise levels, security dogs, fences and light pollution are commonplace.

6. Cannibus facilities attract criminal activity, and will introduce more crime in our neighborhoods if placed adjacent to our homes, schools, and parks.

For example, bars, and adult bookstores/theaters are not located in neighborhoods, or next door to schools, parks, or homes. Even larger spheres of influence are needed for cannibus facilities because of the physical size of their operations.

Cannibus is unlike alcohol. The two substances should not be confused with respect to establishing acceptability. Food crops and vineyards (winegrapes) are not associated with the same cult-like culture that cannibus has had for the past half century. This sociological characteristic of cannibus sets it apart from alcohol or food crops. Because of this, cannibus is unique, as a crop, and should be treated as a special case, not just 'any crop'.

Thank you for considering my comments here, and I hope the committee finds them helpful as they prepare the EIR.

Sincerely,

Alan Fox
549 Maya Lane
Fortuna, CA 95540

Tuesday, May 02, 2017

Donald V. Fregeau Jr. DDS
3653 Loop Road
Fortuna, CA 95540
707-725-4176, -4419 , cell 707-498-7871 fax 707-725-3233
donaldvf@yahoo.com

This document refers to a proposed grow on Pampas Lane in Fortuna California, Humboldt County owned by Josh Clark. I understand you may not be seeking comments on specific grows, but it is the only way I know to illustrate points addressed for consideration in the general plan. Thank you for your indulgence.

In the Notice of Preparation under **PROJECT DESCRIPTION** there is the following point: "Apply special requirements/limitations for projects located within spheres of influence or community areas." Pg 6 Spheres of influence are specifically areas closely associated with cities and adjacent communities. In my opinion it seems that the area Josh has chosen fits the description of a "Community Area". The western property line is Fortuna city limits and just over the fence is a residential community of single family dwellings at the end of Gulliksen Drive. Additionally the community of homes served by Pampas Lane (where the grow is proposed) abides by a set of Covenants, Conditions & Restrictions (CC&Rs) which was designed to allow the group of owners who share the same road and property lines and to somewhat control the use, appearance and resources of the group of homes served by Pampas Lane. *Somewhat conveniently, the owner of the proposed grow says the title company never alerted him to the existence of CC&R's which may affect his plans.* I heard Mr. Clark tell the group of homeowners that if he had been alerted to the existence of a CC&R and had he seen the CC&R's he "would not have purchased the property" for his grow. He claims his attorney is looking into whether or not he will pursue a legal case against the title company. He appears to have some legal recourse available to him. We do not.

There are some issues regarding "**Aesthetics and Visual Resources'**. I prepared a visual idea of what a grow operation would look like looking northward from my site. (Picture 1) I call it '**what his million dollar grow will do to my million dollar view**.' His plans call for greenhouses 24 feet tall. I doubt this would concern most, that is, unless it was their property and their view. My children and grandchildren play on the trampoline to the right of the picture. Pg. 7

PICTURE 1

**'Air Quality"** is a definite concern for me as the winds often come from the direction of the grow (northeast). Josh admitted that the crop can be very stinky with some varieties being more obnoxious than others. He also offered he might be able to mitigate some of the odor with activated charcoal filters. If he proceeds, I hope there is some mitigation of this problem. Pg 7, 8

As it relates to **"Biological Resources",** 'installation of fencing which interferes with or obstructs movement of terrestrial species,' I am not sure if there is any concern about the deer which inhabit the hilltop. I doubt they will be able or allowed to negotiate the tall fencing which has been proposed. They have historically traveled all over the hill and beyond. Probably not much of an environmental concern up here, but their movement will be affected by the 8-10 foot fences he has begun placing. Additionally, his proposal suggests he will need around 400,000 gallons of water for each grow. My well exists a mere 200 feet from his primary well. No body up here uses 400,000 gallons. If his use depletes my water resource what am I to do? When we originally purchased the adjoining property in 1981, the seller who lived next door requested to retain riparian rights to the water resources on our property because their water well was unpredictable. We demurred and after getting an attorney involved, they relented. Don Watson of Watson Well is of the opinion that the well should be ok but Don has only lived in Humboldt County about 10 years. I am not sure his opinion is based on sound and lengthy experience. He is a good well guy so I may be wrong. Pg 9

Under **Land Use and Planning** ' Intensified commercial agricultural operations have the potential for conflicts with nearby residential uses related to noise, odors, dust, security, and traffic associated with development and operation of cannabis cultivation and other commercial activities. In addition, the proximity of some cultivation operations to existing residential uses can result in conflicts between County policies which promote agricultural uses and those designed to protect the quality of life and neighborhood character within rural lands.' Noise, odors and security are big issues for me. Commercial growing has the ability to bring large numbers of people into a small residential area. Traffic for Pampas Lane will definitely be affected and Loop Road is poor at best with several one lane areas. I am concerned about noise, odors and lights which may be proposed and the "alert dogs" Mr. Clark has alluded to.. pg 11

I am also concerned about security. There is a history of security issues surrounding and affecting grows away from inhabited areas. I believe they will only increase as growing operations move closer to inhabited areas. We live on the edge of Fortuna City Limits. The proposed grow and my property shares a Fortuna City property line. When I need police help I have been directed to call the county Sheriff and have had to wait for them to make an appearance. Sometimes they respond in a reasonable amount of time. Other times I have had them come from Garberville. My road and access to my home passes within 30 feet of the proposed grow and I am concerned bad guys will use my road to scope out the operation. Very concerned! Picture 2 is from my car on my road.

I imagine it will be on me to make sure we are protected. This has always been a quiet residential area. I fear it will change for the worse. With all the possible areas available to grow successfully, why allow a grow to exist in the middle of established residential areas? It makes no sense.

I have lived on this quiet hill for 36 years, raised a family and now have grandchildren who spend time with us and like to play around our property. I know things change but not all change is good. I told Josh how disappointed I was that he was proposing a grow in our beautiful neighborhood. When I mentioned I might need to sell, he said, "You can double the price on your property now." This is not what I want after raising my family and now grandchildren on our property. It is not about money but about the quality of life we want to continue to enjoy.

Thank you for your time and consideration.

Donald Fregeau Jr. DDS

PICTURE 1

PICTURE 2

**From:** Dr. Donald Fregeau
**To:** Lazar, Steve
**Subject:** Cannabis EIR
**Date:** Thursday, May 4, 2017 1:23:54 PM
**Attachments:** Picture2.jpg
Picture1.jpg

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Tuesday, May 02, 2017

Donald V. Fregeau Jr. DDS
3653 Loop Road
Fortuna, CA 95540
707-725-4176, -4419 , cell 707-498-7871 fax 707-725-3233
donaldvf@yahoo.com

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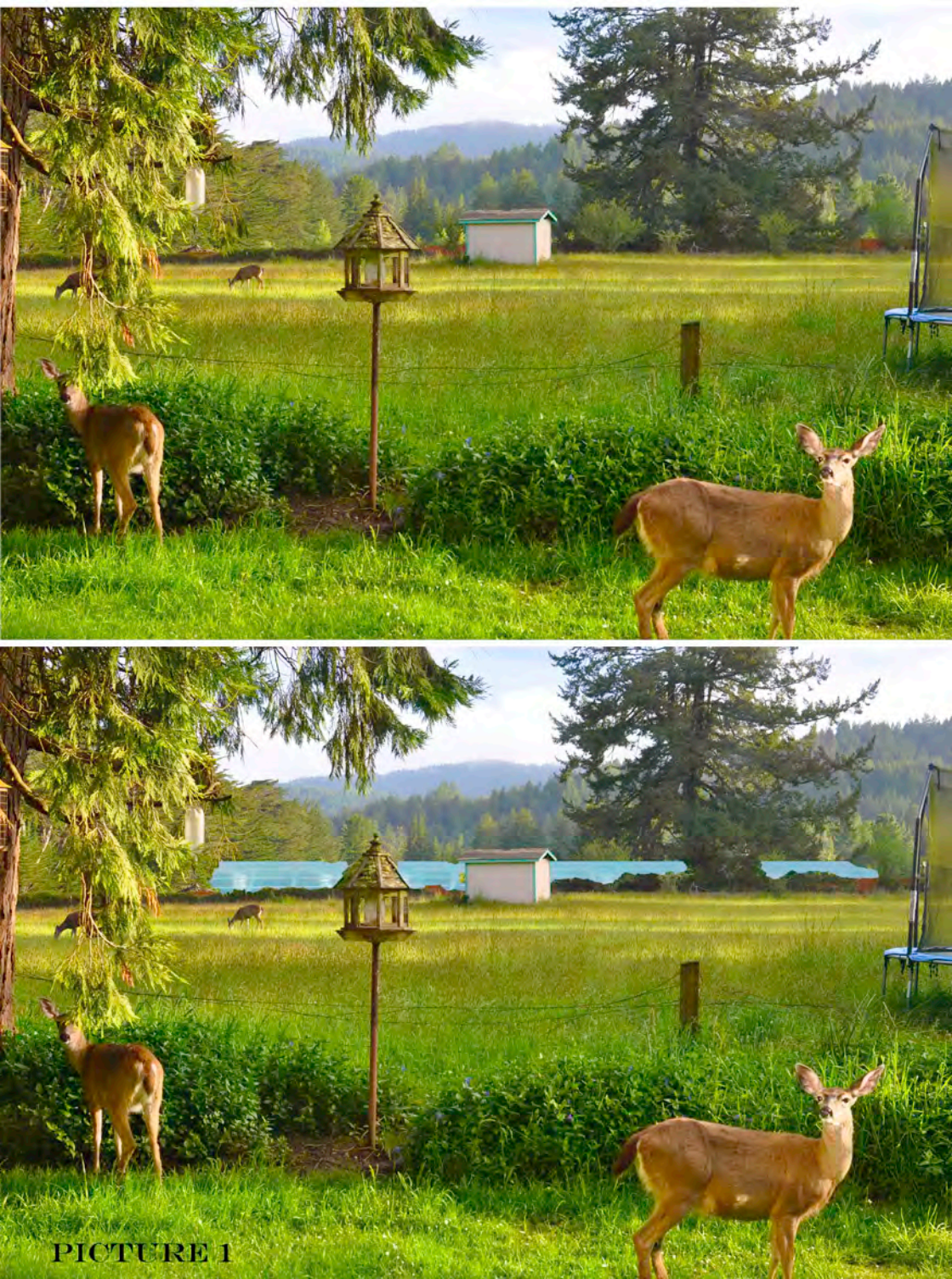
Donald Fregeau Jr. DDS

PICTURE 2



PICTURE 1

HUMBOLDT BAY MUNICIPAL WATER DISTRICT

828 SEVENTH STREET, PO BOX 95 • EUREKA, CALIFORNIA 95502-0095

OFFICE 707-443-5018 ESSEX 707-822-2918

FAX 707-443-5731 707-822-8245

EMAIL OFFICE@HBMWD.COM

Website: www.hbmwd.com

**BOARD OF DIRECTORS**
SHERI WOO, PRESIDENT
NEAL LATT, VICE-PRESIDENT
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BARBARA HECATHORN, DIRECTOR
MICHELLE FULLER, DIRECTOR

**GENERAL MANAGER**
JOHN FRIEDENBACH

May 5, 2017

Steven Lazar
Humboldt County Planning & Building Department
3015 H Street
Eureka, CA 95501
Via email: slazar@co.humboldt.ca.us

RE: Cannabis EIR: Proposed Amendments to the Humboldt County Code Regulating Cannabis Activities

Dear Mr. Lazar,

The Humboldt Bay Municipal Water District (HBMWD) appreciates the opportunity to provide input regarding environmental issues to be addressed in the EIR. We are deeply concerned about the adverse effects of cannabis cultivation in the Mad River watershed. Our interests and concerns in preparing the EIR for cannabis permits are *water quality and quantity, ensuring cumulative impacts are analyzed* and reiterating the need for *more enforcement in protecting the Mad River.*

1) Water quality for our public drinking water system which serves 88,000 people (two-thirds of Humboldt County's population).
2) Water quantity especially during the low-flow season.
3) Lawful water diversions that do not injure other water right holders, conducted pursuant to the approval and reporting process established by the State Water Resources Control Board.
4) Protection of important habitat resources in the main-stem Mad River and also the tributaries. HBMWD is the only water district in the state with an approved aquatic species Habitat Conservation Plan. Our water supply system enhances aquatic habitat in the main-stem Mad River which supports salmonids reaching important spawning habitat in the tributaries. Water quality, quantity and the general health of the watershed are critically important for the listed salmonids.

The County has already determined many potential environmental impacts that would impact HBMWD: hydrology and water quality, public services, biological resources, and utilities and service systems. We have been experiencing these impacts for years and developing the legal requirements for growing cannabis is not going to mitigate or rectify the damage that has occurred and will continue. We need more law enforcement to reduce and eliminate the ongoing environmental impacts of cannabis cultivations within the Mad River watershed. This mitigation measure should be strongly recommended in the EIR.

Since we have not yet seen the "forthcoming interim principles and guidelines for diversion and use of water for cannabis cultivation" from SWRCB, it is difficult to provide substantive comments for impacts to our water system and supply. We can only comment that we look forward to reviewing the full EIR in conjunction with the SWRCB guidelines. The tendency to separate regulations, guidelines, and jurisdictions needs to be balanced with a thorough analysis of the cumulative impacts of cannabis cultivation activity.

Any revenues generated from the changes to the County's Code regulating commercial cannabis activities should be utilized to fund regulating those activities and ensuring compliance prior to re-directing any such funds to other County programs or budget areas.

The Mad River is a crucial resource for so many Humboldt County residents, it should be a priority for enforcement to protect our water quality, quantity, and safety and health of the environment.

Respectfully,

John Friedenbach
General Manager

# *Humboldt Community Services District*

Post Office Box 158 Cutten, Ca 95534 (707) 443-4558 Fax (707) 443-0818

May 2, 2017

RECEIVED
MAY - 4 2017
Humboldt County
Planning Division

Steve Lazar
Humboldt County Building and Planning Department
3015 H Street
Eureka, CA 95501

RE: Comments on NOP regarding Cannabis EIR

Dear Mr. Lazar,

Thank you for the opportunity to comment on the Notice of Preparation for the commercial cannabis EIR. The following provides comments and concerns that the Humboldt Community Services District (District) would like to have addressed in that EIR.

As background, the District was created in 1952 to provide water and sewer service to the unincorporated areas of Eureka and today, maintains more than 160 miles of water and sewer pipelines, 10 water storage tanks and more than 40 sewer and water pumping stations over a 15 square-mile area and serving more than 22,000 Humboldt County residents.

Decades of unregulated and unenforced illegal cannabis cultivation within District boundaries have created problems with our operations. Because of this history and the proximity of the District's service area to the City of Eureka, we feel that there is a high probability there will be requests for water and/or sewer service in support of County-sanctioned indoor or outdoor cannabis grows within our District. It is our hope that the problems encountered in the past will be corrected through the mitigation measures developed as a part of this EIR process.

In general, any upgrade to the public water distribution system or sewage collection system required for any development are typically paid for by the applicant. As an example, water system facilities may need to be upsized depending on water flow demands from large cannabis grows to ensure proper flows and pressures can be provided for existing customers, future planned development per the Humboldt County General Plan, and fire protection needs of the community.

Depending on a cannabis grow site's water needs, water main upgrades or extensions may be required to ensure adequate water flows. Water booster stations or pressure reducing stations may be required or upsized to control water system pressures and to ensure that adequate pressures are continually provided. It is also possible that a public water tank upsize may be required.

The District also operates public water wells in the Humboldt Hill area. The District is concerned that if a cannabis grow site proposes to drill a water well to support their grow within the same aquifer as the District's wells, their water draw could have a negative effect on the water table and the District's ability to continue to provide the needed water volume to serve the community as it is today as well as any future planned growth in the Humboldt Hill area per the Humboldt County General Plan.

In addition, ALL public water services needed for a cannabis grow will require a privately owned and maintained water backflow prevention device.

Regarding sewer services, the District has concerns about what a cannabis grow will discharge to the public sewer system. The District has experienced sewer main blockages due to illegal cannabis grows flushing green waste down the sewer system. Clearly a plan to properly remove and dispose of green waste should be addressed in advance.

Proper storage, use of, and disposal of needed fertilizers and growing nutrients/chemicals should be addressed. This is necessary because wastewater discharges shall not exceed the Specific Pollutant Limits of the District (or any wastewater treatment plant) as there are certain chemical levels that cannot be discharged to the public sewer system. This may lead to a privately owned and maintained sewage pretreatment facility to get the discharge under the Specific Pollutant Limits for a permitted discharge to the public sewer system.

Therefore, we request that the EIR include the following regarding impact on public utilities.

- To protect public water systems, the EIR should survey all public water suppliers in Humboldt County regarding a requirement that all cannabis grows provide a privately owned and maintained water backflow prevention device and require annual testing and compliance.

- In order to protect existing and planned public water system infrastructure, the EIR should analyze potential impacts to public water suppliers and supplies and develop a mitigation measure that requires the cannabis grower to perform a Water Supply Impact Study (WSIS) to be conducted by the public water supplier and paid for by the cannabis grower. This mitigation measure should specify the information to be provided in the WSIS and include, but not limited to, flow required, water system modeling, impacts on existing water system and infrastructure upgrades necessary to accommodate the cannabis business.

- In order to protect existing and planned public sewer collection and treatment system infrastructure, the EIR should analyze potential impacts to the public sewer collection and treatment plant and develop a mitigation measure that requires the cannabis grower to perform a Sewer Collection and Treatment System Impact Study (SCTSIS) to

be conducted by the sewer system/treatment plant owner and paid for by the cannabis grower. This mitigation measure should specify the information to be provided in the SCTSIS and include, but not limited to, discharge flow rate, sewer collection system capacity modeling, sewer treatment plant capacity modeling, impacts on existing sewer system and infrastructure upgrades necessary to accommodate the cannabis business.

- In order to protect public groundwater supplies, the EIR should provide information on all aquifers within Humboldt County and provide the rationale and scientific basis for establishing a formula that can be used to calculate the maximum amount of water that can be taken from each aquifer for cannabis cultivation without interfering with existing or future public water supplies.

- In order to protect the public water supplies, wastewater treatment plan processes and the receiving waters, the EIR should provide an analysis of commonly used fertilizers, pesticides, herbicides, as well as solid waste generated by indoor and outdoor grows. Chemical analysis should include time of applications, frequency of application, discharge rate and SDS sheet for commonly use chemicals. Analysis should also include typical waste stream analysis that includes not only a robust chemical analysis, but other water quality constituents such as BOD, suspended solids and pH.

- Provide an analysis of volumetric water use by existing individual indoor and outdoor grows and develop a scientifically-defensible and scalable model that can be used by public water suppliers to determine water supply requirements for the individual grow operation.

Thank you for considering these comments and concerns. If you have any questions, please do not hesitate to contact me.

Sincerely,

David Hull
General Manager

C: Board of Directors
District Counsel

Mr. Lazzar

April 17, 2017

Humboldt County Board of Supervisors
CC: John Ford, Humboldt County Director of Planning and Building
CC: Steve Lazzar, Planner
825 H Street
Eureka, CA 95501

Dear Supervisors:
I understand that the new cannabis ordinance permitting 10,000-square-foot green houses in ag zones does not require neighbor notification. I think this is a mistake. It offers no opportunity to resolve potential conflicts beforehand. Our property is an example.

The Fieldbrook Winery has been in business for 41 years. Our tasting room is located along a paved drive on the north of our 9-acre parcel. The tasting room is used for gatherings of all kinds – fund-raisers, Wine Club events, wine tasting for guests, winemaker dinners, etc.

It has come to our attention that our neighbor, Tom Christie, has pre-permitted a greenhouse in the back SE corner of his 8-acre property -- across the drive from our tasting room. (See attached.)

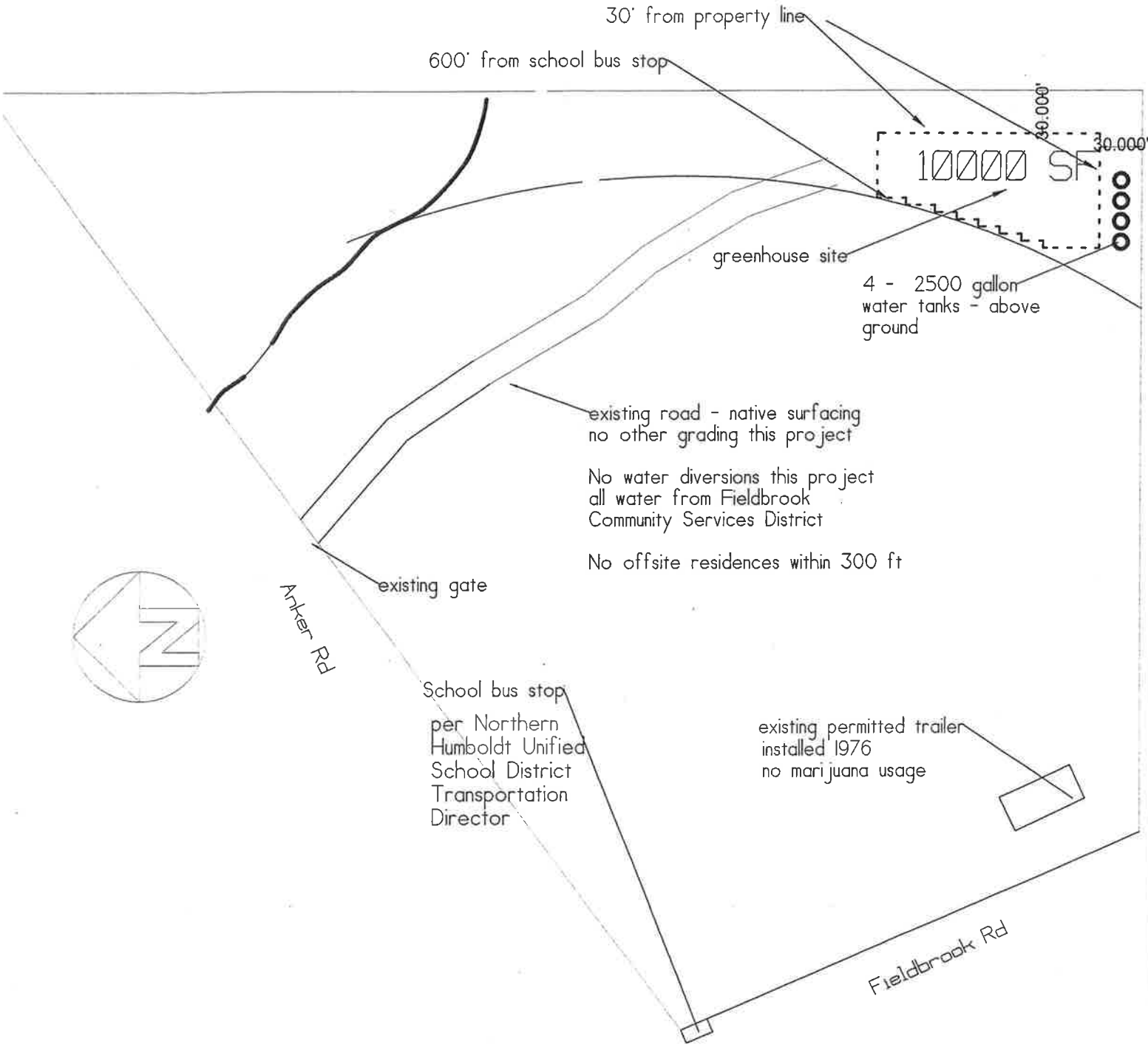
Logically, the greenhouse could be located along Anker Lane and not be in conflict with our wine-tasting operations. However, because of a bus stop at Anker and Fieldbrook and the county's 600-foot setback requirement, Christie's odd-shaped greenhouse is being proposed in extremely close proximity to our tasting room.

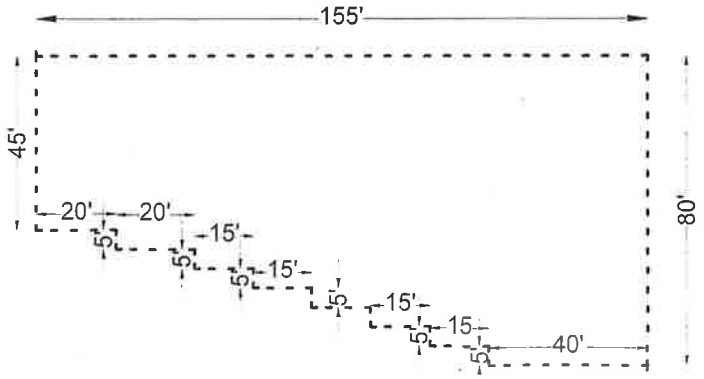
I am sure the noise and light impacts of the greenhouse operation could be mitigated so as not to conflict with our tasting room operation. However the odor that will be generated cannot co-exist with a tasting room operation.

We are not objecting to the greenhouse, just the location. How can we mitigate these impacts? Would the high school district consider moving the bus stop? We would be happy to host it along our property or perhaps the Fieldbrook School/church would be a potential location? Then Mr. Christie could locate the greenhouse on the north side of his property where an access road already exists.

Can someone respond to this correspondence? Thank you.

Judy Hodgson
4241 Fieldbrook Road
Fieldbrook, CA 95519
707-845-8129 (cell and text)




Estimated annual water use
200,000 gallons

CHAPMAN ENGINEERING
RCE # 040310
P.O. Box 2756

Marijuana production site plan AP # 512-151-78
Tom Christie
4303 Fieldbrook Rd. Fieldbrook
MARVIN CHAPMAN

**Karuk Community Health Clinic**
64236 Second Avenue
Post Office Box 316
Happy Camp, CA 96039
Phone: (530) 493-5257
Fax: (530) 493-5270

# Karuk Tribe

**Administrative Office**
Phone: (530) 493-1600 • Fax: (530) 493-5322
64236 Second Avenue • Post Office Box 1016 • Happy Camp, CA 96039

**Karuk Dental Clinic**
64236 Second Avenue
Post Office Box 1016
Happy Camp, CA 96039
Phone: (530) 493-2201
Fax: (530) 493-5364

May 2, 2017
Steven Lazar
Humboldt County Planning and Building Department
3015 H Street
Eureka CA, 95501

RECEIVED
MAY - 8 2017
Humboldt County
Planning Division

**RE: Notice of Preparation of a Draft Environmental Impact Report**
**Amendments to Humboldt County Code Regulating Commercial Cannabis Activities**

Ayukii Mr. Lazar,

Cannabis cultivation is a major political, social, economic and environmental issue in Karuk Aboriginal Territory which traverses Humboldt County. The Karuk Tribe retains sovereign authority over its Lands, Members, and Territory and is charged with protecting its eco-cultural resources. Within Karuk's Aboriginal Territory, legal and illegal cannabis growing operations are dewatering many of the streams our fisheries depend on and associated herbicides, insecticides, and rodenticides are negatively affecting our water quality and killing wildlife. At this critical regulatory point, it is imperative that environmentally protective measures are established and enforced to safeguard Karuk Aboriginal Territory and associated Tribal Cultural Resources which are exposed to increased cannabis cultivation practices. The proposed amendments to the Humboldt County Code regulating commercial cannabis activities which will broaden the existing regulations to include those activities authorized by the California Proposition 64, the Adult Use of Marijuana Act. The Karuk Tribe, having traditional and cultural affiliation with the project area request consultation pursuant to California Public Resources Code Section 21080.3.1

We fully expect and encourage the County to begin meeting with our Tribal Government and relevant staff to comply with AB 52 and the California Environmental Quality Act at the earliest possible time. These meetings can yield positive results, in particular, consideration of Tribal Cultural Values in determination of project impacts and potential mitigation measures. We have not received any such request for consultation at this time. Again, we consider this correspondence as a formal request for government to government consultation. We strongly believe the County should honor its commitment to government to government consultation and hold meetings with the Karuk Tribe to discuss this matter in detail.

The Karuk Tribe's consultation policy defines Consultation as "*the process of seeking, discussing, and seriously considering the views of the Karuk Tribe, and seeking agreement with the Karuk Tribe on the development of regulations, rules, policies, programs, projects, plans, property decisions, and activities that may affect Tribal Resources, historic properties,*

*contemporary cultural practices, and those persons under Tribal jurisdiction. This requires true government-to-government contact between the agency, government, or department and the Tribe, where high level Agency representatives meet with Tribal leaders as well as staff.*"

We appreciate the County Staffs' hard work on this complex issue. We urge an abundance of caution as the county moves into uncharted territory. The Karuk Tribe recognizes the economic opportunities afforded by changes in state law regarding cannabis cultivation; however, we must act to ensure that our eco-cultural resources and other significant tribal interests are adequately protected at the same time. We also believe it is imperative that the County meet its statutory and moral obligations to consult with the Karuk Tribe to avoid negative implications to tribal members, territories, resources and cultural properties that traverse Humboldt County.

Yootva,

Leaf Hillman
Natural Resources Director

**From:** Denise Marshall
**To:** Lazar, Steve
**Subject:** cannabis EIR
**Date:** Monday, May 8, 2017 4:21:52 PM

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Hello,

With the current issues facing Fortuna and cannabis grows, I hope that there will not be any kind of a repeal for the permit deadline. Especially in light of changes that need to occur to the current approved regulations that allows cultivation/growing near neighborhoods and community/youth space in the Eel River Valley on county lands that are too close to the people and children who do not need to be living or recreating near this kind of agriculture.

Cities with county property that is adjacent to above locations should have the ability to not allow close proximity cultivation. Restrictions should be created and these farms moved out into open spaces more conducive for agriculture.

Thank you.

Denise Marshall
Director
**McLean Foundation**
**1336 Main St**
**Fortuna, Ca**
707-725-1722
www.mcleanfoundation.org

**stewarding what we have been given...**

**PHYSICAL ADDRESS:**

1656 SUTTER ROAD
McKINLEYVILLE, CA 95519

**MAILING ADDRESS:**

P.O. BOX 2037
McKINLEYVILLE, CA 95519

McKINLEYVILLE COMMUNITY SERVICES DISTRICT

mckinleyvillecsd.com

**MAIN OFFICE:**

PHONE: (707) 839-3251
FAX: (707) 839-8456

**PARKS & RECREATION OFFICE:**

PHONE: (707) 839-9003
FAX: (707) 839-5964

May 8, 2017

Steve Lazar
Humboldt County Planning & Building Department
3015 H Street
Eureka, CA 95501

RE: MCSD Comments Regarding Amendments to Humboldt County Code Regulating Commercial Cannabis Activities, Draft Environmental Impact Report

Dear Mr. Lazar,

Thank you for including the McKinleyville Community Services District (MCSD) in the environmental review process. We have completed our review of the Draft EIR for the proposed amendments to the Humboldt County Code regulating commercial cannabis activities. This letter provides MCSD's comments and questions on the Draft EIR.

On April 26, 2017, a special meeting of the MCSD Board of Directors was convened at Azalea Hall to provide the community an opportunity to provide input as to how the updated code will pertain to MCSD, specifically the provision of Water, Wastewater, Parks and Recreation were discussed. The makeup of the audience consisted of community members, some of who are involved in the commercial cannabis industry.

During the meeting, our goal was to respond to the Notice of Preparation, in an effort to fulfill our obligation to protect the District. In discussion, staff identified a number of concerns/discussion points for the Board to consider:

- Nutrient over loads and disposal of cannabis industry related byproducts in MCSD wastewater systems
- Assessing the District's additional time/manpower/expenses
- Sewer use Ordinance, local limits, issuance of Industrial Discharge Permits and MCSD pretreatment program
- Domestic water supply cross contamination concerns
- Development of specific regulatory language for the District's protection from the above noted issues

MCSD is neither obstructionists nor proponents of cannabis activity but as a provider of state and federally regulated services, we want to protect our ability to continue to provide quality, cost effective and environmentally safe services to our rate payers in the community, while we honor both the county's policies and our obligation to State and Federal regulations. Our Board of Directors have a number of concerns and questions that we would like addressed in the Final EIR.

While MSCD will not directly regulate cannabis cultivation, we will regulate the effects of water usage in various structures and the effects on our wastewater system. As it is difficult to predict what problems may arise, MCSD recommends the county should have very clear language pertaining to special districts and/or other governmental agencies, stating that the county is not restricting their

individual authority and that all rights are reserved as necessary to regulate. If there is not specific wording to this effect, how will the county ensure that the District is protected within the proposed amendments?

The District's new treatment plant should be able to treat the higher load concentrations, resulting from commercial cannabis activities; however, those heavier discharges should be required to pay more for the treatment of the higher loads. Trying to assess changes in nutrient loads poses an interesting dilemma to the District's pretreatment standards and potential impact on facilities. What is the county going to do to require a section of the ordinance to read "must comply with District's pretreatment standards"? MCSD will not be able to find the source of heavy discharges without the county's assistance. How does the county propose assisting MCSD with identifying those dischargers, who may not necessarily be applying for permits but are still in compliance with state and county regulations?

MCSD believes that McKinleyville has the highest per capita of residential grow operations in the country. As a result, we also believe that regulating cannabis activities is essential. The District would like to know how the county will use the current ordinance to quantify the numerous personal grows that have the potential to impact our wastewater system as significantly as a limited number of commercial operations. During the Special Meeting held on April 26th, testimony was given stating that, "excess nutrients are being dumped down the drain or into back yards", how will the county utilize the new ordinance to curtail those activities? Will the county require recycling programs for waste products from all commercial and personal cannabis operations?

The industry perspective communicated during the meeting, regarding regulation, was clear and consistent. People want transparency and cooperation with local government and want a community based solution to help pollution. There will always be some sort of runoff and people are open to a plan for disposal. Perhaps a holding tank emptied at a certain time or transported to a facility. There is motivation for people with permits to do things safely and they are taking things very seriously. Costs should be balanced to reflect the true effects but still feasible for people within the industry.

What process will the county utilize to determine permitted commercial operations distances from parks and recreation facilities utilized by children?

Will the county earmark a certain percentage of revenue collected from cannabis industry to help cover District costs?

In closing MCSD reserves any and all, past, present or future rights, to protect the health, safety and welfare of District members and any valid legislative purpose. Again, thank you for the opportunity to comment on this proposal. If you have any questions or comments, feel free to contact me at (707) 839-3251.

Sincerely,

Gregory Orsini
General Manager

cc: MCSD Board of Directors

| | |
|---|---|
| **From:** | Tims outlook desktop |
| **To:** | Lazar, Steve |
| **Cc:** | Ford, John; Fennell, Estelle; Bohn, Rex; Wilson, Mike; Bass, Virginia; Sundberg, Ryan; mwheetley@ci.fortuna.ca.us; ljensen@ci.fortuna.ca.us |
| **Subject:** | NOP Comments |
| **Date:** | Monday, April 17, 2017 9:15:36 AM |

Humboldt County Planning & Building Department 4-16-17
3015 H Street
Eureka, CA 95501
ATTN: Steven Lazar

Steve: Some of these suggestions are rewrites from other ordinances and have been adopted as practical.

Ref: **NOP REVIEW**

The following suggestions are for the Notice of Preparation to the Environmental Impact Report scheduled to be implemented in 2017. The goal of these comments are to maintain or improve the character, appearance, and livability of established neighborhoods to include our surrounding environment. I'm asking that we protect this environment from incompatible uses, excessive noise, traffic, dust, light spillage, glare, odor, and similar significant nuisances that may be caused by cannabis cultivation.

By considering these recommendations we can ensure our environment is adequately protected both inside and outside any Sphere of Influence (SOI) within Humboldt County.

*** Residential setback**

On eligible parcels regardless of size, any commercial marijuana cultivation area must be setback at least a minimum of three hundred (300) feet from existing residences on adjoining parcels. This will provide a reasonable buffer zone to help eliminate nuisances.

*** Property Line Setback**

Any cannabis cultivation area must be setback a minimum of at least one hundred (100) feet from the property line.

*** Prime Ag Land**

As you had mentioned in your NOP; Expand the areas where new cultivation or expansion of existing cultivation sites will be permitted to locations with or without prime agricultural soils that are planned and zoned for agricultural use.
This would be extremely helpful where cultivators have prime soils close to adjacent neighbors but also have the opportunity to relocate. Gaining access to some of these prime ag locations may cause significant environmental harm.

*** Odor**

1. A greenhouse utilizing a mixed-light operation used for marijuana production or a building used for marijuana processing shall be equipped with an activated carbon filtration system for odor control to ensure that air leaving the building through an exhaust vent first passes through an activated carbon filter.
2. The filtration system shall consist of one or more fans and activated carbon filters. At a minimum, the fan(s) shall be sized for cubic feet per minute (CFM) equivalent to the volume of the building (length multiplied by width multiplied by height) divided by three. The filter(s) shall be rated for the applicable CFM.
3. The filtration system shall be maintained in working order and shall be in use. The filters shall be changed a minimum of once every 365 days.
4. Negative air pressure shall be maintained inside the building.
5. Doors and windows shall remain closed, except for the minimum length of time needed to allow people to ingress or egress the building.
6. The filtration system shall be designed by a mechanical engineer licensed in the State of California. The engineer shall stamp the design and certify that it complies with the amended Commercial Medical Marijuana Land Use Ordinance.
7. An alternative odor control system is permitted if the applicant submits a report by a mechanical engineer licensed in the State of California demonstrating that the alternative system will control odor as well or better than the activated carbon filtration system otherwise required.

*** Noise**

The applicant shall submit a noise study by an acoustic engineer licensed in the State of California. The study shall demonstrate that all mechanical equipment used for heating, ventilating, air conditioning, or odor control will not produce sound that, when measured at any lot line of the subject property, exceeds 50 dB(A). Any type of disruptive mechanical noise should not be audible at adjacent residences. The use of generators within a SOI should be restricted.

*** Hydrology and Water Quality**

Many groundwater wells rely on a hydrologic connection between one another and to the rivers and streams of the valleys. By allowing irrigation wells in any area cultivating close to residential wells and surface water has the "potential for interference with each another". It is important to realize when high impact activities occur, such as marijuana cultivation off a groundwater well near residential wells or a stream, we are in "uncharted waters" so to speak. We must look for ways to protect our environment and become aware of the gift we often take for granted.

*** Security Cameras**

If used, security cameras shall be directed to record only the subject property and may be directed to public rights-of-way as applicable. Cameras are not to be directed toward neighborhood residences or properties.

*** Security Lights**

If used, security lights shall not be directed toward any adjacent residences or in any manner disrupt any environmentally sensitive habitat areas.

*** Aesthetics and Property Values**

There should be a stronger emphases on aesthetics and the effect that cultivation has on adjacent property values.

Inside of all Spheres Of Influence earth tone fencing should be a requirement.

Chain link fencing shall be vinyl coated in earth tone colors to be compatible with the lot upon which it is to be built, in terms of topography, soil and existing vegetation. All chain link accessories, posts, gates and other fencing materials must be color coordinated in earth tones to match the vinyl coating.

The planting of a privacy vegetation screen is also highly recommended.

*** Neighbor Notification**

Any commercial marijuana cultivation, both inside and outside a SOI, should provide adjacent neighbors of the intent to grow as part of the application process. This will give that neighbor a chance to voice any type of concerns including right-of-way, safety, nuisance, or environmental obstacles.

Considering these proposed amendments is extremely important to the public safety, quality of life, property values of our citizens and the environment we all live in.

Tim Meade
400 Nob Hill
Fortuna, CA 95540
707-725-2011

**From:** vintage50s@suddenlink.net
**To:** Lazar, Steve
**Subject:** cannabis regulations
**Date:** Monday, May 8, 2017 3:33:25 PM

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Hi Steve --

You may remember me from the Historical Society, but I am writing to you as a homeowner. My house (366 Garland Ave) and my neighbors on 3 sides are all within the city limits of Fortuna, but the property to the west of us is county land. The owner of this property -- 3rd generation on the land -- recently had a stroke and his children have the property on the market. It is the fear of this tight-knit neighborhood that someone will buy the land -- especially the 3.5 acre hay field, in many ways the heart and soul of the neighborhood -- and put a grow operation on it.

I know that you are reviewing the County code re: cannabis grow regulations. My neighbors are talking about 300-foot setbacks and odor-control along with collector road problems (Home Avenue). However, I would like to see a broader consideration given to the negative impact that grow operations have in neighborhoods like mine.

A grow operation in this neighborhood would destroy the neighborhood, reduce property values and bring increased traffic and other problems that we currently don't have. And, I know our neighborhood is not unique. I know people in Hydesville and other parts of Fortuna that have the same concerns; people with kids in 4-H or who enjoy the rural lifestyle that is the charm of Humboldt County.

In the petition that circulated through the neighborhood they were careful to point out that growers have rights. But what about the quality of life for us non-growers?

Thanks, Steve, for working on this.

Sincerely,

Deb Meador

**From:** Lindsay Merryman
**To:** Lazar, Steve
**Subject:** Marijuana regulations
**Date:** Tuesday, May 9, 2017 12:04:37 PM

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Lindsay Merryman
P.O. Box 13
Petrolia, California 95558

Dear Mr. Lazar,

Thanks for allowing an additional day for comments. I will cut right to the chase.

I retired here with husband to enjoy the nature and solitude of this area. I have taught as a sub and part time teacher. The proposed regulations seem to have allowed limitless privileges to large scale grows---with little consideration for the effect on quality of life in a region that tourists still consider an area of great natural beauty. To enumerate a few problems:

Huge one and two trailer trucks are now with much increased frequency plying the potholed Wildcat and all the roads of the Mattole Valley, further tearing them up. As soon as HumCo fixes a pothole, these large speeding vehicles tear it up again. Plus, it is only so long before someone gets hit by them.

Unsightly fences have proliferated, making our community look like a back alley just as the crop concealed becomes legal to grow. The amount grown poisons the air, literally to the point where mostly, it smells of skunk in That Season.

Nothing you can do about the type of people who have come to make money off this new legal crop--but in their greed they have erected white grow-houses visible for miles. Grown in grow-bags, the plants once harvested are removed and the bags, skids and associated chemicals are often left behind. Who polices these distant grows to ensure that their fertilizer bags and rodent killer doesn't end up in the river and its tribs? I am secretary of the Mattole Salmon Group and our salmon monitors have found dead otters obviously poisoned by rodenticide. These chemicals also seep into the river although they are extremely difficult to ID and are not helping our native and endangered coho, chinook and steelhead, despite the fact this is a no take river.

Anything you can do to protect the watershed and its creatures, slow the traffic, constrain the number of new acres under cultivation, provide banking services for the profits, cut down the light and generator noise pollution, reduce unseemly fences, and help us deal with this lopsided new economy is appreciated. Even our Mattole Valley Community Center has had to invest in PORTA POTTIES and pay for their cleaning as those whose workers use them don't.
This cloud has a lining of toxins.

Thank you for listening.

Best, Lindsay Merryman

Please excuse any grammatical or spelling errors as my spell checker doesn't always cooperate with what I am trying to say.

**From:** Thomas Mulder
**To:** Lazar, Steve
**Subject:** EIR
**Date:** Friday, May 12, 2017 12:26:37 PM

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I can't make the meeting today at 2. It is challenging for farmers in the southern humboldt area to make a meeting in the middle of the day in Eureka. I am hopeful that there will be another meeting in the southern part of the county.

Some of my concerns are if this an "agricultural product" why are TPZ parcels that meet the same road and sloping requirements not allowed any new square footage. If TPZ can be converted under a 3 acre conversion for any other agricultural use why not for cannabis. Some TPZ parcels could easily be converted to RA if the county would prefer that zoning change . I feel parcels out of heavily populated areas with proper roads should be allowed to expand instead of moving grows to lower lying areas close to cities or heavily populated areas . Also the higher elevation areas are preferred by many farmers for better quality. (Think of different grapes that have to be grown at different elevarious for best flavor)

I believe as permits are issued there is also a follow up that these businesses are filling proper forms with the state like sales tax and such . I have many more concerns and I know this process is challenging for all. Thank yoy

Sent from my Verizon 4G LTE smartphone

**Nelson-Hillside Association**
501 Maya Ln. Fortuna, CA 95540
NHA@suddenlink.net / 707-496-4703

May 1, 2017

Steven Lazar
Humboldt County Planning
& Building Department
3015 H Street
Eureka, CA 95501

Sent by email: slazar@co.humboldt.ca.us

Re: Response to DIER NOP

Dear Steve:

The Nelson-Hillside Association (NHA) is an association of nearly 50 property owners that reside either adjacent to or within a few blocks of the Nelson Lane parcel (Fortuna) that contains 3 pending applications (HCCMM Land Use Ordinance and Applications: 12160, 12157, and 12158). The majority of our members reside within the City Limits of Fortuna, which is adjacent to the Nelson parcel on three sides; with about a dozen that reside on the 4th side that is within the County. The NHA is an interested party and wishes to remain active in the drafting and discussions concerning the amended Ordinance. The following issues are those that specifically affect this neighborhood and the City of Fortuna. The order of response follows the items in your Project Description of the NOP dated April 4, 2017 and is not listed in any priority.

***Repeal the deadline for applications...***

We believe the County should institute an immediate moratorium and freeze all decisions on existing applications until the amended ordinance has been accepted and enacted. We believe that all new applications, and those received prior to 12/31/16, should be subject to the revisions that will be contained in the amended ordinance. So we object to repealing the deadline to accept more applications "without significant change"

***Expand the areas where new cultivation...***

We do not agree that cultivation areas should be expanded into lower portions of principal watersheds. Protection of our watersheds, and the flora and fauna that depend of these should be protected against surface runoff associated with these sites and from excess irrigation. The use of amendments in this industry is well known, organic or not and will adversely affect algae growth and all downstream uses and users.

Surface water diversion, if allowed, should be highly controlled. This industry has a dismal track record of surface water diversions to the detriment of down stream flows and users. We know that the cumulative effect of surface water diversions has been detrimental to our major river systems, especially the Eel, Klamath and Mad Rivers.

Ground water must be carefully monitored as to not have adverse effects on nearby citizens who depend on existing wells for domestic water. Residents should not have to claim "competing water" in order to protect their wells. The amount of water pumped by a commercial cannabis operation is substantial, therefore, the burden of proof to show NO IMPACT on neighboring wells should be on the applicant, prior to cultivation, and not after the neighbors wells have been affected.

Private or privately maintained roads should be protected from the degradation resulting in high traffic and commercial vehicles that will result from these large commercial operations. It is already a travesty that the County will not maintain it's road system, but to permit a use of the road that will deteriorate it further without planned and mandated maintenance by the new user only adds to the neighbors discomfort and financial burdens.

***Apply special requirements/limitations for projects located within spheres of influence or community areas...***

We object to the approach of "special requirements/limitations" and fervently believe a buffer zone, exclusion zone and a substantial set-back should be established around <u>all City limits and all rural neighborhoods.</u> Cities must be allowed to protect and have input as to developments being considered within their Sphere of Influence (SOI), especially when otherwise qualified sites exist immediately adjacent to City boundaries. Likewise, there are many areas, just outside of City boundaries where rural neighborhoods are developing and hope to someday be annexed into the City. In many cases the City is already supplying water, sewage and public protection to these areas. To allow a commercial operation of this nature adjacent to or within very close proximity to children, families and neighborhoods is wrong in every aspect of the action. The County must also look at is own General Plan to see that draft pre-zoning of these areas has already been established with more appropriate land use classifications, indicating that these areas are being recognized for what they are and are planned to be rezoned to Residential in varying sized parcels, usually 2.5-5. This zoning would immediately prohibit such commercial applications, yet because the County has taken years to approve its GP update, commercial applications are being accepted and approved in these areas, in spite of its own pre-zoning. Therefore the amended ordinance <u>must establish a substantial buffer zone</u> around any SOI or rural neighborhoods. Most City and County ordinances for retail sales, dispensaries and processing facilities have substantial set-back or exclusion zones ranging from 500' to 1000' from schools, churches, bus stops, playgrounds or anywhere children congregate. All of these cannabis related businesses are done inside and out of the public's eye and still have protective set-backs. So simply apply the same principal for these outside, in "plain view" operations when being considered in and around family neighborhoods.

***Provide for additional amendments to existing ordinance provisions including: application requirements, performance standards, general provisions, and permit types...***

While the recent proposition to allow and expand the uses and cultivation of cannabis was approved by the voters, and will soon be codified in State Laws, these do not in any way eliminate the public's right to comment and influence local ordinances, general provisions or permits dealing

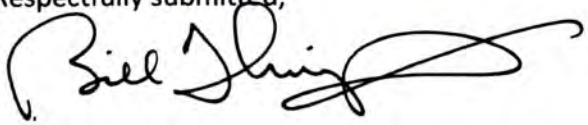
with implementation at the local level. CEQA fundamentals should be embraced and followed in all instances, allowing for proper environmental review and providing the public with a forum on issues germane to them, their homes and communities. No aspect of the amended ordinance should be non-discretionary or ministerial. These are serious matters that impact the public's welfare, peace of mind, the welfare and impact on children and the communities where we live. The public has the right to be involved and comment on issues that will impact their lives and families.

We seem to be moving in a direction to make the cannabis industry transparent, supervised, regulated and taxed; **all good directions.** But this move should NOT bar the public from participating in these changes. Rendering the current ordinance primarily non-discretionary and ministerial bars the public form any form of comment, objections or participation. Again, the NHA calls for an immediate moratorium on all existing applications until the amended ordinance has been written, vetted and approved. Continuing to process applications, in view of the many failures and omissions that this amending process is trying to correct, is wrong and will have serious repercussions on the County if it continues on its present course.

We also ask to be notified and invited to any further meetings, discussions, workshops or scoping sessions that may be scheduled concerning the amended ordinance. We will be happy to send one or two representatives to participate. Direct all notices to:

NHA
501 Maya Lane
Fortuna, CA 95540
or by email to NHA@suddenlink.net

Respectfully submitted,



Bill Thorington, Co-Chairman
Nelson-Hillside Association

**From:** Susan Nolan
**To:** Lazar, Steve
**Subject:** Amendments to County Code Regulating Cannabis Activities
**Date:** Sunday, April 9, 2017 6:21:19 PM

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Dear Mr. Salazar,
It's very good to hear that County Planning and Building Department is preparing an Environmental Impact Report on accepting more cannabis cultivation permit applications and clarifying regulations.
The Notice lays out a thorough list of issues to be covered. I look forward to scoping. This is certainly needed. My only concern is for adequate funding to follow through on permit processing.
Thank you,
Susan Nolan.

*Keeping Northwest California Wild Since 1977*

*Sent via email on date shown below*

May 9, 2017

Steve Lazar
Humboldt County Planning & Building Department
3015 H Street
Eureka CA 95501

Dear Mr. Lazar,

Thank you for the opportunity to comment on the Notice of Preparation for the Amendments to Humboldt County Code Regulating Commercial Cannabis Activities. Please accept these comments on behalf of the Environmental Protection Information Center (EPIC)

EPIC supported the development of the Humboldt County Medical Marijuana Land Use Ordinance because we felt that the best path forward for our county was a well regulated marketplace. We continue to believe that environmental destruction hides in the shadows and that we can best minimize and mitigate existing environmental issues associated with cannabis production by bringing operations into the regulatory "light." Addressed by topic below are EPIC's concerns with, and thoughts about, the proposed amendments.

### *Light and Noise Pollution*

One of the most frequently mentioned issues with the existing cannabis "scene" is the amount of noise produced by generators and light pollution from grow lights. EPIC recommends completely banning the use of generators, as this is a cleaner and easier solution than setting hard to enforce decibel restrictions. Further, EPIC recommends strict light pollution standards be developed. To ensure the success of the program, we need to ensure that cannabis cultivators will be good neighbors. This is one important step towards that end.

### *Timberlands*

EPIC commends the Board the proposed to prohibition of new or expanded cultivation that would require the conversion of timberlands. This solution is preferable to prohibiting new operations on TPZ—as it was constructed in the medical land use ordinance—as "timberlands," per the state law definition, is a broader category of land. Fragmentation and conversion of our forests is one of the greatest environmental issues associated with the "green rush."

### *Mandatory Water Storage*

EPIC encourages the county to consider an alternative that mandates 100% water storage throughout the dry season. EPIC is concerned that allowing surface flow diversions, even those enforced by "flow data or localized water management plan[s]," will inadequately address cumulative affects. Our North Coast salmon are barely holding on; to ensure that future generations can know and appreciate our natural salmon fisheries, it is important that the county acts with an abundance of caution.

### *Grading Ordinance*

Please incorporate, or if already incorporated, make clear that, compliance with the county's grading ordinance is mandatory. Our poor rural road system is a systemic source of sediment and air pollution. Compliance with the county's grading ordinance would ensure that major issues with roads and other large disturbances are minimized.

### *Enforcement*

EPIC understands that enforcement of the code is a separate, albeit related, issue to the proposed amendments. That said, the issue is still related. In determining the number of permits and/or the fees associated with permits, ensure that county staff will be able to review sufficient numbers of properties to ensure compliance with the code and to act as a deterrence to scofflaws who may try to hide their bad behavior under the "green dot" of compliances. EPIC is concerned that the county is already beyond its capacity to enforce the medical marijuana ordinance.

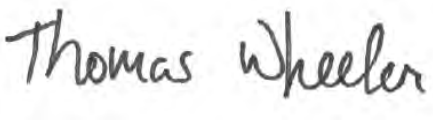
Further, EPIC recommends increasing penalties for violations of the ordinance, including potential liens on properties out of compliance. A successful ordinance requires both a carrot and a stick. Current penalties do not appear to be sufficient as the majority of cannabis farms did not appear to register for the medical land use ordinance.

### *Conclusion*

In fin, EPIC remains committed to working with other stakeholders to develop an effective land use ordinance. EPIC thanks the county for its work thus far and for the opportunity to participate here.

Should you have any questions or need to reach me, my number is (707) 822-7711 or I can be reached at tom@wildcalifornia.org.

Sincerely yours,



Sincerely yours,
Thomas Wheeler
Executive Director
Environmental Protection Information Center

STATE OF CALIFORNIA

# GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

**Notice of Preparation**

RECEIVED
APR 10 2017
Humboldt County
Planning Division

April 6, 2017

To: Reviewing Agencies

Re: Amendments to Humboldt County Code Regulating Commercial Cannabis Activities
SCH# 2017042022

Attached for your review and comment is the Notice of Preparation (NOP) for the Amendments to Humboldt County Code Regulating Commercial Cannabis Activities draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

**Steve Lazar**
**Humboldt County**
**3015 H Street**
**Eureka, CA 95501**

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

# Document Details Report
# State Clearinghouse Data Base

**SCH#** 2017042022
**Project Title** Amendments to Humboldt County Code Regulating Commercial Cannabis Activities
**Lead Agency** Humboldt County

**Type** NOP Notice of Preparation

**Description** The proposed amendments to the Humboldt County Code including provisions previously established by ordinance Nos. 2554 and 2559 are intended to achieve the following regulatory objectives:

- Repeal the deadline for applications, and continue to accept applications under Ordinance No. 2559 for medical cannabis without significant changes.
- Expand the scope of the Ordinance Nos. 2554 and 2559 to include commercial marijuana operations for adult recreational use now authorized by AUMA, under the same general regulations as medical cannabis.
- Expand the areas where new cultivation or expansion of existing cultivation sites will be permitted to locations with or without prime agricultural soils that are planned and zoned for agricultural use, meeting specific criteria to be established:
- Natural slopes 15 % or less
- In lower portions of principal watersheds where established riparian water rights exist
- With viable local on-site water source, including:
  - o Rainwater capture and storage
  - o Surface water diversion and storage under standard forbearance period or refined or dynamic period set by flow data or localized water management plan
  - o Groundwater, where known to be non-hydrologically connected
- Located on or within 1 mile of county-maintained roads
- Or located on private road systems meeting the category 4 road standard
- With on-grid power or alternative energy source (solar, wind, or micro-hydro)
- Restrict or prohibit generator use
- Limit new cultivation or expansion to areas not requiring conversion of timberland
- Provide for micro-business license type under AUMA within 2 miles of state highways
- Apply special requirements/limitations for projects located within spheres of influence or community areas
- Provide consistency with state law amendments to medical cannabis regulations (MCRSA)
- Provide consistency with state agency regulations to implement MCRSA and AUMA by Departments of Consumer Affairs, Food & Agriculture and Public Health, or other agencies
- Provide consistency with forthcoming interim principles and guidelines for diversion and use of water for cannabis cultivation to be prepared by the State Water Resources Control Board in consultation with the Department of Fish and Wildlife
- Provide for additional amendments to existing ordinance provisions including: application requirements, performance standards, general provisions, and permit types
- Amendments to other relevant provisions of Humboldt County Code including but not limited to:
  - o County Code Enforcement provisions
  - o Humboldt County Streamside Management Area Ordinance
  - o County Business License provisions

Note: Blanks in data fields result from insufficient information provided by lead agency.

# Document Details Report
# State Clearinghouse Data Base

## Lead Agency Contact

| | |
|---|---|
| **Name** | Steve Lazar |
| **Agency** | Humboldt County |
| **Phone** | (707) 445-7541 **Fax** |
| **email** | slazar@co.humboldt.ca.us |
| **Address** | 3015 H Street |
| **City** | Eureka **State** CA **Zip** 95501 |

## Project Location

| | | | | |
|---|---|---|---|---|
| **County** | Humboldt | | | |
| **City** | | | | |
| **Region** | | | | |
| **Cross Streets** | | | | |
| **Lat / Long** | | | | |
| **Parcel No.** | | | | |
| **Township** | **Range** | **Section** | **Base** | |

## Proximity to:

| | |
|---|---|
| **Highways** | |
| **Airports** | |
| **Railways** | |
| **Waterways** | Pacific Ocean, Klamath River, Trinity, River, Mad River, Van Duzen River, Mattole River, Eel Riv |
| **Schools** | |
| **Land Use** | County Wide |

**Project Issues** Aesthetic/Visual; Toxic/Hazardous; Agricultural Land; Forest Land/Fire Hazard; Water Quality; Geologic/Seismic; Landuse; Public Services; Archaeologic-Historic; Air Quality; Biological Resources; Other Issues

**Reviewing Agencies** Resources Agency; California Coastal Commission; Department of Conservation; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Wildlife, Region 1E; Native American Heritage Commission; State Lands Commission; Caltrans, District 1; State Water Resources Control Board; Regional Water Quality Control Board, Region 1; California Department of Justice, Attorney General's Office

**Date Received** 04/06/2017 **Start of Review** 04/06/2017 **End of Review** 05/05/2017

Note: Blanks in data fields result from insufficient information provided by lead agency.

# NOP Distribution List

TP

County: Humboldt

SCH# 2017042022

## Resources Agency

- [x] **Resources Agency**
  Nadell Gayou
- [ ] **Dept. of Boating & Waterways**
  Denise Peterson
- [x] **California Coastal Commission**
  Elizabeth A. Fuchs
- [ ] **Colorado River Board**
  Lisa Johansen
- [x] **Dept. of Conservation**
  Crina Chan
- [ ] **California Energy Commission**
  Eric Knight
- [ ] **Cal Fire**
  Dan Foster
- [ ] **Central Valley Flood Protection Board**
  James Herota
- [x] **Office of Historic Preservation**
  Ron Parsons
- [x] **Dept of Parks & Recreation**
  Environmental Stewardship Section
- [ ] **California Department of Resources, Recycling & Recovery**
  Sue O'Leary
- [ ] **S.F. Bay Conservation & Dev't. Comm.**
  Steve Goldbeck
- [x] **Dept. of Water Resources**
  Resources Agency
  Nadell Gayou

## Fish and Game

- [ ] **Depart. of Fish & Wildlife**
  Scott Flint
  Environmental Services Division
- [ ] **Fish & Wildlife Region 1**
  Curt Babcock
- [x] **Fish & Wildlife Region 1E**
  Laurie Harnsberger
- [ ] **Fish & Wildlife Region 2**
  Jeff Drongesen
- [ ] **Fish & Wildlife Region 3**
  Craig Weightman
- [ ] **Fish & Wildlife Region 4**
  Julie Vance
- [ ] **Fish & Wildlife Region 5**
  Leslie Newton-Reed
  Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6**
  Tiffany Ellis
  Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6 I/M**
  Heidi Calvert
  Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Wildlife M**
  William Paznokas
  Marine Region

## Other Departments

- [ ] **Food & Agriculture**
  Sandra Schubert
  Dept. of Food and Agriculture
- [ ] **Dept. of General Services**
  Cathy Buck
  Environmental Services Section
- [ ] **Delta Stewardship Council**
  Kevan Samsam
- [ ] **Housing & Comm. Dev.**
  CEQA Coordinator
  Housing Policy Division

## Independent Commissions,Boards

- [ ] **Delta Protection Commission**
  Erik Vink
- [ ] **OES (Office of Emergency Services)**
  Monique Wilber
- [x] **Native American Heritage Comm.**
  Debbie Treadway
- [ ] **Public Utilities Commission**
  Supervisor
- [ ] **Santa Monica Bay Restoration**
  Guangyu Wang
- [x] **State Lands Commission**
  Jennifer Deleong
- [ ] **Tahoe Regional Planning Agency (TRPA)**
  Cherry Jacques

## Cal State Transportation Agency CalSTA

- [ ] **Caltrans - Division of Aeronautics**
  Philip Crimmins
- [ ] **Caltrans – Planning HQ LD-IGR**
  Christian Bushong
- [ ] **California Highway Patrol**
  Suzann Ikeuchi
  Office of Special Projects

## Dept. of Transportation

- [x] **Caltrans, District 1**
  Rex Jackman
- [ ] **Caltrans, District 2**
  Marcelino Gonzalez
- [ ] **Caltrans, District 3**
  Eric Federicks – South
  Susan Zanchi - North
- [ ] **Caltrans, District 4**
  Patricia Maulce
- [ ] **Caltrans, District 5**
  Larry Newland
- [ ] **Caltrans, District 6**
  Michael Navarro
- [ ] **Caltrans, District 7**
  Dianna Watson
- [ ] **Caltrans, District 8**
  Mark Roberts
- [ ] **Caltrans, District 9**
  Gayle Rosander
- [ ] **Caltrans, District 10**
  Tom Dumas
- [ ] **Caltrans, District 11**
  Jacob Armstrong
- [ ] **Caltrans, District 12**
  Maureen El Harake

## Cal EPA

**Air Resources Board**

- [ ] Airport & Freight
  Cathi Slaminski
- [ ] Transportation Projects
  Nesamani Kalandiyur
- [ ] Industrial/Energy Projects
  Mike Tollstrup
- [ ] **State Water Resources Control Board**
  Regional Programs Unit
  Division of Financial Assistance
- [x] **State Water Resources Control Board**
  Cindy Forbes – Asst Deputy
  Division of Drinking Water
- [ ] **State Water Resources Control Board**
  Div. Drinking Water #_____
- [ ] **State Water Resources Control Board**
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [ ] **State Water Resouces Control Board**
  Phil Crader
  Division of Water Rights
- [ ] **Dept. of Toxic Substances Control**
  CEQA Tracking Center
- [ ] **Department of Pesticide Regulation**
  CEQA Coordinator

## Regional Water Quality Control Board (RWQCB)

- [x] **RWQCB 1**
  Cathleen Hudson
  North Coast Region (1)
- [ ] **RWQCB 2**
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] **RWQCB 3**
  Central Coast Region (3)
- [ ] **RWQCB 4**
  Teresa Rodgers
  Los Angeles Region (4)
- [ ] **RWQCB 5S**
  Central Valley Region (5)
- [ ] **RWQCB 5F**
  Central Valley Region (5)
  Fresno Branch Office
- [ ] **RWQCB 5R**
  Central Valley Region (5)
  Redding Branch Office
- [ ] **RWQCB 6**
  Lahontan Region (6)
- [ ] **RWQCB 6V**
  Lahontan Region (6)
  Victorville Branch Office
- [ ] **RWQCB 7**
  Colorado River Basin Region (7)
- [ ] **RWQCB 8**
  Santa Ana Region (8)
- [ ] **RWQCB 9**
  San Diego Region (9)

- [x] **Other** Attorney Gen.
- [ ] _____
  Conservancy

Last Updated 1/17/17

From Fortuna Residents
who use Home Avenue

To Steve Lazar

Everyone prefers 300 ft set backs from residents that are on adjoining properties or across the street from a grow and 200 feet from preserves

The "attached" letter from Tim Meade was copied and handed to residents who wanted more time to read it, I will mail you one of the copies even though it was already mailed to you from Tim.

4/20/2017

To: Steve Lazar and everyone who can improve cannabis growing regulations.

Cannabis growers have rights but so do citizens who rent or own homes in Humboldt County. Many people in the Nob Hill area of Fortuna, CA border sections of land ~~of land that~~ that are in the county but not in the city. If a cannabis grow is suddenly 40 feet from our property line, the smell will no doubt ruin the quality of life in our houses and yards.

Grows should be at least 300 feet from a neighbors houses and at least 200 feet from property lines. This would at least lessen the "skunky" smell. No visible lights and no audible sounds (not just from generators, but from any noise connected to the grow) are also essential.

Excessive use and contamination of water are also concerns. In many places on our hill, water flows downhill from one person's property across another's. If the water is contaminated this should not be allowed.

Increased traffic would also be an issue in our area which is accessible by only Home Avenue, a collector road.

There are many instances where grows have brought in people who ruin the security of an area. That is a concern in a neighborhood with many families nearby, such as in our area.

Nearby cannabis grows can also lower property values of homeowners.

There are many places in Humboldt County where cannabis can more easily be grown at least 300 feet from neighbor's homes and at least 200 feet from property lines. Cannabis growers have rights but so do their neighbors. These setbacks are essential. We are counting on you not to just think of the cannabis business but the rights of the neighbors impacted by your decisions.

We also agree with everything in Tim Meade's attached letter concerning cannabis grows.

| Print Name | Signature | Address |
|---|---|---|
| Helen Winfrey | Helen Winfrey | 525 Garland Ave, Fortuna |
| Jeff Northern | Jeff Northern | 372 Garland Ave. Fortuna |
| DEB MEADOR | Deb Meador | 3600 GARLAND AVE. |
| Bryce DEES | | 341 Garland Ave |
| Tim Ireland | | 351 Garland Ave |
| Katharine Ireland | | 351 Garland Ave |
| Marilyn Lewis | Marilyn Lewis | 300 Garland Ave, Fortuna |
| Dennis Lewis | Dennis Lewis | 300 Garland Ave, Fortuna |
| DeAnn Willis-Sharkey | DeAnn Willis-Sharkey | 402 Garland Ave. Fortuna |
| Dena Rovai | Dena Rovai | 570 Garland Fortuna |
| Kris Wohless | | 598 Garland Ave |
| Martin Abshire | | 817 Holman way |
| Elizabeth Abshire | Elizabeth Abshire | 817 Holman Way Fortuna |
| Sharon Quinn | Sharon Quinn | 833 Holman Way. Fortuna |
| Ann Benton | Ann Benton | 840 Holman Way - Fortuna |
| [illegible] | [illegible] | [illegible] |
| Dean Delbert Harris | Dean Delbert Harris | 546 Garland Ave |
| Steve Harris | Steve Harris | 546 Garland Ave |
| Kenneth Patmore | Kenneth Patmore | 528 Garland Ave. |
| Linda S. Patmore | Linda S. Patmore | 528 Garland Ave |
| Pamella Gorman | Pamella Gorman | 361 Garland Ave |
| Douglas Pressley | | 536 Garland Ave, Fortuna |
| Dawn Boechler | Dawn Boechler | 535 Garland Ave Fortuna |

| Print Name | Signature | Address |
| --- | --- | --- |
| Sheldon Boechler | Sheldon Boechler | 535 Garland Ave. Fortuna |

4/20/2017

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We also agree with everything in Tim Meade's attached letter concerning cannabis grows.

| Print Name | Signature | Address |
|---|---|---|
| Joan Bennett | Joan Bennett | 475 Nob Hill Rd Fortuna, Ca |
| Virginia Meadors | Virginia Meadors | 884 Baer Ct. Fortuna, CA |
| JERRY W MEADORS | Jerry W Meadors | 884 Baer Ct, Fortuna, CA. |
| Cynthia Cowell | Cynthia Cowell | 548 Nob Hill Rd, Fortuna CA |
| Jessica Crotty | Jessica Crotty | 545 Nob Hill Rd, Fortuna CA |
| Marilyn Moore | Marilyn L Moore | 540 Nob Hill Rd Fortuna CA |
| Jordee, Herrera | Jordee Herrera | 529 Nob Hill Rd Fortuna, CA |
| Gary L. Gundlach | Gary L. Gundlach | 512 Nob Hill Rd Fortuna |
| Shawn Gundlach | Shawn Gundlach | 512 Nob Hill Rd Fortuna CA. |
| Kenneth Foutes | Kenneth Foutes | 500 Nob Hill Rd Fortuna CA |
| Kelp Campbell | Kelp Campbell | 450 Nob Hill Rd Fortuna |
| Vickie Collins | Vickie Collins | 400 Nob Hill Rd Fortuna CA |
| Rose Haaas | Rose Haaas | 551 Nob Hill Rd Fortuna Ca |
| Philip Johnson | Philip Johnson | 830 Baer Ct. Fortuna, CA |
| Casey Emmons | Casey Emmons | 602 Baer Ct. Fortuna, Ca |
| Angela Johnson | Angela Johnson | 830 Baer Ct. Fortuna, Ca |
| Kyle Cooper | Kyle Cooper | 2030 Home Ave |
| AARON STACY | Aaron Stacy | 820 HOLMAN WY |
| Shannon Stacy | Shannon Stacy | 820 Holman Way |
| Stacy Edgmm | Stacy Edgmm | 1990 Home Ave, Fortuna, CA |
| Elizabeth Warden | Elizabeth Warden | 1970 Home Ave, Fortuna, CA |
| FRED W. LONG | Fred W. Long | 1970 Home Ave, Fortuna, CA |
| Reid Fisher | Reid Fisher | 522 Nob Hill Fortuna Ca. |

| Print Name | Signature | Address |
|---|---|---|
| Randall Bennett | Randall Bennett | 475 Nob Hill Rd. Fortuna |
| Helen C. Nelson | Helen C Nelson | 501 Nob Hill Rd Fortuna |
| W. Scott Nelson | W. Scott Nelson | 501 Nob Hill Rd. Fortuna |
| Jeremy Biley | | 501 Nob Hill Rd fortuna |
| B / + S HARWell | Sheryl Harwell | 521 NOB Hill Rd Fortuna |

This is the letter that every person was shown and offered a copy of as the petition was signed. Please attach it to the petition if you want to.

Thanks for talking with me yesterday. I will continue to tell people to trust that you will make changes to protect residences from grow issues

REC
MAY -

EIVED
· 9 2017
t County
Division

Humboldt County Planning & Building Department 4-16-17
3015 H Street
Eureka, CA 95501
ATTN: Steven Lazar

Steve: Some of these suggestions are rewrites from other ordinances and have been adopted as practical.

Ref: **NOP REVIEW**

The following suggestions are for the Notice of Preparation to the Environmental Impact Report scheduled to be implemented in 2017. The goal of these comments are to maintain or improve the character, appearance, and livability of established neighborhoods to include our surrounding environment. I'm asking that we protect this environment from incompatible uses, excessive noise, traffic, dust, light spillage, glare, odor, and similar significant nuisances that may be caused by cannabis cultivation.

By considering these recommendations we can ensure our environment is adequately protected both inside and outside any Sphere of Influence (SOI) within Humboldt County.

* **Residential setback**

On eligible parcels regardless of size, any commercial marijuana cultivation area must be setback at least a minimum of three hundred (300) feet from existing residences on adjoining parcels. This will provide a reasonable buffer zone to help eliminate nuisances.

* **Property Line Setback**

Any cannabis cultivation area must be setback a minimum of at least one hundred (100) feet from the property line.

* **Prime Ag Land**

As you had mentioned in your NOP; Expand the areas where new cultivation or expansion of existing cultivation sites will be permitted to locations with or without prime agricultural soils that are planned and zoned for agricultural use.
This would be extremely helpful where cultivators have prime soils close to adjacent neighbors but also have the opportunity to relocate. Gaining access to some of these prime ag locations may cause significant environmental harm.

* **Odor**

1. A greenhouse utilizing a mixed-light operation used for marijuana production or a building used for marijuana processing shall be equipped with an activated carbon filtration system for odor control to ensure that air leaving the building through an exhaust vent first passes through an activated carbon filter.
2. The filtration system shall consist of one or more fans and activated carbon filters. At a minimum, the fan(s) shall be sized for cubic feet per minute (CFM) equivalent to the volume of the building (length multiplied by width multiplied by height) divided by three. The filter(s) shall be rated for the applicable CFM.
3. The filtration system shall be maintained in working order and shall be in use. The filters shall be changed a minimum of once every 365 days.
4. Negative air pressure shall be maintained inside the building.
5. Doors and windows shall remain closed, except for the minimum length of time needed to allow people to ingress or egress the building.
6. The filtration system shall be designed by a mechanical engineer licensed in the State of California. The engineer shall stamp the design and certify that it complies with the amended Commercial Medical Marijuana Land Use Ordinance.
7. An alternative odor control system is permitted if the applicant submits a report by a mechanical engineer licensed in the State of California demonstrating that the alternative system will control odor as well or better than the activated carbon filtration system otherwise required.

* **Noise**

The applicant shall submit a noise study by an acoustic engineer licensed in the State of California. The study shall demonstrate that all mechanical equipment used for heating, ventilating, air conditioning, or odor control will not produce sound that, when measured at any lot line of the subject property, exceeds 50 dB(A). Any type of disruptive mechanical noise should not be audible at adjacent residences. The use of generators within a SOI should be restricted.

* **Hydrology and Water Quality**

Many groundwater wells rely on a hydrologic connection between one another and to the rivers and streams of the valleys. By allowing irrigation wells in any area cultivating close to residential wells and surface water has the "potential for interference with each another". It is important to realize when high impact activities occur, such as marijuana cultivation off a groundwater well near residential wells or a stream, we are in "uncharted waters" so to speak. We must look for ways to protect our environment and become aware of the gift we often take for granted.

* **Security Cameras**

If used, security cameras shall be directed to record only the subject property and may be directed to public rights-of-way as applicable. Cameras are not to be directed toward neighborhood residences or properties.

* **Security Lights**

If used, security lights shall not be directed toward any adjacent residences or in any manner disrupt any environmentally sensitive habitat areas.

* **Aesthetics and Property Values**

There should be a stronger emphases on aesthetics and the effect that cultivation has on adjacent property values.

Inside of all Spheres Of Influence earth tone fencing should be a requirement.

Chain link fencing shall be vinyl coated in earth tone colors to be compatible with the lot upon which it is to be built, in terms of topography, soil and existing vegetation. All chain link accessories, posts, gates and other fencing materials must be color coordinated in earth tones to match the vinyl coating.

The planting of a privacy vegetation screen is also highly recommended.

* **Neighbor Notification**

Any commercial marijuana cultivation, both inside and outside a SOI, should provide adjacent neighbors of the intent to grow as part of the application process. This will give that neighbor a chance to voice any type of concerns including right-of-way, safety, nuisance, or environmental obstacles.

Considering these proposed amendments is extremely important to the public safety, quality of life, property values of our citizens and the environment we all live in.

Tim Meade
400 Nob Hill
Fortuna, CA 95540
707-725-2011

**From:** Kim Puckett
**To:** Lazar, Steve
**Subject:** Cannabis EIR
**Date:** Monday, May 8, 2017 4:59:29 PM

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I am writing this to express my concerns about cannabis permits being allowed in agricultural areas that border residential areas. We bought our home 13 years ago long before legalized pot could be considered an agricultural product and have poured our life savings into it only to find that 160 acres that basically border our home have possibly been issued permits for growing marijuana. This raises huge concerns for us about smells, sounds, lights, environmental degradation, pesticide use, and possible increases in crime due to large amounts of pot being grown near our home.

**From:** Nathan Queener
**To:** Lazar, Steve
**Subject:** Comments on NOP of Draft EIR for commercial cannabis
**Date:** Tuesday, May 9, 2017 1:30:35 AM

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Dear Mr. Lazar:

In reading the Notice of Preparation for the EIR re: cannabis cultivation, I am struck by two ways in which a document prepared according to the NOP may drastically underestimate the actual environmental and socio-cultural impacts of the County's cannabis cultivation ordinances.

The first is the establishment of the "baseline" in the NOP as the end of 2016. As a resident of a rural area of the county for the last decade I concur with the account of "anecdotal information" describing a pattern of "near-exponential growth" in the cannabis industry during that time. That growth has seemed particularly rapid in the last two years, judging by the number of new people in town, the incredibly inflated land prices, the fences and greenhouses popping up on every vacant parcel, the now steady procession of big trucks full of soil and irrigation supplies, ... This incredible growth in new cultivation seems to have been driven in large part by three phenomena, all directly related to the county's laudable steps towards establishing a legal pathway for cultivation:

1 - Farmers who intend to comply with county regulations wanting to ensure they establish the maximum amount of cultivated area prior to enrolling in county compliance.

2 - those who **don**'t intend to comply with county regs and are sure that this is "the last good year," and consequently they need to maximize profit this one, last time.

3 - Venture capitalists who may or may not be pursuing a legal pathway, many if not most from outside the county, with access to large sums of capital to pump into land and infrastructure, who see a prime investment opportunity in the current confused market and regulatory scheme

The county's recent actions have already inadvertently contributed, in part, to the huge increase in the amount of cultivation in the last two years. There seems to be widespread consensus that this level of cultivation is already having significant adverse impacts, so why consider the current situation the "baseline"?

The second major issue - most EIRs pre-suppose that government regulation can and will have an effective impact on the activities whose impacts are being analyzed. To date, I'd argue that the impact of county regulation on cannabis cultivation has been extremely limited and ineffectual. Analyzing the environmental impact of different county regulatory approaches if the county has no way to actually enforce those regulations is probably just a waste of time. I'd suggest that the EIR should explicitly consider the county's likely capacity to enforce regulations in analyzing environmental outcomes - if the status quo continues and enforcement is drastically over-whelmed by the scale of cultivation, it will not matter how permissive or restrictive the county's ordinance is.

In light of the limited enforcement resources available, it seems advisable to make sure that a final ordinance will greatly streamline paperwork for operations with limited capacity to cause

environmental harm beyond that likely to occur from any home- garden scale operation growing something other than cannabis, and allow for a focus on those operations with the greatest capacity for truly significant impacts.

Thank you for your time and your efforts.
Nathan Queener
PO Box 52
Petrolia CA 95558

| | |
|---|---|
| **From:** | dan rathbun |
| **To:** | Lazar, Steve |
| **Subject:** | cannabis in the mattole valley |
| **Date:** | Monday, May 8, 2017 11:53:11 PM |

Hi Steve.

My family moved to the Mattole valley in the 70's as part of the "back to the land movement" There was a lot of pot growing, but it was done largely in a spirit of idealism, environmentalism and utopianism.
Recently it has taken a turn toward pure capitalism. In this new "boom" economy nothing matters but money.

In my opinion the roll of the government should be to protect the rights of the residents just as they would be protected from chemical pollution by a big factory moving in.

water pollution and over use, light pollution and air/noise pollution by generators, reckless land clearing and road building leading to erosion. Huge amounts of plastic waste. Vastly increased traffic on our roads by people who appear not to value the lives of our children judging by their excessive speed.

For years our community functioned happily with next to no law enforcement but now i think we really need some. And the difference is that we now have people in our community who do not give a shit about our community. It is time for the law to step in and protect our society.

the list above are all items that need regulation and/or enforcement.

i also understand that the current tax system encourages growing in greenhouses rather than in open air. I think it goes without saying that the tax structure should encourage the most environmentally sound growing practices, not the other way round. but if you tax by the square foot you herd growers toward dense pack operations. we should be encouraging gardens in natural soil and natural light spaced according to the carrying capacity of the land.

Because i am not in the growing business i may be somewhat ignorant of the facts. my apologies if i have gotten some wrong.

thanks

little danny rathbun
thbun@mac.com
707 629 3283

| | |
|---|---|
| **From:** | Wieman, Dwight |
| **To:** | Lazar, Steve |
| **Cc:** | Martel, Melissa; Hawkins, Carolyn; Hill, Harriet; Wieman, Dwight |
| **Subject:** | RE: Cannabis Ordinance EIR prep - Comments from Environmental Health |
| **Date:** | Monday, May 8, 2017 1:29:09 PM |
| **Attachments:** | image001.png<br>image004.jpg |

Good Afternoon Steve,

Below are our comments from Environmental Health for the NOP. If you have any questions, you can forward those to any of the contacts on the "CC" list above. Thank you for the opportunity to review and comment on the NOP.

From Harriet Hill:

The Notice of Preparation of a Draft Environmental Impact Report (EIR) for "Amendments to Humboldt County Code Regulating Commercial Cannabis Activities" contains only a brief reference to the impact of cannabis cultivation sites on existing solid waste facilities on page 12 under *Utilities and Service Systems*. It states "The EIR will identify and analyze impacts of cannabis cultivation sites on existing utility systems and services, including increases in generation of cultivation-related waste such as the disposal of spent bulk soil imported to cultivation sites."
We agree that the proper handling of spent bulk soil created by cannabis operations should be discussed in the EIR, including onsite alternatives to soil disposal, such as reconditioning and reusing it for cannabis or other cultivation. The EIR should give due consideration to the necessity of handling all forms of solid waste and recyclables potentially generated as a result of regulating commercial cannabis. In southern Humboldt County, the volume of disposed solid waste has been steadily accelerating as evidenced by a significant spike in tonnages received by the Redway Transfer Station over the last five years. According to facility operators, relatively little of this waste currently consists of spent soil. Note that Humboldt County Public Works was recently planning a replacement of this facility due to age, condition and an increase in waste volume but has stated that other projects have taken priority.

In short, the current recyclables handing capacity and solid waste handling capacity should both be well analyzed in the EIR.

Thank you,

DJ Wieman
Administrative Analyst
County of Humboldt, DHHS, PH
Division of Environmental Health
100 H Street, Suite 100
Eureka, CA 95501
(707) 268-2229
(707) 441-5699 (fax)
For more information about Humboldt County Environmental Health programs please go to:
Humboldt County Environmental Health

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**From:** Hawkins, Carolyn
**Sent:** Friday, April 28, 2017 4:27 PM
**To:** Martel, Melissa <MMartel@co.humboldt.ca.us>; Lancaster, Larry <LLancaster@co.humboldt.ca.us>; Hill, Harriet <HHill@co.humboldt.ca.us>
**Cc:** Kalson, Mario <MKalson@co.humboldt.ca.us>; Wieman, Dwight <DWieman@co.humboldt.ca.us>
**Subject:** FW: Cannabis Ordinance EIR prep

Planning & Building issued the Notice of Preparation of their draft EIR for this project on April 8th. There is a 30 day comment period for the public and Responsible Agencies. Written comments need to be sent to Planning by May 9th—one week from Tuesday.
I placed a copy of the NOP at this link:
\\Dhhs-file01\shares\ENVH\EH Resources\Marijuana Ordinance 2016\EIR\Notice of Preparation.pdf

LEA needs to make sure they are covering the solid waste impacts of this ordinance. The NOP should provide an overview of the elements they will cover. I have not read it yet—I just ran across the NOP today.

**Harriet, can you review the NOP and see if they include the obvious SW impacts –we are seeing them even now. If you are too swamped, let me know.**

MM and LL, it is there for your reading as well.

CGH

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**From:** Lazar, Steve
**Sent:** Friday, April 28, 2017 12:03 PM
**To:** Hawkins, Carolyn <CHawkins@co.humboldt.ca.us>
**Subject:** Re: Question on written comment deadline

Hi Carloyn-

The written comment deadline is in fact 5/9. Comments can be emailed directly to me if that helps.

-Steve

---

**From:** Hawkins, Carolyn
**Sent:** Friday, April 28, 2017 11:35:36 AM
**To:** Lazar, Steve
**Cc:** Martel, Melissa
**Subject:** Question on written comment deadline

Hi Steve,

I see scoping meeting set for May 12th, and that deadline for written comments is May 9th. I don't have much experience with CEQA, just wanted to make sure that the May 9th written comment deadline is correct.

**Notice of Scoping Meeting for Cannabis Environmental Impact Report**

**DATE: May 12, 2017**

**TIME: 2:00pm to 5:00pm**

**LOCATION: Sequoia Conference Center**

More information about the NOP and the EIR is available on the County's website at the following link:

http://www.humboldtgov.org/2308/Cannabis-EIR

Local cities and counties, interested agencies, and the public are all invited to attend the scoping meeting and are encouraged to provide meaningful responses as to the scope and content of the EIR; as well as comments and suggestions regarding the preparation of the EIR, environmental issues and alternatives to be addressed in the EIR, and any other related issues.

Written comments should be submitted or postmarked no later than **5:00 p.m. on Monday, May 9, 2017**. Please indicate a contact person in your response and send your comments to:

slazar@co.humboldt.ca.us; or

Steve Lazar

Humboldt County Planning & Building Department

Carolyn G. Hawkins, REHS
Supervisor - Land Use/Solid Waste LEA programs
DHHS Public Health, Division of Environmental Health
100 H St., Ste 100
Eureka CA 95501
707-268-2215 phone
707-441-5699 fax

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To: Steve Lazar
Humboldt County Planning and Building Department
Eureka, CA.

RECEIVED
APR 2 4 2017
Humboldt County
Planning Division

Mr. Lazar,

We have read the Notice of Preparation for the EIR report regarding commercial cannabis grows and would like to comment on some of the key environmental and social issues of the report.

We live within the city limits of Fortuna on Angel Heights Drive. The county line is approximately 100 ft. from our home. Some of our neighbors, on our dead end street, are in the county and not in the city limits. Sitting on the edge of the county line, our concern is that any one of the county dwelling neighbors could apply for a permit to establish a cannabis grow. We see this happening in other neighborhoods in Fortuna that are situated like ours and it is disturbing.

I walk on Newburg Road weekly and was shocked to see and learn that a permitted grow was being established where it is surrounded by houses that are within the city limits. Yes, the land is in the county but the neighborhood surrounding it is in the city. Do you see the possible problems that can arise from this?

Cannabis is a business and like any business it will bring an increase of traffic both cars and workers into a residential area. It will also create noise, smell, possible water contamination, and affect birds and mammals from exposure to hazardous materials. It is a big business and as such, it does not belong in or next to a residential area regardless of the county/city lines.

It is not a question of 'not in my backyard' it is a question of is it logical, environmentally sound and considerate of all parties involved. Are the possible effects to the future being considered?

Thank you,

Francene and Jim Rizza

1136 Angel Heights Dr.
Fortuna, CA 95540

**From:** Nancy Roberts
**To:** Lazar, Steve
**Subject:** Cannabis EIR and Code Amendments
**Date:** Wednesday, April 26, 2017 2:55:37 PM

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Dear Mr Lazar,

I am a lifetime resident of Humboldt County. I am very concerned about the direction that the cannabis industry may be taking and the threat to
the beauty and safety of our rural area.

First, let me say that I completely support the legalization of cannabis. It is time that this important product be made available to all who want
or need it. I realize that there is a long way to go in the legalization process and how it is integrated into our communities.

I have specific concern for the cultivation of this crop within the county. It should not be allowed in areas where rural families are located or at least not in close proximity to existing homes. Adequate water should be available with protection of creeks and streams. Provision needs to be made for
waste disposal. Near by residents should not be exposed to odors from grows, noise from generators and visual pollution of large poly tarp structures.

I hope that these issues will be addressed as the planning commission proceeds with the processing of permits, and writing of new regulations so that we can be in harmony with growers and Humboldt county residents can be protected.

Thank you,

Nancy Roberts
Ferndale

Steve Lazar,

RECEIVED
APR 27 2017
Humboldt County
Planning Division

I am writing to you with my concerns of cannabis being grown on Nob Hill in Fortuna, or any other neighborhood for that matter. I have lived here for 45 yrs. in this peaceful and beautiful place. And now things are beginning to change. There is one large grow area in a field at the end of the road. It is set up and ready to start as soon as the go ahead is given. There is another grow in a house on the corner next to me, in which the smell at times is disturbing. At times, I hear the hum of increased electricity being used. It has been cured for the increase. We should not be subject to the offensive smell of cannabis in our neighborhoods.

Nob Hill Rd is a Collector Road, so added traffic to these already deteriorating roads would be disastrous for the city. The road in front of my house has a

bump in it due to the city working on waterlines every 50 many feet. They have tried to fix this problem but it still exists. The city will be putting out more money for road repairs if grows are allowed in the open spaces on Nob Hill.

At this time, there are several large fields in the area, that if the price was right, the owners could succome to the dollar and grows would be put in. Growers pay big bucks for property, as you know. There are many other places where growers could be, such as the eel river valley and the hills. They need ~~Stricted~~ strict regulation in these areas too.

There needs to be regulations and thought put into how many feet from already existing houses. We should not be subject to the smells of grows. Cannabis grows often attract crime and bring into

our neighborhoods those that could be problematic.

The pollution of water and the chemicals that are involved would be disasterous to our land and neighborhoods.

If the city allows these groups to come in to our neighborhoods, there will be increased crime for the police dept., polluted water for the city to deal with, increased road repairs for the city, constant complaints to deal with from those in the neighborhood that are used to living in a clean, friendly, and safe place. And last but not least there will be an increase in business by the Fortuna Mortuary. They probably won't mind, but families will!

Sincerely Concerned
Jose Hoxas

I am talking about increase of crime and fatalities that go along with it.

May 10, 2017

Steven Lazar
Humboldt County Planning and Building Department
3015 H Street
Eureka, CA 95501
slazar@co.humboldt.ca.us

**SUBJECT:** Comments on Notice of Preparation for Amendments to Humboldt County Code Regulating Commercial Cannabis Activities

Dear Mr. Lazar,

Thank you for the opportunity to comment on the Humboldt County Cannabis Environmental Impact Report (EIR) project (the Project). The North Coast Regional Water Quality Control Board (Regional Water Board) is a responsible agency for this project, with jurisdiction over the quality of ground and surface waters (including wetlands) and the protection of beneficial uses of those waters. Enclosed are primary topics that the Regional Water Board offers for consideration in the development of the Project.

**Water Boards Cannabis Cultivation Water Quality Regulatory Programs**

On August 13, 2015, the Regional Water Board adopted a regulatory order to address waste discharges from cannabis and other similar operations: Order No. R1-2015-0023 *General Waiver of Waste Discharge Requirements and General Water Quality Certification and Monitoring and Reporting Program for Discharges of Waste Resulting from Cannabis Cultivation and Associated Activities or Operations with Similar Environmental Effects in the North Coast Region* (the Order). The Order establishes water resource protection requirements, provides a mechanism for water quality compliance, and enables the Regional Water Board to better focus its enforcement resources on environmentally damaging operations. The Order was the first of its kind in the State. Since then, cannabis-related regulatory requirements continue to evolve for state-wide application.

On June 27, 2016, Governor Edmund G. Brown Jr. signed Senate Bill (SB) 837, which requires the State Water Resources Control Board (State Water Board), in consultation with the California Department of Fish and Wildlife (CDFW), to adopt interim and long-term principles and guidelines (requirements) for the diversion and use of water for cannabis cultivation in areas where cannabis cultivation may have the potential to substantially affect instream flows. Principles and guidelines will be incorporated into licenses issued by the California Department of Food and Agriculture under its CalCannabis Cultivation Licensing, and water right registrations will be issued under the State Water Board's Small Irrigation Use Registration Program, once available.

Presently, the State Water Board is developing a state-wide general order to regulate waste discharges from cannabis cultivation activities in a manner protective of water quality. Depending on the structure and requirements of that state-wide general order, the water quality regulatory requirements for cultivators in Humboldt County, and the rest of the north coast, may be modified compared to the Regional Water Board's Order R1-2015-0023. These changes may influence the Project as it develops and we encourage Humboldt County to stay apprised of the regulatory changes. The State Water Board cannabis cultivation regulatory programs webpage is:
http://www.waterboards.ca.gov/water_issues/programs/cannabis/index.shtml

**Existing Cumulative Impacts**

The documented impairment by sediment of the majority of the area of Humboldt County and the North Coast Region is evidence that the implementation of existing programs used for the control of anthropogenic sediment waste discharges has not been adequate to protect, remediate, restore, and enhance sediment-impaired water bodies and to control the cumulative impacts of sediment waste discharges on such watersheds.

Excess sediment is defined as soil, rock, and/or sediments (e.g., sand, silt, or clay) from human related activities that is discharged to waters of the state in an amount that could be deleterious to beneficial uses or cause a nuisance. Some of the most sensitive beneficial uses to high sediment loads are associated with the migration, spawning, reproduction, and early development of cold water fish such as coho salmon, Chinook salmon, and steelhead trout. Besides harming aquatic life, excess sediment can limit the use of water for domestic consumption, agriculture, industry, wildlife, fishing, and recreation, and can cause or contribute to flooding. Excess sediment can also result in the exceedance of water quality objectives for suspended material, settleable material, sediment, and turbidity.

Numerous waterbodies and their tributaries in Humboldt County are already cumulatively impacted by excessive sediment and are listed as impaired under Clean Water Act §303(d). A sediment impaired water body is one that does not meet sediment-related water quality objectives or does not support beneficial uses because of too much sediment.

The Total Maximum Daily Load Implementation Policy Statement for Sediment Impaired Receiving Waters in the North Coast Region (Resolution R1-2004-0087), (the Sediment TMDL Implementation Policy) recognizes the immediate need for the prevention and control of sediment waste discharges in 303(d) listed waterbodies in the north coast and, in part, directs Regional Water Board staff to work with local governments and non-profit organizations to develop sediment prevention, reduction, and mitigation strategies, including, but not limited to, grading ordinances and road management policies as well as enhance non-regulatory actions with organizations and individuals to encourage sediment waste discharge control, watershed restoration, and protection activities.

The strategy for implementing the intrastate and interstate water quality objectives for temperature in the North Coast Region is set forth in the Policy Statement for Implementation of the Water Quality Objective for Temperature in the North Coast Region. The Regional Water Board shall address sources of elevated water temperature region-wide but on a case-by-case basis in the context of a given permit or other action as appropriate and necessary to reduce impairments and prevent further impairment. The water quality objectives for temperature shall be implemented through a combination of riparian management and other temperature controls as appropriate in nonpoint source control programs; permits and waivers, grants and loans, and enforcement actions; support of restoration projects; and coordination with other agencies with jurisdiction over controllable factors that influence water temperature. Controllable water quality factors affecting water temperature include, but are not limited to, any anthropogenic activity which results in the removal of riparian vegetation that provides shade to a waterbody, sediment discharges, impoundments and other channel alterations, the reduction of instream summer flows, and the reduction of cold water sources.

Individual stream and wetland systems are part of complete aquatic ecosystems through interaction of surface and subsurface hydrologic connections, healthy systems perform functions that protect and enhance watershed-wide water quality. In addition, surface waters provide habitat that supports a variety of plant and animal life for rare and endemic species. Riparian areas between streams and wetlands and their adjoining environments play critical roles in protecting and enhancing water quality. The removal of vegetation that provides shade to a waterbody is a controllable water quality factor. An important tool for reducing and avoiding impacts to surface waters is the implementation of a buffer area of native and riparian vegetation between any construction activities or structures and surface waters.

We strongly encourage Humboldt County, and/or any local regulatory body responsible for developing and/or implementing land use ordinances associated with cannabis cultivation to include provisions to identify, assess, and mitigate cumulative adverse environmental impacts associated with existing cultivation activities and to ensure that ongoing and/or future cultivation activities do not exceed watershed carrying capacities or create or exacerbate cumulative adverse impacts in combination with other past, present, and foreseeable future land and water uses.

Without a comprehensive strategy to prevent and minimize new sources and control of existing sources, sediment and temperature-related cumulative impacts will continue to worsen. To be adequate, the Project needs to consider entire properties for potential control measures to avoid and minimize impacts associated with sediment and temperature.

**Shared Use Roads**

Shared use roads are among the most significant sources of chronic sediment discharges to surface waters across populated rural landscapes. These roads were often built initially for timber harvesting activities and are not located or built in accordance with contemporary standards or uses. It is important to ensure adequate maintenance and retrofitting of these roads to control and prevent both chronic and episodic sediment delivery to streams, especially at crossings and unstable features. Road associations, whether they are legal organizations or based on informal agreements, are critical to ensure that adequate and equitable resources are invested in shared road systems. Private roads that cross multiple parcels are the responsibility of the landowners.

The EIR project needs to identify that existing shared use road systems are sources of sediment to surface waters, can be worsened by increased usage and timing of usage associated with access to individual parcels used for cannabis and associated activities. Mitigations could include the requirement for a road association and sediment control plan for the roads, including off-property private and county road networks.

The recent winter demonstrated that the county road network is among the larger contributors of sediment to the stream network in Humboldt County waterbodies. Presently, it appears that the Humboldt County roads department does not have adequate funding to upgrade and maintain its road network in a manner that is protective of water quality.

The EIR needs to define a clear strategy to address sediment discharges from private, shared-use roads and the county road network on a timeframe and at locations that are in-sync with cannabis permitting. Such a strategy needs to follow the sequential process of avoid/minimize for new sources, and inventory/prioritize/treat/monitor for existing sources.

**Enforcement**

Timely and consistent enforcement is critical to the success of a regulatory program. A good enforcement program relies on well-developed compliance monitoring systems designed to identify and correct violations, help establish an enforcement presence, collect evidence needed to support enforcement actions where there are identified violations, and help target and rank enforcement priorities. Compliance assistance is necessary, especially in a new regulatory program. There is a point, however, at which this cooperative

approach should make way for a more forceful approach. Without a strong enforcement program to back up the compliance assistance, the entire regulatory framework would be in jeopardy. Enforcement is a critical ingredient in creating the deterrence needed to encourage the regulated community to anticipate, identify, and correct violations. Appropriate penalties and other consequences for violations offer some assurance of equity between those who choose to comply with requirements and those who violate them. It also improves public confidence when government is ready, willing, and able to back up its requirements with action.

Without adequate enforcement, there is no guarantee the program will be effective. The EIR needs to address the level of enforcement necessary to ensure that that the participants are in compliance, and that those not participating are brought into compliance.

**Cumulative Impacts to Hydrology and Groundwater**

Due to cumulative impacts to surface water flows associated with summertime diversions and other stream impacts, requirements are in-place for developing off-stream storage and forbearance strategies. While these moves support a more sustainable surface water usage strategy, the requirements have resulted in significant increases in the installation of both permitted and unpermitted wells.

The Regional Water Board has received significant complaints from neighbors concerned with groundwater draw-down associated with increased groundwater extraction for large-scale cannabis cultivation. Presently, there are no state-requirements on groundwater use that could ensure that adjacent water supplies are protected or even monitored.

If the Project allows groundwater sources to be used to support cannabis cultivation, processing, or manufacturing and associated activities, then impacts to groundwater levels need to be identified and mitigated. This will require a robust monitoring and reporting program, similar to that of surface water, timely identification of potential impacts, and adaptive management to improve the strategy.

**Watershed Coordination**

In addition to regulatory tools, non-regulatory watershed coordination can contribute to improved watershed stewardship. We recommend that Humboldt County build capacity for watershed groups and road associations to monitor and report watershed conditions and coordinate on a watershed scale, and provide technical assistance and organizational models to assist citizens to coordinate effectively on shared resource protection issues, including but not limited to road maintenance, water diversions, and habitat protection and enhancement. This will also promote opportunities for grant funding to assist in water resource protection.

**Regional Water Board contacts**

Regional Water Board staff would be pleased to work with Humboldt County in the development of the Project. Through a combination of effective regulation and strong partnerships, we can achieve healthy watersheds in Humboldt County and the north coast. We appreciate the opportunity to provide these comments and look forward to ongoing coordination. Staff continues to be available to work on these issues. Questions or comments can be addressed to Adona White at 707-576-2672 and Adona.White@waterboards.ca.gov or myself at 707-576-2682 and Kason.Grady@waterboards.ca.gov.

Sincerely,

Digitally signed by
Kason Grady
Date: 2017.05.10
10:35:16 -07'00'

Water Boards

Kason Grady
Senior Water Resource Control Engineer
Cannabis Regulatory Program
North Coast Regional Water Quality Control Board

170510_ACW_er_HumCo NOP Comment Letter Revised

| | |
|---|---|
| **From:** | Richardson, Michael |
| **To:** | Lazar, Steve |
| **Cc:** | galen@sanctuaryforest.org |
| **Subject:** | FW: Mitigation Measures for Environmental Impacts of Cannabis Cultivation |
| **Date:** | Friday, May 12, 2017 9:55:25 AM |
| **Attachments:** | Project Description - Partners - Reduced.pdf |

Hi Steve,

Here's an EIR scope/content comment letter for our consideration…

- Michael R.
(707) 268-3723
mrichardson@co.humboldt.ca.us

**From:** Galen Doherty [mailto:galen@sanctuaryforest.org]
**Sent:** Friday, May 12, 2017 8:31 AM
**To:** Richardson, Michael
**Cc:** Fennell, Estelle; April Newlander
**Subject:** Mitigation Measures for Environmental Impacts of Cannabis Cultivation

Hi Michael,

It was good talking with you last night at the Safe Homes initiative meeting.

As we discussed last night, Sanctuary Forest is engaged in a high priority land conservation campaign to permanently protect the entire Van Arken Creek watershed, the third largest sub-basin in the Mattole headwaters, a salmon stronghold completely free from residential development. Conservation of this watershed is vital for our ongoing efforts to restore salmon stocks, forest health, and climate resiliency in the Mattole Watershed. These lands are under imminent threat of another round of industrial timber harvest, following which they are threatened by fragmentation and development. Indeed, Boyle Forests (the landowner, i.e. the Barnum Family) has gone through the process of obtaining COC's and a JTMP allowing them to sell these off in 40 acre parcel sizes.

I am reaching out to you because in conducting the Environmental Impact Report for cannabis cultivation I would like the County to consider the use of mitigation measures to offset the impacts that cannabis farms are having on the surrounding environment. Two key concepts which you may be familiar with are Mitigation and Conservation Banking (described briefly below).

**Mitigation banking** is the preservation, enhancement, restoration or creation (PERC) of a wetland, stream, or habitat conservation area which offsets, or compensates for, expected adverse impacts to similar nearby ecosystems.

**Conservation banks** are permanently protected lands that contain natural resource values. These lands are conserved and permanently managed for species that are endangered, threatened, candidates for listing as endangered or threatened, or are otherwise species-at-risk

The Van Arken Watershed Conservation Project (Project Description with fundraising

strategy, maps, and letters of support from BLM, CDFW, and NOAA Fisheries is attached) is the perfect opportunity to utilize mitigation requirements to fund land conservation in Southern Humboldt conserving land in the same watershed as many of these impacts are occurring. This is becoming common practice in many areas throughout the state, for instance the Willits Bypass EIR required mitigation measures that included the restoration and/or preservation of similar habitat as was being destroyed by the project.

I hope that you can bring this up at today's scoping meeting regarding the county EIR for cannabis. I would be interested to know if there is a way to incorporate mitigation requirements into the current permitting system as well (covered under the Mitigated Negative Declaration), for instance existing cultivators with large impacts could be directed to pay hefty fines and rehab the site OR pay into the mitigation program directly offsetting their impacts by permanently protecting similar land nearby.

Please let me know if you have any questions.

Thanks and Regards,

Galen Doherty

--

Galen C. Doherty
Lands Program Director
Sanctuary Forest, Inc.
(707) 986.1087 x. 3#
(707) 599.8913
galen@sanctuaryforest.org
*What better way to protect the land than by leaving a lasting legacy?*

**Sanctuary Forest**

# Van Arken Watershed Conservation Project

## INTRODUCTION

30 years ago, a small group of Mattole valley residents came together and vowed to protect what remained of the old growth forests in the watershed. Today, almost a third of these lands are in conservation status; with Sanctuary Forest acting as the steward for over 10,000 acres of forestland in the Mattole and surrounding areas through trusteeship of 14 conservations easements, fee-title ownership, and cooperative stewardship agreements with public and private partners from across the board (See Upper Mattole River and Forest Cooperative Map). Yet even after three decades of cooperative grassroots work to conserve vital forestlands and restore the wild runs of salmon, their continued survival is far from assured as the threat of human impacts grows.

Our community is faced with the threat of timber harvest, subdivision, and development in some of the last intact tributaries to the Mattole River Headwaters. These forests are all that remain of over 5,000 acres of industrial timberland in the Mattole headwaters. Since the early 2000's over 2500 acres have been subdivided and sold into rural residential development. This fragmentation has resulted in a host of new land-use impacts that have severely degraded key salmon bearing tributaries, halting and in some cases reversing decades of recovery efforts. Now, if not conserved, the last of these lands face the same fate.

## PROJECT DESCRIPTION

This project seeks to conserve the entire Van Arken Creek Watershed and the neighboring headwaters of McKee, Green, and Ravashoni Creek(s) through direct fee-title acquisition of the property from the current owner, Boyle Forests LP. Specifically, this conservation action will protect over 1,600 acres of forestland and a combined ~5.8 miles of salmon spawning and rearing habitat (see project map). This project will expand key fish and wildlife habitat in the Upper Mattole River and Forest Cooperative (UMRFC), permanently prevent impacts of industrial timber harvest, forest fragmentation, and development. Viewed in the context of the past three decades of conservation efforts—the RFFI Usal Community Forest, Sinkyone Wilderness State Park, and the King Range National Conservation Area—this is conservation at the landscape scale.

Our goal is create a community forest resulting in a patchwork of old growth forest and wildlife reserves and working forestlands providing invaluable ecosystem services, as well as a source of economic growth for the local community. As owner and steward of the property, Sanctuary Forest will work with our traditional partners (BLM, CDFW, WCB, NOAA Fisheries Mattole Salmon Group, Mattole Restoration Council, and more), local community, and interested universities to implement projects and offer educational and recreational opportunities.

## THREATS

If we cannot buy these lands, they will undergo the devastating effects of a regressive timber harvest utilizing clear-cutting and herbicides to convert the last of the mixed hardwood forests to monoculture conifer plantations. Following which, they will be subject to subdivision and development of over 28 separate legal parcels. This fragmentation, primarily for the purpose of large scale black market cannabis cultivation, will lead to many negative land-use impacts including road building, forest clearing, stream dewatering, and the potential introduction of harmful pesticides and rodenticides to the food web.

## CONSERVATION VALUES:

This landscape is home to a diverse array of forest types: coastal redwood, pacific yew, dogwood, big leaf maple, ash, and alder along the riparian zones; decadent old growth Douglas fir interspersed with ancient madrone, live oak, and true oaks along the valley floor; and sections of virgin tan oak, chinquapin, and madrone forest on the upslope and ridgetop areas.

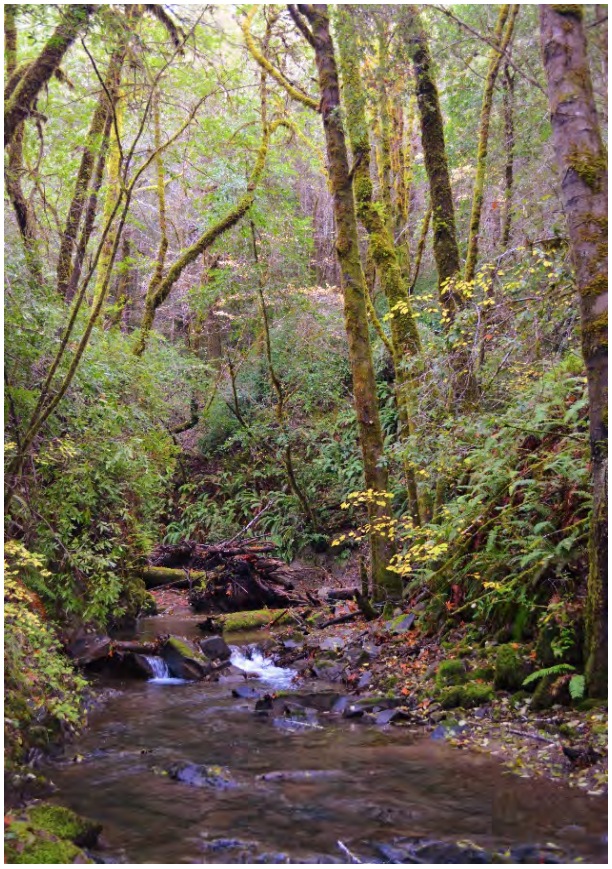
This project will prevent the loss of key intact or recovering forest, meadow, and riparian habitat and help ensure the survival of such rare, threatened, or endangered species as northern spotted owl, goshawk, tailed frogs, pacific giant and southern torrent salamanders, as well as coho, chinook, and steelhead and thousands of common species that inhabit this unique coastal redwood and mixed forest ecosystem. Additionally, wider ranging land species such as mountain lion, and black bear, whose habitat has been severely reduced by logging and development in surrounding areas, would be protected from the threat of regional extirpation.

## FISHERIES

Both Van Arken and McKee Creek have been identified as Priority 1 tributaries for coho recovery (Mattole Coho Recovery Strategy, MRRP, 2011) and have been given a high IP (intrinsic potential) value in NOAA's 2014 SONCC. Historically these streams have supported abundant native runs of coho, Chinook, and steelhead populations, and just this year over 15 adult Chinook salmon were seen spawning in Van Arken Creek. Recent field tours with top fisheries biologists with NOAA Fisheries, CDFW, and BLM verified these historic reports (see letters of support) concluding that these tributaries have enormous potential for fisheries restoration and could be key to the recovery of wild Mattole Salmon populations.

Already Sanctuary Forest and our partners have done considerable restoration work on McKee Creek downstream of the acquisition property. To date all landowners on the mainstem of McKee Creek have become participants in Sanctuary Forest's Storage and Forbearance Program, whereby they agree to stop pumping from the creek during the dry season in exchange for adequate water storage. In addition, Sanctuary Forest has secured grant funding from CDFW Fisheries Restoration Grant Program to implement a coho habitat restoration and streamflow enhancement project in the lower reaches of McKee Creek. The combination of turning off all dry-season diversions, and restoring habitat and streamflow in McKee Creek has been an essential first step towards the recovery of this tributary.

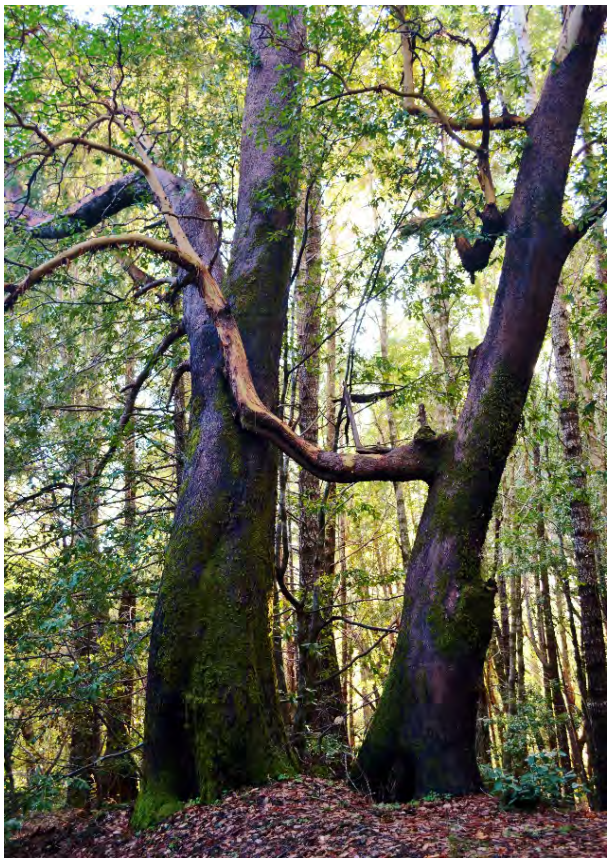
Van Arken Creek has suffered significant degradation as a result of industrial timber harvest over the last 75+ years. However, as it is completely free form human development it has an incredible potential to be restored. Already much work has been done in this watershed by our sister organization, the Mattole Restoration Council (MRC). In 2005, the MRC implemented a basin-wide sediment reduction project in Van Arken that treated the entire road network; decommissioned many roads, and upgraded stream crossings on those that remained.



Following the conservation of these properties, the restoration of salmon spawning and rearing habitat and the implementation of innovative groundwater recharge projects will be one of our primary stewardship goals. Rough analyses of the Van Arken watershed indicates the potential to capture and store millions of gallons of rainwater during the wet season. In combination, all of these actions will result in an array of benefits from increased groundwater recharge and storage and enhanced instream flows to improved floodplain connectivity, and restored spawning and rearing habitat for endangered coho salmon and threatened chinook and steelhead.

**FORESTS**

Stewardship of the forestland on the property will focus on the immediate goals of reducing fuel loads and the risk of wildfire. Through active engagement with our local community it is our goal to develop a holistic forest management plan designed to improve forest health, accelerate the return to late seral conditions, increase carbon retention and sequestration, and provide a source of revenue to be reinvested in the stewardship of the property. Certain areas of the property that possess rare or unique forest types will be protected from wildfire and set aside to become the next generation of old-growth forests. The dense plantations of redwood and Doug fir will become part of a sustainable harvest regime that will result in the retention of the largest trees and thinning of the least valuable trees. Additionally, large sections of the property that are predominantly forested with overly dense stands of tanoak will provide a source of high quality hardwood for the local Whitethorn Construction Hardwood Mill. Overtime these forests will grow to resemble the historic old growth conditions of the Mattole River headwaters, acting as a buffer against the effects of climate change, providing a sanctuary for fish and wildlife, and an open place for people to come for learning and recreational opportunities.



**CONSERVATION STRATEGY**

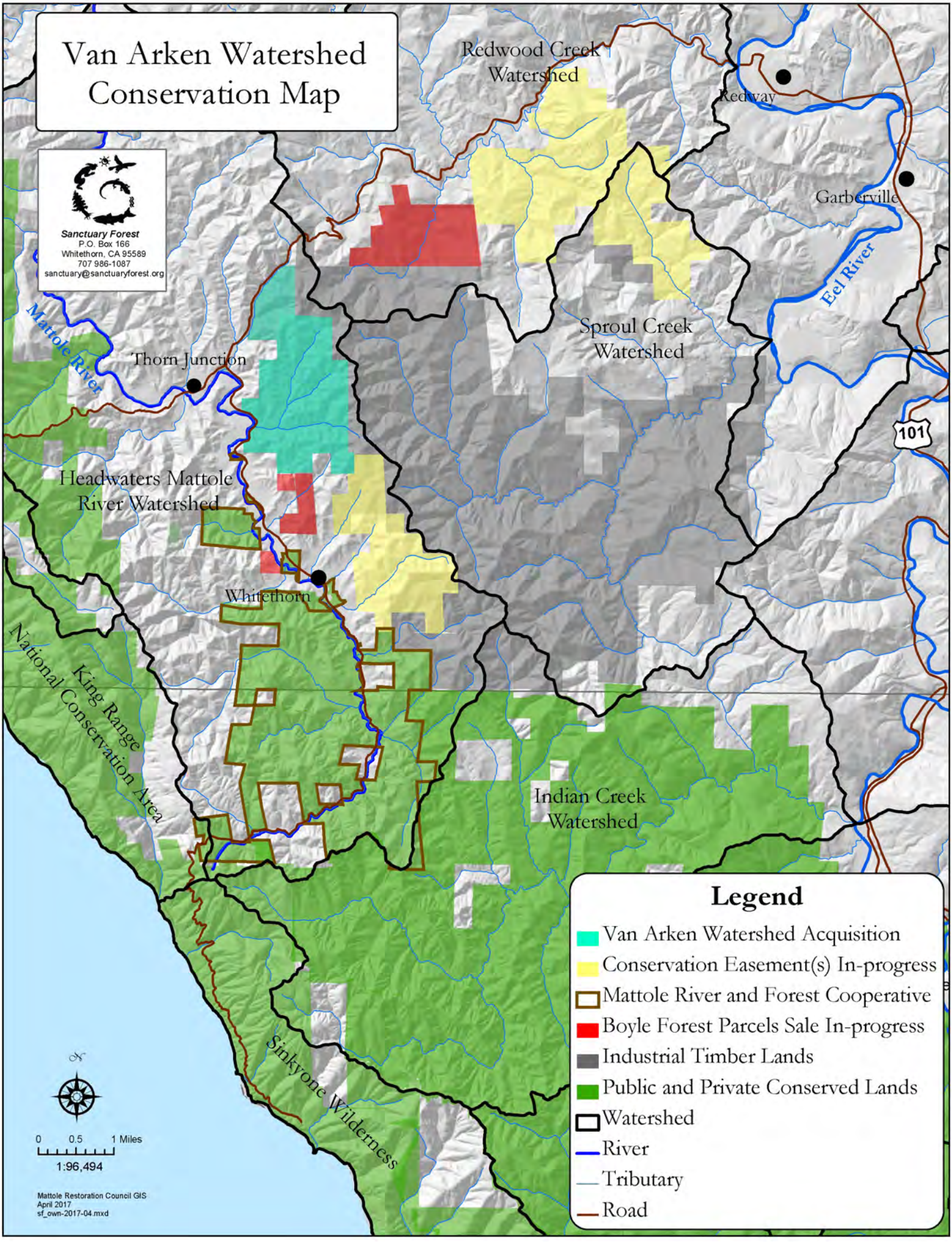
Sanctuary Forest is currently engaged in a campaign to save these lands through collaboration with regional conservation organizations, and funding from a combination of state and

federal agencies, foundations, and major donors from our local community, the greater California area, throughout the United States, and across the world (See Funding Chart and Project Budget).

Currently, negotiations with the landowner, Boyle Forests LP., have concluded with a 6-month window within which to purchase the properties; the value of which is a little over 9 million dollars (based on a restricted appraisal dated 6.8.16 by Chris Bell, MIA, to be reappraised spring 2017). Based on this timeline we have developed a two-phase strategy: Phase 1 consists of securing a bridge-funding organization to purchase the property by June 31st, 2017 and enter into a 5-year reimbursement agreement with Sanctuary Forest; Phase 2 consists of securing funding for reimbursement of the bridge funder in exchange for ownership of the property.

In the last two months of 2016 we successfully raised over $100,000 towards the conservation of these lands from our local community and have funding pending from the Grace Us Foundation, an application in with Firedoll and Weeden Foundations, and an application in with the Wildlife Conservation Board Prop 1. The enormous outpouring of support from our local community is thanks in part to the many community meetings we have held on various tributaries throughout the Mattole, local fundraisers, and many small donations as well as several "Fund an Acre" donors who have stepped up and funded an entire acre ($5,500).

*The following Funding Chart and 5 Year Funding Strategy outline how this ambitious project can be completed.*


Van Arken Watershed Conservation Map
Sanctuary Forest
P.O. Box 166
Whitethorn, CA 95589
707 986-1087
sanctuary@sanctuaryforest.org
Redwood Creek Watershed
Redway
Garberville
Eel River
Mattole River
Thorn Junction
Sproul Creek Watershed
101
Headwaters Mattole River Watershed
Whitethorn
King Range National Conservation Area
Indian Creek Watershed
Sinkyone Wilderness
0 0.5 1 Miles
1:96,494
Mattole Restoration Council GIS
April 2017
sf_own-2017-04.mxd
Legend
Van Arken Watershed Acquisition
Conservation Easement(s) In-progress
Mattole River and Forest Cooperative
Boyle Forest Parcels Sale In-progress
Industrial Timber Lands
Public and Private Conserved Lands
Watershed
River
Tributary
Road

# Project Funding Plan

**PHASE 1:**
Secure a bridge-funder to purchase the property (valued at $9 million) by June 31st, 2017.

**PHASE 2:**
Using a variety of public grants, foundations, and private donations, obtain funding for full reimbursement of the bridge-funder over 5 years in exchange for ownership of the property.

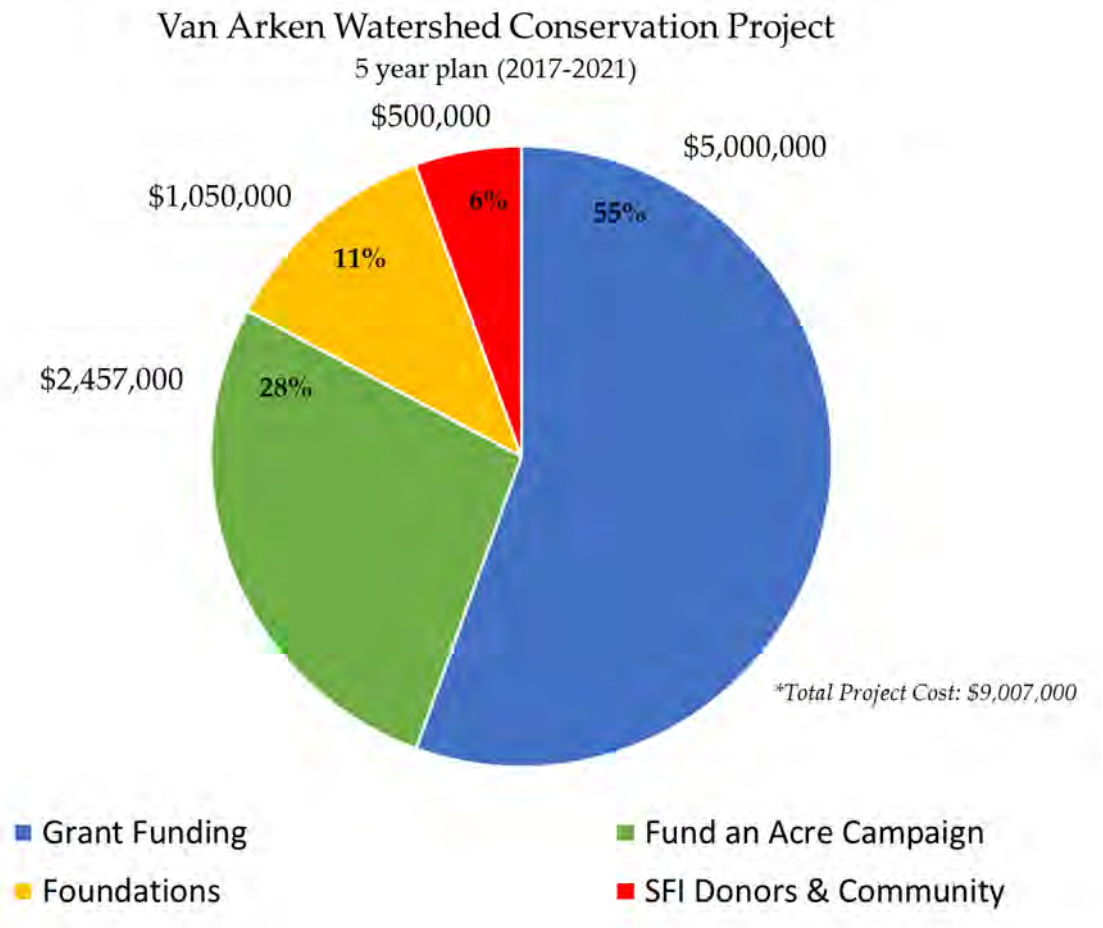
*In 2016, Sanctuary Forest exceeded our goal of raising $100,000.*

*Going forward, our goal is to raise $100,000/year from our local community and $495,000/year through our Fund An Acre Campaign over the next five years to support the conservation of the Van Arken Creek watershed.*

**Amount raised from SFI Donors & Community: $63,182.92**

**Amount donated/pledged from our Fund An Acre Family*: $127,083.08**

**donated and pledged as of 3/2/17*




***This capital campaign will demonstrate local grassroots community support and help to secure significant contributions from a combination of state and federal agencies, foundations, and major donors from the greater California area, throughout the United States, and across the world.***

| VAN ARKEN WATERSHED CONSERVATION PROJECT | | | | |
|---|---|---|---|---|
| **Fee Title Acquisition** | **Avg. Price Per Acre** | **Total Acreage** | **Total** | **Comments** |
| **Van Arken Creek Watershed Property** | $5,800 | 1,350 | **$7,830,000** | Based on restricted appriasal by Chris Bell, MIA dated 6-8-2016. |
| **McKee Creek Headwaters Property** | $3,929.77 | 299 | **$1,175,000** | Based on restricted appriasal by Chris Bell, MIA dated 6-8-2016. |
| **Total Project Cost** | $5,460.89 | 1,649 | **$9,005,000** | Final value pending further appraisals in spring 2017. |

| **5 YEAR FUNDING STRATEGY** | **Total** | **Comments** |
|---|---|---|
| **Bridge Funder** | **$9,005,000** | **Amount to be reimbursed over a period of 5 years (2017-2021)** |
| Wildlife Conservation Board Prop 1 | $0 - $1,500,000 | SFI is working on policy changes with WCB to allow for a broader interpretation of their mandate that would enable more freedom for funding of acquisition projects. |
| Wildlife Conservation Board Forest Conservation Fund | $500,000 | Good match. WCB indicated if SFI able to secure support from other funding sourcs they would be interested. (If not interested, could be subbed for SCC Prop1) |
| Ca. Dep. Of Fish & Wildlife: Prop 1 | $3,500,000 | Good match, 6.4 million awarded in 2016 to local range and forestland conservation projects. |
| Cal Fire Greenhouse Gas Reduction Fund | $500,000 | Good match, but highly competitive. Carbon Project may be more feasible, with higher pay off. |
| Environmental Enhancement & Mitigation | $500,000 | Good match, $500,000 awarded in 2016 to local working forestland conservation project. |
| **Sub Total (State & Federal Grant Programs):** | **$5,000,000** | |
| National Fish & Wildlife Foundation - Acres for America | $500,000 | Highly competitive, good match, $350,000 awarded in 2014. |
| National Fish & Wildlife Foundation - Resilient Communities | $250,000 | Grant application submitted March 30, 2017. |
| Weeden Foundation (Amount Requested over 5 years) | $75,000 | $15,000 awarded in March 2017. |
| Firedoll Foundation (Amount Requested over 5 years) | $75,000 | Application submitted for $15,000 in January of 2017. |
| Grace Us Foundation (Amount Requested over 5 years) | $50,000 | 10,000 awarded in Jan. 2017 |
| Bella Vista Foundation (Amount Requested over 5 years) | $100,000 | Good fit, awarded $20,000 for project development in 2015/16. |
| SFI donors and local community (Over 5 years) | $500,000 | $100,000 raised in 2016. |
| Van Arken Fund an Acre Campaign (Over 5 years) | $2,457,000 | 450 regional, national,and international donors @ $5,460 (over 5 years). |
| **Sub Total (Donors & Foundations):** | **$4,007,000** | |
| **Grand Total** | **$9,007,000** | |

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Region 1 – Northern
601 Locust Street
Redding, CA 96001
www.wildlife.ca.gov

***EDMUND G. BROWN JR., Governor***
***CHARLTON H. BONHAM, Director***

February 7, 2017

Galen C. Doherty
Lands Program Director
Sanctuary Forest Inc.
P.O. Box 166
Whitethorn, CA 95589

**Subject: Letter of Support for Van Arken Watershed Conservation Project**

Dear Mr. Doherty:

The California Department of Fish and Wildlife (Department) supports the benefit to salmonid habitat achieved by the proposed Van Arken Watershed Conservation Project, located in the Mattole River headwaters, Humboldt County, California. Tributaries of the Mattole River headwaters provide significant spawning and rearing habitat for California Endangered Species Act listed Coho Salmon, Chinook Salmon, and steelhead. The project's acquisition of 1300 acres of pristine or recovering forestland will result in conservation of the entire Van Arken Creek watershed and the headwaters of neighboring Green and Ravashoni creeks. Additionally, the project contributes to Mattole tributaries conserved in the adjacent 5,500-acre old-growth redwood forest and salmon refuge known as Upper Mattole River and Forest Cooperative.

Van Arken Creek is the third largest tributary to the Mattole headwaters. The stream is free from human diversions, provides three miles of low gradient cold water salmon habitat, and is vital to current efforts to restore salmon populations in the Mattole River watershed. Van Arken Creek has been identified as a Priority 1 tributary in the Mattole Coho Recovery Plan, and has high intrinsic potential for the recovery of Coho Salmon (MRRP, 2011 & SONCC, 2014).

The current Van Arken property owner has an expressed interest in selling to a conservation interest but will also sell on the open market if a conservation project cannot be developed. If sold on the open market, the property is eligible for subdivision to 25 legal parcels, and this type of development on similar regional properties has resulted in extensive road-building, home-site clearing, cannabis cultivation site clearing, and water diversion. Subdivision development of this type has negatively affected salmonid habitat with increased sediment delivery to streams, loss of riparian forest shade canopy, increased water temperatures, and diminished dry season streamflow.

Please contact Senior Environmental Scientist (Supervisor) Allan Renger at (707) 725-7194, or Senior Environmental Scientist (Supervisor) Scott Bauer at (707) 441-2011, regarding the Department's support for the Van Arken Watershed Conservation Project.

Sincerely,

**Neil Manji**
Regional Manager

ec: Galen C. Doherty
Sanctuary Forest Inc.
galen@sanctuaryforest.org

Allan Renger, Scott Bauer
California Department of Fish and Wildlife
allan.renger@wildlife.ca.gov, scott.bauer@wildlife.ca.gov

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
1655 Heindon Road
Arcata, California 95521-4573

Refer to NMFS No: 10012WCR2017AR00011

Galen C. Doherty, Lands Program Director
Sanctuary Forest Inc.
P.O. Box 166
Whitethorn, CA 95589

JAN 04 2017

Dear Mr. Doherty,

On behalf of NOAA's National Marine Fisheries Service (NMFS), I would like to express our strong support for the Van Arken Watershed Conservation Project located in the Mattole River headwaters, Humboldt County, CA. The Mattole River headwaters are among the key spawning and rearing grounds for Endangered Species Act (ESA)-listed coho salmon, Chinook salmon, and steelhead in northern California. This project would result in the acquisition of over 1300 acres of pristine or recovering forestland - conserving the entire Van Arken Creek watershed along with the headwaters of neighboring upstream tributaries Green and Ravashoni creeks. Taken in the context of the last 30 years of conservation efforts, which has resulted in the creation of the Upper Mattole River and Forest Cooperative, a ~5,500 acre old growth redwood forest and salmon refuge, this conservation action would contribute to connected, intact Mattole headwaters and secure the foundation for recovery of wild runs of ESA-listed Mattole salmonids.

The Mattole River is a critically important watershed for ESA-listed Chinook salmon, coho salmon, and steelhead in northern California. In order to recover and eventually delist these species in the wider geographic area, the Mattole River itself must be restored and the salmonid populations there rebuilt to sustainable levels (NMFS 2014, 2016).

Van Arken Creek is the third largest tributary to the Mattole headwaters. Based on a geomorphic model, NMFS determined that the aquatic habitat in Van Arken Creek has some of the highest potential in the Mattole watershed to support rearing coho salmon, Chinook salmon, and steelhead (NMFS 2014, 2016). In addition, the lack of diversions and presence of cold, clean water make the current conditions in this area exceptional within the Mattole River basin and overall in southern Humboldt County. This tributary is therefore vital to current efforts to restore salmon populations in the Mattole River watershed. If this tributary is not restored and protected but rather developed for other purposes, recovery of these species would be less likely because critically important salmonid habitat would be lost.

If the Van Arken property were managed as a refuge, the outcome would be restoration of habitat and ecosystem processes, and prevention of further degradation. If the land were instead developed, for example for agriculture or monoculture forestry, increased sediment loads, diminished dry season flows, high water temperature, and riparian destruction would likely

result. Such habitat degradation would only serve to exacerbate the plight of Mattole salmon and steelhead. Preservation and restoration of the land as a refuge would achieve the best outcomes for ESA-listed salmon and steelhead, and for their ecosystems; therefore, NMFS strongly supports such preservation and restoration efforts. If you have any questions, please contact me at (707) 825-5168 or via email at julie.weeder@noaa.gov.

Sincerely,

Julie Weeder
Recovery Coordinator

cc: CHRON File (pdf)

Literature Cited

NMFS. 2014. Final Recovery Plan for the Southern Oregon/Northern California Coast Evolutionarily Significant Unit of Coho Salmon (*Oncorhynchus kisutch*). National Marine Fisheries Service. Arcata, California.

NMFS. 2016. Coastal Multispecies Recovery Plan. National Marine Fisheries Service, West Coast Region, Santa Rosa, California.

# United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Arcata Field Office
1695 Heindon Road
Arcata, CA 95521
www.ca.blm.gov/arcata

January 3, 2017

Galen C. Doherty, Lands Program Director
Sanctuary Forest Inc.
P.O. Box 166
Whitethorn, CA 95589

Dear Galen,

On behalf of the Bureau of Land Management's (BLM) Arcata Field Office, I would like to express our support for the conservation of the Van Arken Creek watershed located in the Mattole River headwaters, Humboldt County, CA. The BLM has a longstanding and successful partnership with Sanctuary Forest with the objective of improving watershed and aquatic habitats that support native fish species.

The headwaters of the Mattole River and its tributaries are key spawning and rearing areas for native populations of coho and Chinook salmon, and steelhead trout. This project will conserve the entire Van Arken Creek watershed along with the headwaters of neighboring tributaries Green and Ravashoni Creek(s).

Van Arken Creek is the third largest tributary to the Mattole headwaters and is completely free from human diversions, with 3 miles of low gradient streambed, and cold, clean, water. The extensive low gradient stream reaches along Van Arken Creek have been recognized in various salmon and steelhead recovery documents as having the potential to support spawning and rearing salmonids. Indeed, the observation of several spawning Chinook salmon during December 2016 highlights the importance of the watershed to native salmonids.

Coho salmon are of particular concern in the Mattole River with estimates of returning adults well under 50 individuals over the last several years. This perilously low abundance leaves the Mattole coho salmon population on the brink of extinction. Van Arken Creek is a key piece in the recovery of native fish species by providing extensive spawning and rearing habitat as well as vital streamflows to the mainstem Mattole River. Maintaining an intact watershed, as this project would do, would greatly benefit the recovery of fish and aquatic habitats in the Mattole River.

We look forward to continued collaboration on the various issues affecting recovery of fish species.

Sincerely,

(Acting for)

Molly Brown
Arcata Field Manager

Sanctuary Forest

Van Arken Capital Campaign 2017

# PLEDGE FORM

## Donor Information:

Last:_____ First:_____ MI:_____

Address:_____

City:_____ State:_____ Zip Code:_____

Phone:_____ E-mail: _____

## Gift Information:

I (we) hereby contribute cash and/or assets to the Sanctuary Forest **"Van Arken Capital Campaign".**

I (we) would like to make a gift in the amount of: $_____ Amount Enclosed: $_____

I (we) wish to have this donation made over: 1 2 3 4 5 Year(s) **OR** One-time Gift ***(circle one)***

☐ **In Memory/Honor of -** Please accept this gift in memory or honor of ***(circle one):***

_____

## Contribution Type:

I (we) plan to make our contribution in the form of: Check Cash Other ***(circle one)***

***If you would like to donate by credit card, please visit our website: www.sanctuaryforest.org/donate***

## Donor Recognition:

*Donors will be recognized unless an anonymous gift is requested. Each year Sanctuary Forest holds a Donor Gratitude Naming Ceremony acknowledging all of those who have donated throughout the year.*

Please use the following name(s) in all acknowledgements: _____

☐ ***I (we) wish to remain anonymous.***

Donor Signature(s):_____ Date: _____

## I Am Interested in Other Ways to Donate:

☐ I (we) would like to designate Sanctuary Forest in my (our) estate planning.

☐ I (we) would like to receive more information about Planned Giving.

Sanctuary Forest is a 501(c)(3) nonprofit. Donations are tax deductible. Tax ID#: 94-2676195

P.O. Box 166
315 Shelter Cove Rd., #4
Whitethorn, CA 95589
(707) 986-1087; sanctuaryforest.org

Sanctuary Forest

**From:** richard scheinman
**To:** Lazar, Steve
**Subject:** eir cannabis
**Date:** Sunday, April 9, 2017 8:10:59 PM

---

Richard Scheinman MD

PO Box 49

Petrolia, CA 95558

Phone: 707 629 3365

Fax: 707 440 2717

Steve Lazar

Humboldt County Planning & Building Department

3015 H Street

Eureka, CA 95501

Re: NOP commenting on changes in cannabis cultivation project

Dear Mr. Lazar,

Here are my thoughts for the EIR on proposed cannabis regulations: The environment is being harmed by the explosion of cannabis cultivation sites. Specifically,

1. the use of light-dep and greenhouses has changed the NIGHTTIME environment around here so that it is no longer dark. This is a big loss to those of us ho came here for the beauty of the natural environment. A big loss.

2.  2.The use of generators and fans has destroyed the QUIET I and we so greatly appreciated. Another big loss.

3.  The impact on WATER is great.  There's a grow adjacent to me with thousands, actually, probably tens of thousands of plants and where are they getting their water? ( I don't know if it is legal) but that many plants need a whole lot of water in an area which doesn't have a lot Maybe they've drilled wells.

4.  Five years ago a two acre site about a hundred feet from my property line was tilled up and planted and the SMELL was toxic and and bad for my children. This was on a three hundred acre or more parcel. Why didn't they set it up away from me?

5.  The importing of soils and material  in big trucks has drastically increased the traffic and noise on the roads, as well as adversely impacted the road surfaces. There's a zillion more potholes than ever before and e have lived here for 43 year.

Here's what I suggest:

Outlaw light dep which uses fans  generators, and night light.

Make sure there is adequate regulation of water use so the land and neighbors are not impacted.

Make setbacks adequate to protect privacy and quality of life of neighbors.

Now that it is legal, industrial marijuana should be grown in industrial places if it is going to be using generators and fans and importing soil and nightlights. This is not agriculture, it is industrial.  Outdoor grows in the hills should have adequate water supply.

Yours truly,

Dick Scheinman

May 9, 2017

To: Steve Lazar
From: Robie Tenorio

RE: Input regarding Scoping Meeting for Cannabis Environmental Impact Report

Despite the best intentions of the Humboldt County Planning & Building Department and the Humboldt County Board of Supervisors in passing the Humboldt County Code regulating cannabis activities on the ground impacts have been devastating in many of the categories covered in the Notice of Preparation.

**Aesthetics** – Since the ordinance's passage the amount of plastic hoop greenhouses, solid metal or solid plastic fencing and other ugly and generally blight producing infrastructure has doubled or even tripled.

**Agriculture and Forestry Resources** – In Southern Humboldt since the passage of the ordinance the clear cutting of forest & use of timberland for grows has increased. By passing the ordinance without having sufficient enforcement in place to prevent this it has created a doubling or tripling of grows.
To have people receive tax benefits under the Williamson Act does not appear to safeguard the need to preserve agricultural land for food production because of the high price paid for cannabis versus veggies or meat.

**Air Quality** – The increase traffic of large trucks constantly being driven on small dirt roads has greatly increased the amount of fugitive dust.
How will you be able to measure the increase in pollution & degradation of air quality from the running of gas or diesel powered generators that are used for growing "mixed light"?
It is absolutely a mistake to allow and encourage any use of fossil fuels to grow a plant that could be grown without artificial light. The clear and present danger of Climate Change is not being addressed. When communities around the world are struggling to find ways to lessen their dependence on Fossil Fuels Humboldt County is encouraging an unnecessary contribution to Global Climate Disruption.

**Biological Resources** - I agree with every concern mentioned in this section. There is direct loss of vegetation and wildlife habitats due to the grading and vegetation removal for new cultivation & expansion of existing grows.
There has been an increase in road construction, and an increase use of existing roads which all creates sediment, which will find its way into streams.
The continued use of rivers, creeks, springs and seeps for these expansions will have a significant impact on wildlife both terrestrial and aquatic as watercourses dry up from diversion for cannabis growing.
Noise pollution from generators, fencing and light emitted from "mixed light" cultivation all has a negative impact on wildlife and human neighbors. Again

because of the lack of enforcement there has been an increase of generator noise. Also it is a negative impact on the quality of life for residents of this previously quiet and peaceful rural area.

**Cultural Resources and Tribal Cultural Resources** –
How will you survey the areas for Tribal Cultural Resource concerns?
How will the County enforce any regulations concerning Tribal Cultural Resources?

The **Hazards & Hazardous Material** category should include the use of gas or diesel generators for indoor or "mixed light" grows. Where there is fuel used there will be spills – that will contaminate land and water ways.
The very serious impact of fires resulting from generator use for indoor or mixed light could be devastating for our area. In the unincorporated areas of the county we are dependent on our local volunteer fire departments, who have already had to respond to fires from generator grows. We have been lucky so far. But the potential for catastrophic wildfire is present and will put all of our communities at risk of losing their homes and possibly their lives. To continue to ask our volunteers to put their lives at risk for an indoor or mixed light cannabis grow is criminal.

**Hydrology and Water Quality**
**Geology and Soils -**

How will you be able to adequately assess the impacts on water and soil?
How will you be able to monitor the on the ground and in the waterway impacts of all these grows? Especially the ones not applying for permits but feeling that they can double and triple their grows because of a lack of enforcement.

**Public Services**
This may be the area to address impacts on roads. The roads in Southern Humboldt were built in a time of considerably less traffic. In the last 5 years traffic of large trucks, large trucks with trailers, 5, 10 & 20-ton delivery trucks and water trucks has greatly increased. Since the passing of the ordinance it has become a constant stream on all our roads.
Between the issues of 50 year old failing culverts (which is to be expected), very wet winters and the constant high impact of industrial level cannabis growing our county roads have been devastated. This also includes the same impacts on private sub division roads and has created problems for Road Associations who are not able to collect fees from those causing the damage.
In the Public Service category you do bring up the potential for increased risk of fire. This needs to be addressed – generators running in High Fire Hazard areas to grow cannabis indoors or mixed light puts all of us – but especially our volunteer fire fighters in serious danger.

**Cumulative Impacts –**

Because there is such a broad range of impacts from the air pollution to the disintegration of the roads it will be difficult if not impossible to fully asses the cumulative impacts.
But there is no doubt that industrial cannabis agriculture in remote rural areas of Humboldt County will have negative cumulative impacts on the air, the land, the waterways, the wildlife and the human population.

One area not mentioned is the use of plastic.
Californians have voted to eliminate single use plastic bags at the grocery stores yet the current cannabis farming practice for most growers uses an incredible amount of plastic. Plastic bags for fertilizer, plastic for greenhouses, plastic for the light dep grows. If you go to any of our local dumps you will see enormous piles of plastic. Much of it single use. This will have a long-term negative impact on the environment.

| | |
|---|---|
| **From:** | Sal Chinnici |
| **To:** | Lazar, Steve |
| **Subject:** | Comments on Proposed Amendments to Hum Co Code Regulating Commercial Cannabis Activites |
| **Date:** | Thursday, May 4, 2017 11:53:10 AM |
| **Attachments:** | The Buckeye Marijuana Position Paper March 2017 (2).pdf |

Dear Mr. Lazar,

This email is to provide written comments in the matter of *Proposed Amendments to Humboldt County Code Regulating Commercial Cannabis Activities.* I am providing my comments as a private citizen of Fortuna, CA, and my comments not meant to represent any other party or organization.

I think that the County moved too fast on this project and mistakes were made in decisions on regulating commercial cannabis activities. Given the scope and importance of regulating such activities to the future of Humboldt County and its residents it is critical that the appropriate time be taken to get this right.

In particular I want to address the topic of “special requirements/limitations for projects located within spheres of influence or community areas”. As a resident of Fortuna I have noted the recent proposals to establish commercial cannabis grows on County lands adjacent to private parcels and I am gravely concerned about the potential impacts to our city and residents, including our children, our water supply, and native wildlife, among others.

For example, concerns that need to be addressed include:

- Violent crime and increased dangerous drug use related to the marijuana industry;
- Overuse of rural roads, including high speed, and reckless driving;
- Disturbance from environmental and “white” noise pollution, e.g., traffic, generators, stray dogs, poaching, odor, light pollution etc.;
- Decreased private property values as a result of adjacent cannabis businesses;
- Long-term environmental impacts of the marijuana industry on Humboldt County’s wildlands and associated fisheries and wildlife resources;
- Growers/permit holders are not being held accountable for causing environmental degradation.

In addition, the cannabis industry must be held to the same regulatory standards as other industries in Humboldt County:

- Marijuana growers must abide by and be consistent with all land-use and other pertinent regulations. Those include but are not limited to:
    - CDFW Lake and Streambed Alteration Agreements (Fish and Game Code Sec 1600, et al);
    - State Water Resources Control Board:  Water Allocation and Diversion Permits;
    - Regional Water Quality:  Wastewater Discharge Permit/404 waiver;
    - Corp of Engineers: 401 permit.
    - All codes and permits must be in place before cultivation occurs;
    - All codes and permits need to be enforced by the appropriate regulatory agencies;

- Marijuana cultivators must have ample water storage to avoid any stream, well, or ground water diversion from July 1 – November 15 of any given year.

I am attaching the position paper on the Impacts from the Humboldt County Marijuana Industry from The Buckeye because many of my comments are similar to The Buckeye's position, and because I also agree with their position. However, I want to be clear that I am commenting as a private citizen, and I am not representing The Buckeye.

Thank you,

Sal Chinnici
3563 Larsen Lane
Fortuna, CA 95540
Daytime phone: 707-764-4299

5/4/17

Steve Lazar
Humboldt County Planning and Building Department
3015 H Street
Eureka, Ca. 95501

Subject: Response to the Notice of Preparation for Zoning Ordinance Amendments Regarding Commercial Cannabis Land Use Ordinance (CCLUO)

Dear Steve,

The Buckeye would like to express its concerns regarding the Zoning Ordinance Amendments regarding Commercial Cannabis Land Use Ordinance (CCLUO).

The Buckeye is a non-profit organization of family farm, ranch and forest landowners and resource managers representing over 300,000 acres in the North Coast Region. We are dedicated to the promotion, communication, and implementation of those ideals and policies that support the ecologic and economic sustainability of natural resources and open space in family ownership. Our mission is to protect open space and family ranch land values.

During the Environmental Impact Reporting process, The Buckeye suggests Environmental Impact Reporting on unpermitted grows should be included, as these marijuana grows also have significant impacts on our natural resources. This will give a much more accurate projection of the true environmental impact of marijuana cultivation across our landscape. This information is especially important before adding additional permitted grows which will put additional pressure on our natural resources.

The Buckeye also has concerns over the marijuana cultivation permitting process. We strongly urge that ALL permits for marijuana cultivation must be approved and in place before cultivation can occur. In every other business, all permits must be approved and in place before any business can be conducted: (i.e. building permits, timber harvest permits, grading permits, road construction, etc.) We must hold commercial marijuana cultivation to the same standards as other legal enterprises.

Included with this letter is the previously submitted March 2017 Buckeye Position Paper on the Impacts from the Humboldt County Marijuana Industry. We believe this paper strongly represents the mission and values of our organization and our membership.

Sincerely,

James L. Able
Chairman
The Buckeye

P.O. Box 5607 Eureka, CA 95502 Tel 707.725.8847
Email: buckeye@humboldt1.com web: www.buckeyeconservancy.org

**March 2017 Buckeye Position Paper on the Impacts from the Humboldt County Marijuana Industry**

The Buckeye does not condone the commercial farming, production and marketing of federally illegal marijuana in Humboldt County, and/or its neighboring counties. We realize that the voters of the State of California have deemed marijuana to be legal for both medical and recreational use, despite its federal status. This situation has led to a quasi-legal status for marijuana, and an exponential growth in production that has created intense pressure on North Coast communities and natural resources, especially the over-drafting of water diverted for plantation irrigation.

Thus, the Buckeye has deep concerns about the environmental degradation caused by rampant and illegal marijuana cultivation that has occurred over the last five decades in our North Coast watersheds and streams, and the harm done to the fish and wildlife species dependent upon those resources.

The marijuana industry must be held to the same regulatory standards as farming, timber, dairy and ranching:

- Marijuana growers must abide by and be consistent with all land-use and other pertinent regulations. Those include but are not limited to:
    - CDFW Lake and Streambed Alteration Agreements (Fish and Game Code Sec 1600, et al);
    - State Water Resources Control Board: Water Allocation and Diversion Permits;
    - Regional Water Quality: Wastewater Discharge Permit/404 waiver;
    - Corp of Engineers: 401 permit.
- Marijuana cultivation should not occur on TPZ, timberlands or Prime Ag lands. A certified soil type and landform determination with the Natural Resource Conservation Service soil code must be a requirement for a use permit application;
- All codes and permits must be in place before cultivation occurs;
- All codes and permits need to be enforced by the appropriate regulatory agencies;
- Marijuana cultivation shall not occur on slopes greater than 15%;
- Marijuana cultivators must have ample water storage to avoid any stream, well, or ground water diversion from July 1 – November 15 of any given year;
- Marijuana growers must be held accountable and responsible for restoration of environmental degradation that has occurred pertaining to past growing operations on their property.

Additionally, The Buckeye has serious concerns with the following:

- Widespread violent crime and increased dangerous drug use related to the marijuana industry;
- Prevalent high speed, reckless, and impaired driving on rural roads endangering the public;
- Disturbance from environmental and “white” noise pollution, e.g., traffic, generators, stray dogs, poaching, odor, light pollution etc.;
- Rural communities’ traditional quality of life that has been impacted by the loss of open spaces provided by large ranches and lands that have been subdivided, developed, and subsequently intensely cultivated for marijuana production;
- Property values are artificially inflated and traditional agricultural entrepreneurs cannot afford to purchase land, or they are motivated to sell open land at inflated market prices;
- Long-term environmental impacts of the marijuana industry on Humboldt County’s wildlands and associated fisheries and wildlife resources;
- Growers/permit holders are not being held accountable for causing environmental degradation.

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**March 2017 Buckeye Position Paper on the Impacts from the Humboldt County Marijuana Industry**

The Buckeye does not condone the commercial farming, production and marketing of federally illegal marijuana in Humboldt County, and/or its neighboring counties. We realize that the voters of the State of California have deemed marijuana to be legal for both medical and recreational use, despite its federal status. This situation has led to a quasi-legal status for marijuana, and an exponential growth in production that has created intense pressure on North Coast communities and natural resources, especially the over-drafting of water diverted for plantation irrigation.

Thus, the Buckeye has deep concerns about the environmental degradation caused by rampant and illegal marijuana cultivation that has occurred over the last five decades in our North Coast watersheds and streams, and the harm done to the fish and wildlife species dependent upon those resources.

The marijuana industry must be held to the same regulatory standards as farming, timber, dairy and ranching:

- Marijuana growers must abide by and be consistent with all land-use and other pertinent regulations. Those include but are not limited to:
    - CDFW Lake and Streambed Alteration Agreements (Fish and Game Code Sec 1600, et al);
    - State Water Resources Control Board: Water Allocation and Diversion Permits;
    - Regional Water Quality: Wastewater Discharge Permit/404 waiver;
    - Corp of Engineers: 401 permit.
- Marijuana cultivation should not occur on TPZ, timberlands or Prime Ag lands. A certified soil type and landform determination with the Natural Resource Conservation Service soil code must be a requirement for a use permit application;
- All codes and permits must be in place before cultivation occurs;
- All codes and permits need to be enforced by the appropriate regulatory agencies;
- Marijuana cultivation shall not occur on slopes greater than 15%;
- Marijuana cultivators must have ample water storage to avoid any stream, well, or ground water diversion from July 1 – November 15 of any given year;
- Marijuana growers must be held accountable and responsible for restoration of environmental degradation that has occurred pertaining to past growing operations on their property.

Additionally, The Buckeye has serious concerns with the following:

- Widespread violent crime and increased dangerous drug use related to the marijuana industry;
- Prevalent high speed, reckless, and impaired driving on rural roads endangering the public;
- Disturbance from environmental and “white” noise pollution, e.g., traffic, generators, stray dogs, poaching, odor, light pollution etc.;
- Rural communities’ traditional quality of life that has been impacted by the loss of open spaces provided by large ranches and lands that have been subdivided, developed, and subsequently intensely cultivated for marijuana production;
- Property values are artificially inflated and traditional agricultural entrepreneurs cannot afford to purchase land, or they are motivated to sell open land at inflated market prices;
- Long-term environmental impacts of the marijuana industry on Humboldt County’s wildlands and associated fisheries and wildlife resources;
- Growers/permit holders are not being held accountable for causing environmental degradation.

P.O. Box 5607 Eureka, CA 95502 Tel 707.725.8847
Email: buckeye@humboldt1.com web: www.buckeyeconservancy.org

This is the letter that every person was shown and offered a copy of as the petition was signed. Please attach it to the petition if you want to.

Thanks for talking with me yesterday. I will continue to tell people to trust that you will make changes to protect residences from grow issues

REC
MAY -

EIVED
· 9 2017
t County
Division

Humboldt County Planning & Building Department 4-16-17
3015 H Street
Eureka, CA 95501
ATTN: Steven Lazar

Steve: Some of these suggestions are rewrites from other ordinances and have been adopted as practical.

Ref: **NOP REVIEW**

The following suggestions are for the Notice of Preparation to the Environmental Impact Report scheduled to be implemented in 2017. The goal of these comments are to maintain or improve the character, appearance, and livability of established neighborhoods to include our surrounding environment. I'm asking that we protect this environment from incompatible uses, excessive noise, traffic, dust, light spillage, glare, odor, and similar significant nuisances that may be caused by cannabis cultivation.

By considering these recommendations we can ensure our environment is adequately protected both inside and outside any Sphere of Influence (SOI) within Humboldt County.

* **Residential setback**

On eligible parcels regardless of size, any commercial marijuana cultivation area must be setback at least a minimum of three hundred (300) feet from existing residences on adjoining parcels. This will provide a reasonable buffer zone to help eliminate nuisances.

* **Property Line Setback**

Any cannabis cultivation area must be setback a minimum of at least one hundred (100) feet from the property line.

* **Prime Ag Land**

As you had mentioned in your NOP; Expand the areas where new cultivation or expansion of existing cultivation sites will be permitted to locations with or without prime agricultural soils that are planned and zoned for agricultural use.
This would be extremely helpful where cultivators have prime soils close to adjacent neighbors but also have the opportunity to relocate. Gaining access to some of these prime ag locations may cause significant environmental harm.

* **Odor**

1. A greenhouse utilizing a mixed-light operation used for marijuana production or a building used for marijuana processing shall be equipped with an activated carbon filtration system for odor control to ensure that air leaving the building through an exhaust vent first passes through an activated carbon filter.
2. The filtration system shall consist of one or more fans and activated carbon filters. At a minimum, the fan(s) shall be sized for cubic feet per minute (CFM) equivalent to the volume of the building (length multiplied by width multiplied by height) divided by three. The filter(s) shall be rated for the applicable CFM.
3. The filtration system shall be maintained in working order and shall be in use. The filters shall be changed a minimum of once every 365 days.
4. Negative air pressure shall be maintained inside the building.
5. Doors and windows shall remain closed, except for the minimum length of time needed to allow people to ingress or egress the building.
6. The filtration system shall be designed by a mechanical engineer licensed in the State of California. The engineer shall stamp the design and certify that it complies with the amended Commercial Medical Marijuana Land Use Ordinance.
7. An alternative odor control system is permitted if the applicant submits a report by a mechanical engineer licensed in the State of California demonstrating that the alternative system will control odor as well or better than the activated carbon filtration system otherwise required.

* **Noise**

The applicant shall submit a noise study by an acoustic engineer licensed in the State of California. The study shall demonstrate that all mechanical equipment used for heating, ventilating, air conditioning, or odor control will not produce sound that, when measured at any lot line of the subject property, exceeds 50 dB(A). Any type of disruptive mechanical noise should not be audible at adjacent residences. The use of generators within a SOI should be restricted.

* **Hydrology and Water Quality**

Many groundwater wells rely on a hydrologic connection between one another and to the rivers and streams of the valleys. By allowing irrigation wells in any area cultivating close to residential wells and surface water has the "potential for interference with each another". It is important to realize when high impact activities occur, such as marijuana cultivation off a groundwater well near residential wells or a stream, we are in "uncharted waters" so to speak. We must look for ways to protect our environment and become aware of the gift we often take for granted.

* **Security Cameras**

If used, security cameras shall be directed to record only the subject property and may be directed to public rights-of-way as applicable. Cameras are not to be directed toward neighborhood residences or properties.

* **Security Lights**

If used, security lights shall not be directed toward any adjacent residences or in any manner disrupt any environmentally sensitive habitat areas.

* **Aesthetics and Property Values**

There should be a stronger emphases on aesthetics and the effect that cultivation has on adjacent property values.

Inside of all Spheres Of Influence earth tone fencing should be a requirement.

Chain link fencing shall be vinyl coated in earth tone colors to be compatible with the lot upon which it is to be built, in terms of topography, soil and existing vegetation. All chain link accessories, posts, gates and other fencing materials must be color coordinated in earth tones to match the vinyl coating.

The planting of a privacy vegetation screen is also highly recommended.

* **Neighbor Notification**

Any commercial marijuana cultivation, both inside and outside a SOI, should provide adjacent neighbors of the intent to grow as part of the application process. This will give that neighbor a chance to voice any type of concerns including right-of-way, safety, nuisance, or environmental obstacles.

Considering these proposed amendments is extremely important to the public safety, quality of life, property values of our citizens and the environment we all live in.

Tim Meade
400 Nob Hill
Fortuna, CA 95540
707-725-2011

**From:** Steve Watson
**To:** Lazar, Steve
**Subject:** Re: NOP for EIR Marijuana
**Date:** Wednesday, May 10, 2017 2:58:21 PM

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Here you go and thank you Steve:

While I understand and begrudgingly accept that "legalized" recreational and commercial sales of marijuana has come to California and Humboldt County, responsible, equally represented governance would require that those involved in the cannabis industry be consistently held to reasonable, equitable and and clearly defined standards. They should be expected and required to be responsible stewards of OUR land and good neighbors - attentive to the 4 "S's" of concern (mitigation of sight, smell, sound and safety issues). In the rush to legalize and allow large, commercial-scale cannabis operations, these issues were not sufficiently addressed by the previous ordinance passed by our Board of Supervisors. We need a robust, effective and timely system to hold negligent and indifferent cannabis growers accountable. Those injured and negatively impacted by this exploding industry need a way for their voices and concerns to be heard and valid complaints quickly addressed. Much of this requires fixing the flawed ordinance which the NOP for EIR may be an opportunity to do.

We have to ask ourselves what vision of Humboldt do we want to create for our children - what kind of future ?

Do we want to attract residents who move to Humboldt to build and better our community for the long-term or those only rushing here to make a quick buck during the Green Rush? Humboldt is one of the most beautiful places on earth--or was. I was born and raised here. I brought my wife and family back "home" 12 years ago. But Humboldt today is not the one I cherished and remember.

My wife frequently comments about how incredibly beautiful our county is as we drive along Humboldt's scenic highways--even everyday places like Highway 101 near Loleta are notably beautiful. Will she and other visitors still feel that way as ugly white marijuana hoop houses proliferate along our roads and highways?

I'm asking for the BOS to represent ALL of their community and not just seemingly at times the exploding cannabis industry.

We should expect cannabis entrepreneurs to be responsible stewards of the land and good neighbors at a minimum. That's means being attentive to the safety, sights, sounds and smells of potentially impacted residences and businesses nearby.

The setbacks for cannabis cultivations and processing operations need to be increased for any

permits issued adjacent to residential neighborhoods and homes even in agricultural zones (such as those just outside Fortuna). Strict smell, sight, sound and safety regulations need to be created and enforced. Those leaving near a cannabis operation should not have to have their happiness, well-being, property values and use of their homes negatively impacted by the noxious, persistent odor of growing marijuana. The landscape of our community is changing with increased housing density in many of these areas. It's not appropriate or fair to rubber stamp-approve a cannabis permit just because the property is located within in certain zones and and parcel sizes (such as Ag General over 5 acres). There needs to be consideration and due process for homes and families negatively impacted in such areas due to their close proximity to marijuana grows.

For instance, we are only 2-3 football fields away from an approved 10000 square foot mixed light cannabis operation that includes a separate processing building. Apparently an additional 10000 sq permit may have been applied for on an adjacent parcel. We could have 20000 sq of highly stinky marijuana grows operating in close proximity to the dream home however recently bought to raise our large family.

How is that right and fair? How is this profiteer being required to be a good neighbor? My family cannot tolerate the smell of weed in any form. We are essentially being denied the right and opportunity to enjoy the beauty and peaceful use of our own home, which was built long before the cannabis operation existed. My family cannot tolerate the smell of weed in any form. No open windows during the hot summer months. No backyard barbecues without the regular stench of marijuana permeating the air both in and outside our home.

Please require that these issues be addressed before any new permits are issued, and existing operations be required to address smell and other related issues negatively impacting residences in their vicinity.

Responsible stewards of the land and good neighbors...these are reasonable expectations and requirements that the current ordinance does not adequately address. Humboldt has plenty of land to support this industry. Please safeguard the homes and happiness of those many families who are being harmed and negatively impacted by the large scale grows that are being permitted with little to know due process and appeal rights for potentially impacted neighbors.

Odor control needs to be addressed for all grows, new and existing, and set backs from adjoining residences and parcel lines need to be increased and/or permitted cultivation space reduced in those cases when neighbors would be negatively impacted. Please fairly and responsibly represent all of Humboldt, including the many individuals and families who are not enamored by cannabis, by fixing these issues.

Sincerely,

S.Watson
PO Box 308 Fortuna, CA. 95540

Sent from my iPhone

| | |
|---|---|
| **From:** | Robert Wiele |
| **To:** | Lazar, Steve |
| **Subject:** | Marijuana regulation |
| **Date:** | Tuesday, May 9, 2017 1:10:27 PM |

Mr Lazar.

I live in Petrolia and am writing to comment on the effects of the marijuana boom on our town.

There is a strong consensus that it is undermining the quality of life for most of us here, and that there needs to be more restrictive regulations. This is especially true of those unfortunate enough to have had huge grow houses spring up near there homes. Bright grow lights and the noise from generators at night are making some people's life miserable. Longterm residents are leaving because of this.

The "trimigrants" that flock here in the fall congregate at the community center hoping for work and cause a sanitation problem. Port-a Potties were provided for them at community expense but that didn't completely solve the problem.

Semis towing two 30 foot trailers laden with growing materials are now a common sight on the Mattole Road. The increased damage to our roads is evident. These trucks also come around blind curves taking up both lanes. The length and weight of vehicles on our rural roads need to be regulated.

People have been growing marijuana illegally in Humboldt for two generations with impunity. Some are not going to see the need to get permits, pay fees, and follow regulations.

We need laws that keep the welfare of the entire community in mind, and we need serious enforcement of the law.

Thanks for your consideration,

Rob Wiele, Petrolia

John G. Williams, Ph.D.

4/20/2017

Steven Lazar
Humboldt County Planning & Building Department
3015 H Street
Eureka, CA 95501

Dear Mr. Lazar:

Thank you for the opportunity to comment on the Notice of Preparation (NOP) for a draft EIR on amendments to the Humboldt County Code regulating commercial cannabis activities. My comments are based on my experiences in the Petrolia area, where I now live, and on my past experience as an environmental hydrologist. I hope they will assist the county in developing an adequate EIR.

Whoever prepares the EIR needs to understand that life in rural communities depends heavily on mutual aid. Rural people tend to be self-reliant, but nevertheless depend also on their neighbors, as well as on local and state governments. The tradition among ranching families of helping each other gather cattle is perhaps the prime example of rural mutual aid, but mutual aid operates in other ways, as well. Some are formalized as non-profit corporations or local districts, such as the Mattole Valley Community Center (MVCC) and the Petrolia Volunteer Fire Department (PVFD), while others are informal but nevertheless vital for comfortable rural life. For example, when trees fall down and block county roads, people living nearby simply take their chain saws, and perhaps a tractor, and open the road. Or, one neighbor feeds the other's animals when that neighbor is away. Rural life thus depends on a complex web of relationships, and the EIR needs to consider the stresses that rapid population changes resulting from the proposed project will impose upon it.

One major threat from consequences of the proposed project to the web of relationships just described is the influx (already underway) of people who do not intend to live here for long, but instead have a "get rich quick and get out" mentality. They have little incentive to help others, and the presence of too many non-cooperators subverts mutual aid. As one aspect of this, the EIR must take account of the impacts resulting from the seasonal labor force associated with marijuana cultivation, but the NOP fails to mention these. Based on our experience here in Petrolia, these impacts are significant. For example:

> Our first responders for medical calls are volunteer firefighters. Responding to calls from seasonal workers has seriously stressed this group, and a significant increase in the short-term and seasonal worker populations may stress it to the breaking point. This is not the fault of marijuana growing *per se*; some of our first responders make their living

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that way, but the explosive growth of the industry and the associated get rich quick mentality of many newcomers make the problem serious.

Like anybody else, seasonal workers need to eat and excrete, but sanitary facilities for excretion are scarce, raising issues of public health and aesthetics (marijuana is not the only thing that stinks). This problem is already serious enough that the Mattole Valley Community Center rents porta-potties for public use during the season. Volunteers clean and otherwise maintain these, but as with the first responders, these volunteers may burn out if their task becomes too burdensome.

Seasonal workers also need places to stay, but little housing is available. Some growers provide housing for their workers, but many do not. This stresses local public campgrounds, and promotes trespass camping.

On another matter, rural roads in California have suffered since Proposition 13 was adopted in 1978, shortly after I started coming to this area. On account of the geology and the weather, rural roads here are hard enough to maintain without an industry that relies "upon the import of the soil to the cultivation site," with much of the truck traffic during the wet season when roads are especially vulnerable. Unfortunately, reading the NOP, I get the sense that the county does not appreciate the enormity of the problem. Sentences such as "Incremental increases in demand for law enforcement along with other services, such as road maintenance, may also occur" do not inspire confidence on the point.

Humboldt County has a history of booms and busts, and the EIR must take account of the likelihood that the marijuana boom will bust, as production moves to areas with lower labor costs. This will leave legacy dirt roads that will no longer be maintained, the remains of greenhouses scattered over the landscape, etc. This could be mitigated by requiring permittees to post an appropriate bond for deconstruction.

Finally, an unusual but fundamental question for the EIR is whether the county is capable of regulating the marijuana industry in any reasonable way. It is no secret that the county planning process is overwhelmed by it. Is there any reason to think that the county's enforcement processes will do any better? For example, light pollution is a major concern for long-term residents here. How, as a practical matter, would the county inforce restrictions on light escaping from greenhouses. Again, the get-rich-quick attitude matters. The EIR cannot depend on regulations or mitigation measures that, as a practical matter, the county cannot inforce.

Sincerely,

John Williams, Ph.D.

| | |
|---|---|
| **From:** | Adam |
| **To:** | Ford, John; Lazar, Steve; Werner, Steve |
| **Cc:** | "Tom"; "Janet Eidsness"; "tim nelson"; alr51@humboldt.edu; "Erika Cooper" |
| **Subject:** | Wiyot Terr. cannabis applicant GIS layer and ethnobotany |
| **Date:** | Wednesday, April 19, 2017 11:52:58 AM |
| **Attachments:** | Copy of NaturalCommunitiesList_Hierarchy_Sept_2010.xls<br>Calif_Oak_Woodlands_ProtectionAct.pdf |

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Hi Steve and others,

This is Adam Canter, GIS person/botanist/ethnobotanist for the Wiyot Tribe. Thank you for coming to meet with the tribes last Fri. We spoke briefly about you getting us the cannabis permit applicant GIS layer for Wiyot ancestral Terr. and I wanted to follow up on that so we can assess relevant potential impacts and comment.

We also brought up the need to assess impacts to ethnobotanical resources (a type of TCR), particularly those that overlap as listed Natural Communities (CDFW) with ranks S3 or lower, which also must be acknowledged in list 4B of CEQA. For your interest I have attached an excel copy of the CDFW list which has types relevant to the Wiyot Tribe listed as separate tabs for both the Table Bluff area as well as the general ones found in dune, wetland, and maritime areas around Humboldt Bay. I will be drafting up a list for the regional Tribes as per requested at the inter-tribal cannabis impacts meeting on 4/14. I would be happy to discuss some of the more relevant habitat types and or provide some guidance to permiters and consultants if you think this should be passed on from your level, or perhaps this should just be addressed on a case by case basis as the responsibility of the individual tribes, let me know your thoughts.

One concern that I have gotten from a few consultant friends of mine is that white oak, tanoak, and possibly hazel stands are being over-looked by consultants. The example can play out when Douglas fir areas are zoned off as "Timber" areas and oak clearing is then in turn slated as acceptable to further develope cultivation areas (say for a remediation grow transfer). It would be a shame to see un-intentional impacts to our already struggling California oak woodlands from situations where on paper it appears that impacts to special status vegetation types have been addressed. We also have the recent AB 2162 Oak Woodland Conservation Act, which has mandated some additional protections to oak woodlands which need to be addressed during the permitting process.

In many situations, relevent botanical communities are relics of past indigenous land management. I have been speaking with other tribal THPOs regarding the significance that particular vegetation types may bring to classical archaeological sites and the implied protections of such sites under AB 52.

I would be happy to discuss these topics further at your request. Thank you for your time and consideration, Adam

Adam N. Canter
Botanist/Natural Resource Technician
Natural Resource Department
Wiyot Tribe
1000 Wiyot Dr.
Loleta, CA 95551
707-972-0065
adam@wiyot.us

# ASSEMBLY BILL No. 2162

**Introduced by Assembly Member Chu**

February 17, 2016

An act to add Chapter 6.3 (commencing with Section 1625) to Division 2 of the Fish and Game Code, and to repeal Section 21083.4 of the Public Resources Code, relating to forestry, and making an appropriation therefor.

## LEGISLATIVE COUNSEL'S DIGEST

AB 2162, as introduced, Chu. Oak Woodlands Protection Act.

The Z'berg-Nejedly Forest Practice Act of 1973 prohibits a person from conducting timber operations unless a timber harvesting plan prepared by a registered professional forester has been submitted to the Department of Forestry and Fire Protection. The Oak Woodlands Conservation Act provides funding for the conservation and protection of California's oak woodlands. Any violation of the Fish and Game Code is a crime.

This bill would enact the Oak Woodlands Protection Act, which would prohibit a person from removing from an oak woodland, as defined, specified oak trees, unless an oak removal plan and oak removal permit application for the oak tree removal has been submitted to and approved by the Director of Fish and Wildlife.

By June, 30, 2016, the bill would require the Fish and Game Commission to adopt regulations to implement the act, including regulations establishing an oak removal permit application fee. The bill would require the fee to be deposited into the Oak Woodlands Protection Act Fund, as created by the bill. Moneys in the fund would be continuously appropriated to the department for purposes of paying the

total costs incurred by the department in administering and enforcing the act, thereby making an appropriation.

The bill would provide that any person who violates the act is subject to a civil penalty of not more than $25,000 for each violation. The bill would require all civil penalties collected to be apportioned in a specified manner, including 50% to be distributed to the Wildlife Conservation Board for deposit into the Oak Woodlands Conservation Fund.

Existing law requires a county to determine whether a project may result in a conversion of oak woodlands that will have a significant effect on the environment, and if it does, existing law requires the county to require one or more specified oak woodlands mitigation alternatives to mitigate the significant effect.

This bill would delete this law.

To the extent this bill would provide for additional criminal prosecutions for violations of the Fish and Game Code, the bill would impose a state-mandated local program.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

Vote: majority. Appropriation: yes. Fiscal committee: yes. State-mandated local program: yes.

*The people of the State of California do enact as follows:*

SECTION 1. Chapter 6.3 (commencing with Section 1625) is added to Division 2 of the Fish and Game Code, to read:

## CHAPTER 6.3. OAK WOODLANDS PROTECTION ACT

1625. This chapter shall be known, and may be cited, as the Oak Woodlands Protection Act.

1626. The Legislature hereby finds and declares all of the following:

(a) The conservation of oak woodlands enhances the natural scenic beauty for residents and visitors, increases real property values, promotes ecological balance, provides sustainable habitat for over 300 wildlife species and 2,000 plant species, reduces soil erosion, sustains healthy watersheds and water quality, moderates

temperature extremes and climate change, and aids with nutrient cycling, all of which affect and improve the health, safety, and general welfare of the residents of the State of California.

(b) Widespread changes in land use patterns across the landscape and habitat loss due to the pathogen Phytophthora ramorum, commonly known as Sudden Oak Death, and infestations of the Goldspotted Oak Borer parasite, are fragmenting oak woodlands' wildland character over extensive areas of the state. The combination of human impact and other impacts will cumulatively fragment oak ecosystem continuity unless appropriate conservation steps are taken immediately.

(c) The future viability of hundreds of California's wildlife species are dependent on the maintenance of biologically functional and contiguous oak woodland ecosystems at local and bioregional scales.

(d) A program to encourage and make possible the long-term conservation of oak woodlands is a necessary part of the state's wildlands protection policies. It is hereby declared to be the policy of the state to conserve oak woodlands and maintain oak ecosystem health.

1627. It is the intent of the Legislature that this chapter be construed in light of the following primary objectives:

(a) To conserve oak woodland ecological attributes remaining in California and to provide habitat for wildlife species that are associated with that habitat.

(b) To provide maximum conservation of the oak woodlands ecosystem.

(c) To ensure that land use decisions affecting oak woodlands and dependent wildlife are based on the best available scientific information and habitat mitigation measures.

(d) To restore and perpetuate the state's most biologically diverse natural resource for future generations of Californians.

1628. For purposes of this chapter, the following terms have the following meanings:

(a) "Canopy cover" means the area, measured as a percentage of total ground area, directly under the live branches of an oak tree.

(b) "Oak removal" means causing an oak tree to die or be removed as a result of human activity by any means including, but

not limited to, cutting, dislodging, poisoning, burning, pruning, topping, or damaging of roots.

(c) "Oak removal permit" means a discretionary permit approving an application to remove, from an oak woodland during any calendar year, oak trees, as specified in Section 1629.

(d) "Oak removal plan" means an oak woodlands biological impacts evaluation and site-specific management plan.

(e) "Oak tree" means any tree in the genus Quercus that is not growing on timberland.

(f) "Oak woodland" means a land with a greater than ten percent oak canopy cover, or that can be demonstrated to have historically supported greater than ten percent oak canopy cover, and that meets either of the following:

(1) A nontimberland area on a parcel of five or more acres containing oak trees.

(2) A nontimberland area on a parcel of at least one or more acres containing valley oak trees.

(g) "Parcel" means a single assessor's parcel of land as shown on maps produced by the county assessor.

(h) "Riparian hardwood" means native broadleaved evergreen and deciduous trees that produce flowers and grow within 50 feet, measured horizontally, of any watercourse, lake, or reservoir.

(i) "Timberland" has the same meaning as defined in Section 4526 of the Public Resources Code.

(j) "Watercourse" means any well-defined channel with distinguishable bed and bank showing evidence of having contained flowing water indicated by deposit of rock, sand, gravel, or soil, including, but not limited to, a "stream" as defined in Section 4528 of the Public Resources Code.

1629. (a) (1) Unless an oak removal plan and oak removal permit application for oak removal has been submitted to and approved by the director, a person shall not remove from an oak woodland during a calendar year either of the following:

(A) A valley oak tree greater or equal to 10 inches in diameter at breast height.

(B) For oak trees other than valley oak trees, 10 or more oak trees greater than or equal to 10 inches in diameter at breast height.

(2) The director's authority to approve an oak removal plan and oak removal permit application pursuant to this subdivision may be delegated by the director to regional managers in the department.

(b) An oak removal plan and oak removal permit application shall be prepared and signed by a registered professional forester.

(c) Applications for oak removal permits shall be on a form prescribed by the director.

(d) By June 30, 2016, the commission shall adopt regulations to implement this chapter, including regulations establishing an application fee for the cost of processing an application for an oak removal permit. The fee charged shall be established in an amount necessary to pay the total costs incurred by the department in administering and enforcing this chapter. The regulations shall ensure that the canopy cover and mapping information contained in all oak removal plans submitted as part of an oak removal permit application is incorporated into a vegetation classification and mapping program maintained by the department.

(e) The fee established pursuant to this section shall be deposited into the Oak Woodlands Protection Act Fund, which is hereby created in the State Treasury. Notwithstanding Section 13340 of the Government Code, moneys in the fund are continuously appropriated to the department for the purposes described in subdivision (d).

1630. An oak removal plan, in a form prescribed by the commission, shall become part of the application for an oak removal permit. The oak removal plan shall set forth, but not be limited to, the following information:

(a) Present and future parcel use.

(b) Existing and proposed parcel canopy cover percentages.

(c) A parcel map indicating the location of all proposed oak removal.

(d) Diameter at breast height and type of oak species to be removed.

(e) Number of acres on which oak removal will occur.

(f) Habitat mitigation measures.

(g) Information required pursuant to Section 21160 of the Public Resources Code.

1631. (a) The director’s decision to approve an oak removal permit pursuant to this chapter is a discretionary project approval subject to the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code).

(b) The director or commission may apply to the Secretary of the Natural Resources Agency to certify this program pursuant to Section 21080.5 of the Public Resources Code.

1632. (a) The director shall not approve an oak removal permit if any of the following exist:

(1) The application and oak removal plan do not comply with this chapter or the regulations adopted by the commission to implement this chapter.

(2) The director cannot make the findings specified in Section 21081 of the Public Resources Code.

(3) Oak tree removal contemplated in the permit would remove more than 10 percent of the oak canopy cover that existed on January 1, 2015.

(4) Oak or riparian hardwood trees would be removed within 50 feet of any watercourse, lake, or reservoir.

(5) There is evidence that the information contained in the application or oak removal plan is, in a material way, either incorrect, incomplete, or misleading, or is insufficient to evaluate the plan's environmental effects.

(6) The applicant does not have a legal or equitable interest in the property subject to the application.

(7) Implementation of the oak removal plan as proposed would cause a violation of any applicable law.

(b) Paragraphs (3) and (4) of subdivision (a) do not apply to the removal of dead trees or the removal of oak trees to create legally required fire breaks, fuel breaks, and rights-of-way.

1633. (a) The applicant may appeal the director's denial of an oak removal permit to the commission by filing a notice of appeal with the department within 15 days after notice of the denial. The commission shall hear the appeal within 60 days after the appeal is filed unless a later hearing date is mutually agreed upon by the applicant and the commission.

(b) An applicant whose application for an oak removal permit has been denied is entitled to a hearing before the commission conducted pursuant to Chapter 5 (commencing with Section 11500) of Part 1 of Division 3 of Title 2 of the Government Code. The commission shall hear and decide appeals de novo.

1634. (a) A person may maintain an action for declaratory and equitable relief to restrain any violation of this chapter. On a prima

facie showing of a violation of this chapter, preliminary equitable relief shall be issued to restrain any further violation of this chapter.

(b) Oak removal permits approved pursuant to this chapter are construction projects as that term is used in Section 529.1 of the Code of Civil Procedure. In any civil action brought pursuant to this chapter in which a temporary restraining order, preliminary injunction, or permanent injunction is sought, it is not necessary to allege or prove at any stage of the proceeding either of the following:

(1) That irreparable damage will occur if the temporary restraining order, preliminary injunction, or permanent injunction is not issued.

(2) The remedy at law is inadequate.

1635. The permittee shall cause an approved oak removal permit to be recorded in each county in which the property is located before beginning any operations contemplated under the permit.

1636. (a) A person who violates this chapter is subject to a civil penalty of not more than twenty-five thousand dollars ($25,000) for each violation.

(b) The civil penalty imposed for each violation pursuant to this section is separate from, and in addition to, any other civil penalty imposed for a violation pursuant to this section or any other provision of law.

(c) In determining the amount of any civil penalty imposed pursuant to this section, the court shall take into consideration the nature, circumstance, extent, and gravity of the violation. In making this determination, the court may consider whether the effects of the violation may be reversed or mitigated, and with respect to the defendant, the ability to pay, any voluntary mitigation efforts undertaken, any prior history of violations, the gravity of the behavior, the economic benefit, if any, resulting from the violation, and any other matters the court determines justice may require.

(d) Every civil action brought under this section shall be brought by the Attorney General upon complaint by the department, or by the district attorney or city attorney in the name of the people of the State of California and any actions relating to the same violation may be joined or consolidated.

(e) All civil penalties collected pursuant to this section shall not be considered fines or forfeitures as described in Section 13003 and shall be apportioned in the following manner:

(1) Fifty percent shall be distributed to the county treasurer of the county in which the action is prosecuted. Amounts paid to the county treasurer shall be deposited in the county fish and wildlife propagation fund established pursuant to Section 13100.

(2) Fifty percent shall be distributed to the Wildlife Conservation Board for deposit in the Oak Woodlands Conservation Fund created by Section 1363. These funds may be expended to cover the costs of any legal actions or for any other law enforcement purpose consistent with Section 9 of Article XVI of the California Constitution.

SEC. 2. Section 21083.4 of the Public Resources Code is repealed.

~~21083.4. (a) For purposes of this section, "oak" means a native tree species in the genus Quercus, not designated as Group A or Group B commercial species pursuant to regulations adopted by the State Board of Forestry and Fire Protection pursuant to Section 4526, and that is 5 inches or more in diameter at breast height.~~

~~(b) As part of the determination made pursuant to Section 21080.1, a county shall determine whether a project within its jurisdiction may result in a conversion of oak woodlands that will have a significant effect on the environment. If a county determines that there may be a significant effect to oak woodlands, the county shall require one or more of the following oak woodlands mitigation alternatives to mitigate the significant effect of the conversion of oak woodlands:~~

~~(1) Conserve oak woodlands, through the use of conservation easements.~~

~~(2) (A) Plant an appropriate number of trees, including maintaining plantings and replacing dead or diseased trees.~~

~~(B) The requirement to maintain trees pursuant to this paragraph terminates seven years after the trees are planted.~~

~~(C) Mitigation pursuant to this paragraph shall not fulfill more than one-half of the mitigation requirement for the project.~~

~~(D) The requirements imposed pursuant to this paragraph also may be used to restore former oak woodlands.~~

~~(3) Contribute funds to the Oak Woodlands Conservation Fund, as established under subdivision (a) of Section 1363 of the Fish~~

~~and Game Code, for the purpose of purchasing oak woodlands conservation easements, as specified under paragraph (1) of subdivision (d) of that section and the guidelines and criteria of the Wildlife Conservation Board. A project applicant that contributes funds under this paragraph shall not receive a grant from the Oak Woodlands Conservation Fund as part of the mitigation for the project.~~

~~(4) Other mitigation measures developed by the county.~~

~~(c) Notwithstanding subdivision (d) of Section 1363 of the Fish and Game Code, a county may use a grant awarded pursuant to the Oak Woodlands Conservation Act (Article 3.5 (commencing with Section 1360) of Chapter 4 of Division 2 of the Fish and Game Code) to prepare an oak conservation element for a general plan, an oak protection ordinance, or an oak woodlands management plan, or amendments thereto, that meets the requirements of this section.~~

~~(d) The following are exempt from this section:~~

~~(1) Projects undertaken pursuant to an approved Natural Community Conservation Plan or approved subarea plan within an approved Natural Community Conservation Plan that includes oaks as a covered species or that conserves oak habitat through natural community conservation preserve designation and implementation and mitigation measures that are consistent with this section.~~

~~(2) Affordable housing projects for lower income households, as defined pursuant to Section 50079.5 of the Health and Safety Code, that are located within an urbanized area, or within a sphere of influence as defined pursuant to Section 56076 of the Government Code.~~

~~(3) Conversion of oak woodlands on agricultural land that includes land that is used to produce or process plant and animal products for commercial purposes.~~

~~(4) Projects undertaken pursuant to Section 21080.5 of the Public Resources Code.~~

~~(e) (1) A lead agency that adopts, and a project that incorporates, one or more of the measures specified in this section to mitigate the significant effects to oaks and oak woodlands shall be deemed to be in compliance with this division only as it applies to effects on oaks and oak woodlands.~~

~~(2) The Legislature does not intend this section to modify requirements of this division, other than with regard to effects on oaks and oak woodlands.~~

~~(f) This section does not preclude the application of Section 21081 to a project.~~

~~(g) This section, and the regulations adopted pursuant to this section, shall not be construed as a limitation on the power of a public agency to comply with this division or any other provision of law.~~

SEC. 3. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because the only costs that may be incurred by a local agency or school district will be incurred because this act creates a new crime or infraction, eliminates a crime or infraction, or changes the penalty for a crime or infraction, within the meaning of Section 17556 of the Government Code, or changes the definition of a crime within the meaning of Section 6 of Article XIII B of the California Constitution.

O

| ID | iceCodeNu | ient Recor | ecordOrde | Macrogroup Order | Alliance | Level 1 - | Level 2 - | Level 3 - | Level 4 - | Macrogro | Scientific Name | Common Name | Global | CaCode |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2543 | 344 | 1786 | 1946 | 17 | Calamagrostis nutkaensis | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | Coastal Terrace Prairie | | G2 S2.1 | |
| 2543 | 344 | 1786 | 1947 | 17 | Calamagrostis nutkaensis | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Calamagrostis nutkaensis* (Pacific reed grass meadows) Alliance | Pacific reed grass meadows | G4 S2 | *41.190.00 |
| 2544 | 344 | 1787 | 1948 | 17 | Calamagrostis nutkaensis | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Calamagrostis nutkaensis* | | | *41.190.03 |
| 2545 | 344 | 1788 | 1949 | 17 | Calamagrostis nutkaensis | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Calamagrostis nutkaensis - Baccharis pilularis* | | | *41.190.01 |
| 2546 | 344 | 1789 | 1950 | 17 | Calamagrostis nutkaensis | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Calamagrostis nutkaensis - Carex obnupta. - Juncus spp.* | | | *41.190.02 |
| 2716 | 345 | 1790 | 1951 | 17 | Danthonia californica | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Danthonia californica* (California oat grass prairie) Provisional Alliance | California oat grass prairie | G4 S3 | *41.050.00 |
| 2717 | 345 | 1791 | 1952 | 17 | Danthonia californica | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Danthonia californica* | | | *41.050.05 |
| 2718 | 345 | 1792 | 1953 | 17 | Danthonia californica | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Danthonia californiaca - Aira caryophyllea* | | | *41.050.04 |
| 2719 | 345 | 1793 | 1954 | 17 | Danthonia californica | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Danthonia californica - Arrhenatherum elatius* | | | *41.050.01 |
| 2720 | 345 | 1794 | 1955 | 17 | Danthonia californica | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Danthonia californica - Elymus elymoides* | | | *41.050.02 |
| 2721 | 345 | 1795 | 1956 | 17 | Danthonia californica | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Danthonia californica - Muhlenbergia filiformis* | | | *41.050.03 |
| 2828 | 346 | 1796 | 1957 | 17 | Festuca rubra | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Festuca rubra* (Red fescue grassland) Alliance | Red fescue grassland | G4 S3? | *41.255.00 |
| 2829 | 346 | 1797 | 1958 | 17 | Festuca rubra | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Festuca rubra* | | | *41.255.01 |
| 1709 | 348 | 1798 | 1959 | 17 | Corylus cornuta var. californica | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Corylus cornuta / Polystichum munitum* | | | *37.950.01 |
| 1711 | 348 | 1799 | 1960 | 17 | Corylus cornuta var. californica | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Corylus cornuta var. californica* (Hazelnut scrub) Alliance | Hazelnut scrub | G3 S2? | *37.950.00 |
| 2204 | 349 | 1800 | 1961 | 17 | Rubus (parviflorus, spectabilis, ursinus) | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Rubus (parviflorus, spectabilis, ursinus)* (Coastal brambles) Alliance | Coastal brambles | G4 S3 | *63.901.00 |
| 2205 | 349 | 1801 | 1962 | 17 | Rubus (parviflorus, spectabilis, ursinus) | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Gaultheria shallon - Rubus spectabiis - Rubus parviflorus* | | | *63.901.01 |
| 2206 | 349 | 1802 | 1963 | 17 | Rubus (parviflorus, spectabilis, ursinus) | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Rubus parviflorus* | | | *63.901.03 |
| 2207 | 349 | 1803 | 1964 | 17 | Rubus (parviflorus, spectabilis, ursinus) | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Rubus parviflorus - Rubus spectabilis - Rubus ursinus* | | | *63.901.02 |
| 2208 | 349 | 1804 | 1965 | 17 | Rubus (parviflorus, spectabilis, ursinus) | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Rubus spectabilis* | | | *63.901.04 |
| 2209 | 349 | 1805 | 1966 | 17 | Rubus (parviflorus, spectabilis, ursinus) | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Rubus ursinus* | | | *63.901.05 |
| 2345 | 350 | 1806 | 1967 | 17 | Toxicodendron diversilobum | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Toxicodendron diversilobum* (Poison oak scrub) Alliance | Poison oak scrub | G4 S4 | 37.940.00 |
| 2345 | 350 | 1806 | 1968 | 17 | Toxicodendron diversilobum | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | Poison Oak Chaparral | | G3 S3.3 | |
| 2346 | 350 | 1807 | 1969 | 17 | Toxicodendron diversilobum | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Toxicodendron diversilobum - Artemisia californica / Leymus condensatus* | | | 37.940.02 |
| 2347 | 350 | 1808 | 1970 | 17 | Toxicodendron diversilobum | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Toxicodendron diversilobum - Baccharis pilularis - Rubus parviflorus* | | | 37.940.01 |
| 2348 | 350 | 1809 | 1971 | 17 | Toxicodendron diversilobum | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Toxicodendron diversilobum - Diplacus aurantiacus* | | | 37.940.03 |
| 2349 | 350 | 1810 | 1972 | 17 | Toxicodendron diversilobum | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Toxicodendron diversilobum - Philadelphus lewisii* | | | 37.940.04 |
| 2350 | 350 | 1811 | 1973 | 17 | Toxicodendron diversilobum | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Toxicodendron diversilobum / Bromus hordeaceus - Micropus californicus* | | | 37.940.05 |
| 2351 | 350 | 1812 | 1974 | 17 | Toxicodendron diversilobum | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Toxicodendron diversilobum / Bromus hordeaceus - Vicia villosa - Madia gracilis* | | | 37.940.06 |
| 2352 | 350 | 1813 | 1975 | 17 | Toxicodendron diversilobum | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Toxicodendron diversilobum / herbaceous* | | | 37.940.08 |
| 2353 | 350 | 1814 | 1976 | 17 | Toxicodendron diversilobum | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Toxicodendron diversilobum / Pteridium aquilinum* | | | 37.940.07 |
| 2211 | 352 | 1815 | 1977 | 17 | Rubus armeniacus | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Rubus armeniacus* (Himalayan black berry brambles) Semi-natural Stands | Himalayan black berry brambles | | 63.906.00 |
| 2212 | 352 | 1816 | 1978 | 17 | Rubus armeniacus | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Rubus armeniacus* | | | 63.906.01 |
| 2213 | 352 | 1817 | 1979 | 17 | Rubus armeniacus | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG050. | *Rubus armeniacus - Rubus ursinus* | | | 63.906.02 |
| | | | | | | | | | | | | | | |
| 1704 | 113 | 911 | 998 | 8 | Cornus sericea | 1. | 1.C. | 1.C.3. | 1.C.3.b. | MG031. | *Cornus sericea* (Red osier thickets) Alliance | Red osier thickets | G4 S3? | *80.100.00 |
| 1705 | 113 | 912 | 999 | 8 | Cornus sericea | 1. | 1.C. | 1.C.3. | 1.C.3.b. | MG031. | *Cornus sericea* | | | *80.100.02 |
| | | | 1055 | | | 1. | 1.C. | 1.C.3. | 1.C.3.b. | MG034. | North Coast Riparian Scrub | | G3 S3.2 | |
| 2024 | 133 | 965 | 1056 | 9 | Morella californica | 1. | 1.C. | 1.C.3. | 1.C.3.b. | MG034. | *Morella californica* (Wax myrtle scrub) Alliance | Wax myrtle scrub | G3 S3 | *37.930.00 |
| 2025 | 133 | 966 | 1057 | 9 | Morella californica | 1. | 1.C. | 1.C.3. | 1.C.3.b. | MG034. | *Morella californica* | | | *37.930.01 |
| 2245 | 134 | 967 | 1058 | 9 | Salix hookeriana | 1. | 1.C. | 1.C.3. | 1.C.3.b. | MG034. | *Salix hookeriana* (Coastal dune willow thickets) Alliance | Coastal dune willow thickets | G4 S3 | *61.203.00 |
| 2246 | 134 | 968 | 1059 | 9 | Salix hookeriana | 1. | 1.C. | 1.C.3. | 1.C.3.b. | MG034. | *Salix hookeriana* | | | *61.203.01 |
| 2247 | 134 | 969 | 1060 | 9 | Salix hookeriana | 1. | 1.C. | 1.C.3. | 1.C.3.b. | MG034. | *Salix hookeriana / Rubus ursinus* | | | *61.203.02 |
| 2294 | 135 | 970 | 1061 | 9 | Salix sitchensis | 1. | 1.C. | 1.C.3. | 1.C.3.b. | MG034. | *Salix sitchensis* (Sitka willow thickets) Provisional Alliance | Sitka willow thickets | G4 S3? | *61.206.00 |
| | | | | | | | | | | | | | | |
| 372 | 84 | 760 | 826 | 4 | Picea sitchensis | 1. | 1.C. | 1.C.2. | 1.C.2.b. | MG024. | *Picea sitchensis* (Sitka spruce forest) Alliance | Sitka spruce forest | G5 S2 | *83.200.00 |
| | | | 827 | | | 1. | 1.C. | 1.C.2. | 1.C.2.b. | MG024. | Sitka Spruce Forest | | G1 S1.1 | |
| | | | 828 | 4 | Picea sitchensis | 1. | 1.C. | 1.C.2. | 1.C.2.b. | MG024. | Sitka Spruce Grand Fir Forest | | G4 S1.1 | |
| 373 | 84 | 761 | 829 | 4 | Picea sitchensis | 1. | 1.C. | 1.C.2. | 1.C.2.b. | MG024. | *Picea sitchensis - Tsuga heterophylla* | | | *83.200.04 |
| 374 | 84 | 762 | 830 | 4 | Picea sitchensis | 1. | 1.C. | 1.C.2. | 1.C.2.b. | MG024. | *Picea sitchensis / Maianthemum dilatatum* | | | *83.200.01 |
| 375 | 84 | 763 | 831 | 4 | Picea sitchensis | 1. | 1.C. | 1.C.2. | 1.C.2.b. | MG024. | *Picea sitchensis / Polystichum munitum* | | | *83.200.03 |
| 376 | 84 | 764 | 832 | 4 | Picea sitchensis | 1. | 1.C. | 1.C.2. | 1.C.2.b. | MG024. | *Picea sitchensis / Rubus spectabilis* | | | *83.200.02 |
| 426 | 85 | 765 | 833 | 4 | Pinus contorta var. contorta | 1. | 1.C. | 1.C.2. | 1.C.2.b. | MG024. | *Pinus contorta var. contorta* (Beach pine forest) Alliance | Beach pine forest | G5 S3 | *87.060.00 |
| 426 | 85 | 765 | 834 | 4 | Pinus contorta var. contorta | 1. | 1.C. | 1.C.2. | 1.C.2.b. | MG024. | Beach Pine Forest | | G4 S2.1 | |
| 427 | 85 | 766 | 835 | 4 | Pinus contorta var. contorta | 1. | 1.C. | 1.C.2. | 1.C.2.b. | MG024. | *Pinus contorta var. contorta* | | | *87.060.01 |
| 428 | 85 | 767 | 836 | 4 | Pinus contorta var. contorta | 1. | 1.C. | 1.C.2. | 1.C.2.b. | MG024. | *Pinus contorta ssp. contorta - Picea sitchensis* | | | *87.060.02 |
| 1086 | 86 | 768 | 837 | 4 | Sequoia sempervirens | 1. | 1.C. | 1.C.2. | 1.C.2.b. | MG024. | *Sequoia sempervirens* (Redwood forest) Alliance | Redwood forest | G3 S3 | *86.100.00 |
| | | | | | | | | | | | | | | |
| 698 | 139 | 1003 | 1096 | 9 | Populus trichocarpa | 1. | 1.C. | 1.C.3. | 1.C.3.b. | MG034. | *Populus trichocarpa* (Black cottonwood forest) Alliance | Black cottonwood forest | G5 S3 | *61.120.00 |
| 698 | 139 | 1003 | 1098 | 9 | Populus trichocarpa | 1. | 1.C. | 1.C.3. | 1.C.3.b. | MG034. | North Coast Black Cottonwood Riparian Forest | | G1 S1.1 | |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2179 | 157 | 1098 | 1211 | 10 | Rhododendron occidentale | 1. | 1.C. | 1.C.3. | 1.C.3.c. | MG036. | *Rhododendron occidentale* (Western azalea patches) Provisional Alliance | Western azalea patches | G3 S2? | *63.310.00 |
| 1864 | 329 | 1746 | 1904 | 16 | Holodiscus discolor | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG049. | *Holodiscus discolor* (Ocean spray brush) Alliance | Ocean spray brush | G4 S3 | *39.100.00 |
| 1867 | 329 | 1749 | 1907 | 16 | | 2. | 2.C. | 2.C.1. | 2.C.1.a. | MG049. | *Holodiscus discolor - Sambucus racemosa* | | | *39.100.06 |
| 2175 | 399 | 1959 | 2148 | 21 | Rhododendron neoglandulosum | 2. | 2.C. | 2.C.4. | 2.C.4.a. | MG063. | Ledum Swamp | | G2 S2.1 | |
| 176 | 52 | 441 | 478 | 2 | Alnus rubra | 1. | 1.C. | 1.C.2. | 1.C.2.b. | MG023. | *Alnus rubra / Gaultheria shallon* | | | *61.410.02 |
| 177 | 52 | 442 | 479 | 2 | Alnus rubra | 1. | 1.C. | 1.C.2. | 1.C.2.b. | MG023. | *Alnus rubra / Rubus spectabilis* | | | 61.410.07 |
| 178 | 52 | 443 | 480 | 2 | Alnus rubra | 1. | 1.C. | 1.C.2. | 1.C.2.b. | MG023. | Red Alder Riparian Forest | | G3 S2.2 | |
| 178 | 52 | 443 | 481 | 2 | Alnus rubra | 1. | 1.C. | 1.C.2. | 1.C.2.b. | MG023. | *Alnus rubra / Rubus spectabilis - Sambucus racemosa* | | | *61.410.06 |

| CTT Code | Invasive Species Rank | Classification Level | ssification Lev | CaCode | Group | ModifiedCaCode | Initial | Other |
|---|---|---|---|---|---|---|---|---|
| *CTT41100CA | | | | | | | | |
| | | Alliance | | *41.190.00 | Vanvouverian coastal grassland | 41.190.00 | Hektner and | |
| | | Association | | *41.190.03 | Vanvouverian coastal grassland | | Hektner and | |
| | | Association | | *41.190.01 | Vanvouverian coastal grassland | | Keeler-Wolf et | |
| | | Association | | *41.190.02 | Vanvouverian coastal grassland | | Keeler-Wolf et | |
| | | Provisional Alliance | | *41.050.00 | Vanvouverian coastal grassland | 41.050.00 | S. Smith 1998 | Keeler- |
| | | Association | | *41.050.05 | Vanvouverian coastal grassland | | S. Smith 1998 | |
| | | Association | | *41.050.04 | Vanvouverian coastal grassland | | Keeler-Wolf et | Ford and |
| | | Association | | *41.050.01 | Vanvouverian coastal grassland | | Grenier 1989 | |
| | | Association | | *41.050.02 | Vanvouverian coastal grassland | | Stuart et al. | |
| | | Association | | *41.050.03 | Vanvouverian coastal grassland | | Helms and | |
| | | Alliance | | *41.255.00 | Vanvouverian coastal grassland | 41.255.00 | Keeler-Wolf et | |
| | | Association | | *41.255.01 | Vanvouverian coastal grassland | | Walsh 1995b | Keeler- |
| | | Association | | *37.950.01 | Vancouverian coastal deciduous scrub | | Keeler-Wolf et | Zimmerm |
| | | Alliance | | *37.950.00 | Vancouverian coastal deciduous scrub | 37.950.00 | Keeler-Wolf et | Anderson |
| | | Alliance | | *63.901.00 | Vancouverian coastal deciduous scrub | 63.901.00 | | |
| | | Association | | *63.901.01 | Vancouverian coastal deciduous scrub | | Belsher 1999 | |
| | | Association | | *63.901.03 | Vancouverian coastal deciduous scrub | | Belsher 1999 | |
| | | Association | | *63.901.02 | Vancouverian coastal deciduous scrub | | Belsher 1999 | |
| | | Association | | *63.901.04 | Vancouverian coastal deciduous scrub | | Belsher 1999 | Keeler- |
| | | Association | | *63.901.05 | Vancouverian coastal deciduous scrub | | Heady et al. | Duebendo |
| | | Alliance | | 37.940.00 | Vancouverian coastal deciduous scrub | | Keeler-Wolf et | |
| *CTT37F00CA | | | | | | | | |
| | | Association | | 37.940.02 | Vancouverian coastal deciduous scrub | | Keeler-Wolf | |
| | | Association | | 37.940.01 | Vancouverian coastal deciduous scrub | | Keeler-Wolf et | |
| | | Association | | 37.940.03 | Vancouverian coastal deciduous scrub | | Keeler-Wolf | |
| | | Association | | 37.940.04 | Vancouverian coastal deciduous scrub | | Potter 2005 | |
| | | Association | | 37.940.05 | Vancouverian coastal deciduous scrub | | Evens et al. | |
| | | Association | | 37.940.06 | Vancouverian coastal deciduous scrub | | Evens et al. | |
| | | Association | | 37.940.08 | Vancouverian coastal deciduous scrub | | Klein et al. | |
| | | Association | | 37.940.07 | Vancouverian coastal deciduous scrub | | Evens and San | Howard |
| | Invasive Sp Ranking: Cal-I | Semi-natural Stands | | 63.906.00 | Naturalized non-native deciduous scrub | | Keeler-Wolf | |
| | | Stand Type | | 63.906.01 | Naturalized non-native deciduous scrub | | Keeler-Wolf | Hickson |
| | | Stand Type | | 63.906.02 | Naturalized non-native deciduous scrub | | Potter 2005 | Tirmenstei |
| | | Alliance | | *80.100.00 | Western dogwood thicket | 80.100.00 | S. Smith 1998 | Crane |
| | | Association | | *80.100.02 | Western dogwood thicket | | S. Smith 1998 | |
| *CTT63100CA | | | | | | | | |
| | | Alliance | | *37.930.00 | Vancouverian coastal riparian scrub | 37.930.00 | Keeler-Wolf et | |
| | | Association | | *37.930.01 | Vancouverian coastal riparian scrub | | Keeler-Wolf et | |
| | | Alliance | | *61.203.00 | Vancouverian coastal riparian scrub | 61.203.00 | Cheatham and | us 1997, |
| | | Association | | *61.203.01 | Vancouverian coastal riparian scrub | | Duebendorfer | Hitchcock |
| | | Association | | *61.203.02 | Vancouverian coastal riparian scrub | | Imper et al. | Paysen et |
| | | Provisional Alliance | | *61.206.00 | Vancouverian coastal riparian scrub | 61.206.00 | Brayshaw 1976 | Paysen et |
| | | Alliance | | *83.200.00 | Vancouverian hypermaritime lowland rai | 83.200.00 | | |
| *CTT82110CA | | | | | | | | |
| CTT82100CA | | | | | | | | |
| | | Association | | *83.200.04 | Vancouverian hypermaritime lowland rainforest | | Westman and | Zinke |
| | | Association | | *83.200.01 | Vancouverian hypermaritime lowland rainforest | | Imper and | Minore |
| | | Association | | *83.200.03 | Vancouverian hypermaritime lowland rainforest | | Imper and | Minore |
| | | Association | | *83.200.02 | Vancouverian hypermaritime lowland rainforest | | Imper and | Minore |
| | | Alliance | | *87.060.00 | Vancouverian hypermaritime lowland rai | 87.060.00 | Barry 1989a | Barry |
| *CTT83110CA | | | | | | | | |
| | | Association | | *87.060.01 | Vancouverian hypermaritime lowland rainforest | | cf. Green 1999 | Griffin |
| | | Association | | *87.060.02 | Vancouverian hypermaritime lowland rainforest | | Green 1999 | |
| | | Alliance | | *86.100.00 | Vancouverian hypermaritime lowland rai | 86.100.00 | Keeler-Wolf et | Evens |
| | | Alliance | | *61.120.00 | Vancouverian riparian deciduous forest | 61.120.00 | Potter 2005 | |
| *CTT61110CA | | | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Provisional Alliance | *63.310.00 | Southwestern North American riparian/w | 63.310.00 | Kagan et al. | Sawyer |
| | Alliance | *39.100.00 | Sierran montane rock crevice and outcr | 39.100.00 | Barry 1989a | Allen et al. |
| | Association | *39.100.06 | Sierran montane rock crevice and outcrop scrub and herbaceous | | Keeler-Wolf et | Morgan |
| *CTT5261ACA | | | | | | |
| | Association | *61.410.02 | Upland Vancouverian mixed woodland and forest | | Stuart et al. | |
| | Association | 61.410.07 | Upland Vancouverian mixed woodland and forest | | Taylor 1982 | Uchytil |
| *CTT61130CA | | | | | | |
| | Association | *61.410.06 | Upland Vancouverian mixed woodland and forest | | Keeler-Wolf et | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1709 | 348 | 1798 | 1959 | 17 | Corylus cornuta var. californica | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.1. | 2.C.1.a. | MG050. |
| 1711 | 348 | 1799 | 1960 | 17 | Corylus cornuta var. californica | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.1. | 2.C.1.a. | MG050. |
| 2398 | 377 | 1874 | 2044 | 20 | Abronia latifolia - Ambrosia chamissonis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2398 | 377 | 1874 | 2045 | 20 | Abronia latifolia - Ambrosia chamissonis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2398 | 377 | 1874 | 2046 | 20 | Abronia latifolia - Ambrosia chamissonis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| | | | 2047 | | | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2398 | 377 | 1874 | 2048 | 20 | Abronia latifolia - Ambrosia chamissonis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2398 | 377 | 1874 | 2049 | 20 | Abronia latifolia - Ambrosia chamissonis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2398 | 377 | 1874 | 2050 | 20 | Abronia latifolia - Ambrosia chamissonis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2398 | 377 | 1874 | 2051 | 20 | Abronia latifolia - Ambrosia chamissonis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2398 | 377 | 1874 | 2052 | 20 | Abronia latifolia - Ambrosia chamissonis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1839 | 384 | 1931 | 2053 | 20 | Garrya elliptica | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2398 | 377 | 1874 | 2054 | 20 | Abronia latifolia - Ambrosia chamissonis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2398 | 377 | 1874 | 2055 | 20 | Abronia latifolia - Ambrosia chamissonis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2399 | 377 | 1875 | 2056 | 20 | Abronia latifolia - Ambrosia chamissonis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2400 | 377 | 1876 | 2057 | 20 | Abronia latifolia - Ambrosia chamissonis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2401 | 377 | 1877 | 2058 | 20 | Abronia latifolia - Ambrosia chamissonis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2402 | 377 | 1878 | 2059 | 20 | Abronia latifolia - Ambrosia chamissonis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2403 | 377 | 1879 | 2060 | 20 | Abronia latifolia - Ambrosia chamissonis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2404 | 377 | 1880 | 2061 | 20 | Abronia latifolia - Ambrosia chamissonis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2405 | 377 | 1881 | 2062 | 20 | Abronia latifolia - Ambrosia chamissonis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2406 | 377 | 1882 | 2063 | 20 | Abronia latifolia - Ambrosia chamissonis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2407 | 377 | 1883 | 2064 | 20 | Abronia latifolia–Ambrosia chamissonis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2408 | 377 | 1884 | 2065 | 20 | Abronia latifolia - Ambrosia chamissonis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2409 | 377 | 1885 | 2066 | 20 | Abronia latifolia–Ambrosia chamissonis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2410 | 377 | 1886 | 2067 | 20 | Abronia latifolia - Ambrosia chamissonis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2528 | 377 | 1887 | 2068 | 20 | Abronia latifolia–Ambrosia chamissonis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2529 | 377 | 1888 | 2069 | 20 | Abronia latifolia–Ambrosia chamissonis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2637 | 378 | 1889 | 2070 | 20 | Carex pansa | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2966 | 379 | 1890 | 2071 | 20 | Leymus mollis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2967 | 379 | 1891 | 2072 | 20 | Leymus mollis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2968 | 379 | 1892 | 2073 | 20 | Leymus mollis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2969 | 379 | 1893 | 2074 | 20 | Leymus mollis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1517 | 381 | 1894 | 2075 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1517 | 381 | 1894 | 2076 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1517 | 381 | 1894 | 2077 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1518 | 381 | 1895 | 2078 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1519 | 381 | 1896 | 2079 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1520 | 381 | 1897 | 2080 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1521 | 381 | 1898 | 2081 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1522 | 381 | 1899 | 2082 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1523 | 381 | 1900 | 2083 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1524 | 381 | 1901 | 2084 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1525 | 381 | 1902 | 2085 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1526 | 381 | 1903 | 2086 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1527 | 381 | 1904 | 2087 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1528 | 381 | 1905 | 2088 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1529 | 381 | 1906 | 2089 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1530 | 381 | 1907 | 2090 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1531 | 381 | 1908 | 2091 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1532 | 381 | 1909 | 2092 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1533 | 381 | 1910 | 2093 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1534 | 381 | 1911 | 2094 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1535 | 381 | 1912 | 2095 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1536 | 381 | 1913 | 2096 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1537 | 381 | 1914 | 2097 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1538 | 381 | 1915 | 2098 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1539 | 381 | 1916 | 2099 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1540 | 381 | 1917 | 2100 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1541 | 381 | 1918 | 2101 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1542 | 381 | 1919 | 2102 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1543 | 381 | 1920 | 2103 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1544 | 381 | 1921 | 2104 | 20 | Baccharis pilularis | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |

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|---|---|---|---|---|---|---|---|---|---|---|
| 1639 | 382 | 1922 | 2105 | 20 | Ceanothus thyrsiflorus | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1639 | 382 | 1922 | 2106 | 20 | Ceanothus thyrsiflorus | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1640 | 382 | 1923 | 2107 | 20 | Ceanothus thyrsiflorus | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1641 | 382 | 1924 | 2108 | 20 | Ceanothus thyrsiflorus | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1642 | 382 | 1925 | 2109 | 20 | Ceanothus thyrsiflorus | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1833 | 383 | 1926 | 2110 | 20 | Frangula californica | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1834 | 383 | 1927 | 2111 | 20 | Frangula californica | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1835 | 383 | 1928 | 2112 | 20 | Frangula californica | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1836 | 383 | 1929 | 2113 | 20 | Frangula californica | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1837 | 383 | 1930 | 2114 | 20 | Frangula californica | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1839 | 384 | 1931 | 2115 | 20 | Garrya elliptica | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1839 | 384 | 1931 | 2116 | 20 | Garrya elliptica | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1839 | 384 | 1931 | 2117 | 20 | Garrya elliptica | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1985 | 385 | 1932 | 2118 | 20 | Lupinus arboreus | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1986 | 385 | 1933 | 2119 | 20 | Lupinus arboreus | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1987 | 385 | 1934 | 2120 | 20 | Lupinus arboreus | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1988 | 385 | 1935 | 2121 | 20 | Lupinus arboreus | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1989 | 385 | 1936 | 2122 | 20 | Lupinus arboreus | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1990 | 385 | 1937 | 2123 | 20 | Lupinus arboreus | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1770 | 386 | 1938 | 2124 | 20 | Lupinus chamissonis - Ericameria ericoides | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1992 | 386 | 1939 | 2125 | 20 | Lupinus chamissonis - Ericameria ericoides | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1993 | 386 | 1940 | 2126 | 20 | Lupinus chamissonis - Ericameria ericoides | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 1994 | 386 | 1941 | 2127 | 20 | Lupinus chamissonis - Ericameria ericoides | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2366 | 387 | 1942 | 2128 | 20 | Venegasia carpesioides | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2367 | 387 | 1943 | 2129 | 20 | Venegasia carpesioides | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2433 | 389 | 1944 | 2130 | 20 | Ammophila arenaria | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2434 | 389 | 1945 | 2131 | 20 | Ammophila arenaria | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2435 | 389 | 1946 | 2132 | 20 | Ammophila arenaria | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2436 | 389 | 1947 | 2133 | 20 | Ammophila arenaria | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2437 | 389 | 1948 | 2134 | 20 | Ammophila arenaria | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2527 | 390 | 1949 | 2135 | 20 | Cakile (edentula, maritima) | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2671 | 391 | 1950 | 2136 | 20 | Carpobrotus edulis or Other Ice Plants | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.3. | 2.C.3.b. | MG058. |
| 2753 | 465 | 2178 | 2380 | 25 | Distichlis spicata | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2754 | 465 | 2179 | 2381 | 25 | Distichlis spicata | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2755 | 465 | 2180 | 2382 | 25 | Distichlis spicata | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2756 | 465 | 2181 | 2383 | 25 | Distichlis spicata | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2757 | 465 | 2182 | 2384 | 25 | Distichlis spicata | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2758 | 465 | 2183 | 2385 | 25 | Distichlis spicata | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2759 | 465 | 2184 | 2386 | 25 | Distichlis spicata | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2760 | 465 | 2185 | 2387 | 25 | Distichlis spicata | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2761 | 465 | 2186 | 2388 | 25 | Distichlis spicata | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2762 | 465 | 2187 | 2389 | 25 | Distichlis spicata | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2763 | 465 | 2188 | 2390 | 25 | Distichlis spicata | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2764 | 465 | 2189 | 2391 | 25 | Distichlis spicata | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2765 | 465 | 2190 | 2392 | 25 | Distichlis spicata | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2766 | 465 | 2191 | 2393 | 25 | Distichlis spicata | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2767 | 465 | 2192 | 2394 | 25 | Distichlis spicata | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2768 | 465 | 2193 | 2395 | 25 | Distichlis spicata | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2769 | 465 | 2194 | 2396 | 25 | Distichlis spicata | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2770 | 465 | 2195 | 2397 | 25 | Distichlis spicata | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2522 | 466 | 2196 | 2398 | 25 | Bulboschoenus maritimus | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2523 | 466 | 2197 | 2399 | 25 | Bulboschoenus maritimus | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2524 | 466 | 2198 | 2400 | 25 | Bulboschoenus maritimus | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2525 | 466 | 2199 | 2401 | 25 | Bulboschoenus maritimus | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3135 | 467 | 2200 | 2402 | 25 | Sarcocornia pacifica (Salicornia depressa) | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3136 | 467 | 2201 | 2403 | 25 | Sarcocornia pacifica (Salicornia depressa) | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3137 | 467 | 2202 | 2404 | 25 | Sarcocornia pacifica (Salicornia depressa) | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3138 | 467 | 2203 | 2405 | 25 | Sarcocornia pacifica (Salicornia depressa) | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3139 | 467 | 2204 | 2406 | 25 | Sarcocornia pacifica (Salicornia depressa) | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3140 | 467 | 2205 | 2407 | 25 | Sarcocornia pacifica (Salicornia depressa) | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3141 | 467 | 2206 | 2408 | 25 | Sarcocornia pacifica (Salicornia depressa) | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3142 | 467 | 2207 | 2409 | 25 | Sarcocornia pacifica (Salicornia depressa) | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3143 | 467 | 2208 | 2410 | 25 | Sarcocornia pacifica (Salicornia depressa) | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |

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|---|---|---|---|---|---|---|---|---|---|---|
| 3144 | 467 | 2209 | 2411 | 25 | Sarcocornia pacifica (Salicornia depressa) | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3145 | 467 | 2210 | 2412 | 25 | Sarcocornia pacifica (Salicornia depressa) | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3147 | 467 | 2212 | 2413 | 25 | Sarcocornia pacifica (Salicornia depressa) | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3148 | 467 | 2213 | 2414 | 25 | Sarcocornia pacifica (Salicornia depressa) | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3149 | 467 | 2214 | 2415 | 25 | Sarcocornia pacifica (Salicornia depressa) | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3150 | 467 | 2215 | 2416 | 25 | Sarcocornia pacifica (Salicornia depressa) | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3151 | 467 | 2216 | 2417 | 25 | Sarcocornia pacifica (Salicornia depressa) | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3152 | 467 | 2217 | 2418 | 25 | Sarcocornia pacifica (Salicornia depressa) | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3153 | 467 | 2218 | 2419 | 25 | Sarcocornia pacifica (Salicornia depressa) | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3154 | 467 | 2219 | 2420 | 25 | Sarcocornia pacifica (Salicornia depressa) | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3155 | 467 | 2220 | 2421 | 25 | Sarcocornia pacifica (Salicornia depressa) | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3156 | 467 | 2221 | 2422 | 25 | Sarcocornia pacifica (Salicornia depressa) | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3217 | 468 | 2222 | 2423 | 25 | Spartina foliosa | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3218 | 468 | 2223 | 2424 | 25 | Spartina foliosa | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3219 | 468 | 2224 | 2425 | 25 | Spartina foliosa | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3214 | 469 | 2225 | 2426 | 25 | Spartina (alterniflora, densiflora) | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3215 | 469 | 2226 | 2427 | 25 | Spartina (alterniflora, densiflora) | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3203 | 472 | 2227 | 2428 | 25 | Sesuvium verrucosum | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3204 | 472 | 2228 | 2429 | 25 | Sesuvium verrucosum | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3205 | 472 | 2229 | 2430 | 25 | Sesuvium verrucosum | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3206 | 472 | 2230 | 2431 | 25 | Sesuvium verrucosum | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3207 | 472 | 2231 | 2432 | 25 | Sesuvium verrucosum | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2468 | 473 | 2232 | 2433 | 25 | Atriplex prostrata–Cotula coronopifolia | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2469 | 473 | 2233 | 2434 | 25 | Atriplex prostrata–Cotula coronopifolia | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2470 | 473 | 2234 | 2435 | 25 | Atriplex prostrata–Cotula coronopifolia | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2471 | 473 | 2235 | 2436 | 25 | Atriplex prostrata–Cotula coronopifolia | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2472 | 473 | 2236 | 2437 | 25 | Atriplex prostrata–Cotula coronopifolia | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2473 | 473 | 2237 | 2438 | 25 | Atriplex prostrata–Cotula coronopifolia | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 2700 | 473 | 2238 | 2439 | 25 | Atriplex prostrata–Cotula coronopifolia | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| | | | 2440 | | | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| | | | 2441 | | | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| | | | 2442 | | | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.6. | 2.C.6.c. | MG081. |
| 3253 | 408 | 1989 | 2181 | 22 | Typha (angustifolia, domingensis, latifolia) | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. | 2.C.5. | 2.C.5.b. | MG073. |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| *Corylus cornuta / Polystichum munitum* | | | *37.950.01 | | Association | *37.950.01 | Vancouverian coastal deciduous scrub | | Keeler- | Zimmerm |
| *Corylus cornuta var. californica* (Hazelnut scrub) Alliance | Hazelnut scrub | G3 S2? | *37.950.00 | | Alliance | *37.950.00 | Vancouverian coastal deciduous scrub | 37.950.00 | Keeler- | Anderson |
| Active Coastal Dunes | | G3 S2.2 | | *CTT21100CA | | | | | | |
| Northern Foredunes | | G2 S2.1 | | *CTT21210CA | | | | | | |
| Northern Foredune Grassland | | G1 S1.1 | | *CTT21211CA | | | | | | |
| Central Foredunes | | G1 S1.2 | | *CTT21220CA | | | | | | |
| Southern Foredunes | | G2 S2.1 | | *CTT21230CA | | | | | | |
| Northern Dune Scrub | | G2 S1.2 | | CTT21310CA | | | | | | |
| Central Dune Scrub | | G2 S2.2 | | *CTT21320CA | | | | | | |
| Southern Dune Scrub | | G1 S1.1 | | *CTT21330CA | | | | | | |
| Northern Coastal Bluff Scrub | | G2 S2.2 | | *CTT31100CA | | | | | | |
| Northern Salal Scrub | | G4 S3.2 | | *CTT32120CA | | | | | | |
| Southern Coastal Bluff Scrub | | G1 S1.1 | | *CTT31200CA | | | | | | |
| *Abronia latifolia - Ambrosia chamissonis* (Dune mat) Alliance | Dune mat | G3 S3 | *21.100.00 | | Alliance | *21.100.00 | Vancouverian/Pacific dune mat | 21.100.00 | Sawyer | |
| *Abronia latifolia - Erigeron glaucus* | | | *21.101.01 | | Association | *21.101.01 | Vancouverian/Pacific dune mat | | Casavecc | |
| *Abronia latifolia - Leymus mollis* | | | *21.101.02 | | Association | *21.101.02 | Vancouverian/Pacific dune mat | | Casavecc | |
| *Ambrosia chamissonis - Abronia maritima - Cakile maritima* | | | *21.102.02 | | Association | *21.102.02 | Vancouverian/Pacific dune mat | | Kaye | Junak et |
| *Ambrosia chamissonis - Abronia umbellata* | | | *21.102.01 | | Association | *21.102.01 | Vancouverian/Pacific dune mat | | Johnson | Junak et |
| *Ambrosia chamissonis - Eriophyllum staechadifolium (- Lupinus arboreus)* | | | *21.100.03 | | Association | *21.100.03 | Vancouverian/Pacific dune mat | | Holton | |
| *Ambrosia chamissonis - Malacothrix incana - Carpobrotus chilensis - Poa douglasii* | | | *21.102.03 | | Association | *21.102.03 | Vancouverian/Pacific dune mat | | Johnson | Junak et |
| *Artemisia pycnocephala - Calystegia soldanella* | | | *21.100.01 | | Association | *21.100.01 | Vancouverian/Pacific dune mat | | Bluestone | |
| *Artemisia pycnocephala - Cardionema ramosissimum* | | | *21.110.01 | | Association | *21.110.01 | Vancouverian/Pacific dune mat | | Keeler- | MacDonal |
| *Artemisia pycnocephala - Ericameria ericoides* | | | *21.110.03 | | Association | 21.110.03 | Vancouverian/Pacific dune mat | | McBride | |
| *Artemisia pycnocephala - Poa douglasii* | | | *21.110.04 | | Association | *21.110.04 | Vancouverian/Pacific dune mat | | Duebendo | |
| *Artemisia pycnocephala - Polygonum paronychia* | | | 21.110.02 | | Association | 21.110.02 | Vancouverian/Pacific dune mat | | Casavecc | |
| *Poa douglasii - Lathyrus littoralis* | | | *21.100.06 | | Association | *21.100.06 | Vancouverian/Pacific dune mat | | Parker | Johnson |
| *Cakile maritima - Abronia maritima* | | | 21.125.01 | | Provisional Semi-natur | 21.125.01 | Vancouverian/Pacific dune mat | | Williams | |
| *Cakile maritima - Ambrosia chamissonis - Carpobrotus edulis* | | | 21.102.04 | | Association | 21.102.04 | Vancouverian/Pacific dune mat | | Wiedema | Pickart |
| *Carex pansa* (Sand dune sedge swaths) Provisional Alliance | Sand dune sedge swaths | G4? S3? | *45.184.00 | | Provisional Alliance | *45.184.00 | Vancouverian/Pacific dune mat | 45.184.00 | McBride | Pickart |
| *Leymus mollis* (Sea lyme grass patches) Alliance | Sea lyme grass patches | G4 S2 | *41.260.00 | | Alliance | *41.260.00 | Vancouverian/Pacific dune mat | 41.260.00 | Pickart | Barbour |
| *Leymus mollis - Abronia latifolia - (Cakile sp.)* | | | *41.260.03 | | Association | *41.260.03 | Vancouverian/Pacific dune mat | | Johnson | LaBlanca |
| *Leymus mollis - Ammophila arenaria* | | | *41.260.02 | | Association | *41.260.02 | Vancouverian/Pacific dune mat | | LaBanca | |
| *Leymus mollis - Carpobrotus edulis* | | | *41.260.01 | | Association | *41.260.01 | Vancouverian/Pacific dune mat | | Bluestone | Kaye |

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| *Baccharis pilularis* (Coyote brush scrub) Alliance | Coyote brush scrub | G5 S5 | 32.060.00 | | Alliance | 32.060.00 | California Coastal evergreen bluff and dune scrub | | Borchert | Evens and |
| Northern Coyote Bush Scrub | | G4 S4 | | *CTT32110CA | | | | | | |
| Central Lucian Coastal Scrub | | G3 S3.3 | | *CTT32200CA | | | | | | |
| *Baccharis pilularis* | | | 32.060.23 | | Association | 32.060.23 | California Coastal evergreen bluff and dune scrub | | DaSilva | Borchert |
| *Baccharis pilularis - Lupinus arboreus* | | | 32.060.06 | | Association | 32.060.06 | California Coastal evergreen bluff and dune scrub | | Parker | cf. |
| *Baccharis pilularis - Artemisia californica* | | | 32.060.05 | | Association | 32.060.05 | California Coastal evergreen bluff and dune scrub | | Heady et | Keeler- |
| *Baccharis pilularis - Artemisia californica - Heteromeles arbutifolia* | | | 32.060.19 | | Provisional Association | 32.060.19 | California Coastal evergreen bluff and dune scrub | | Evens and | |
| *Baccharis pilularis - Artemisia californica - Toxicodendron / Monardella villosa* | | | 32.060.18 | | Association | 32.060.18 | California Coastal evergreen bluff and dune scrub | | Keeler- | Evens and |
| *Baccharis pilularis - Ceanothus thyrsiflorus* | | | 32.060.14 | | Association | 32.060.14 | California Coastal evergreen bluff and dune scrub | | Keeler- | Evens and |
| *Baccharis pilularis - Corylus cornuta* | | | 32.060.25 | | Association | 32.060.25 | California Coastal evergreen bluff and dune scrub | | Keeler- | |
| *Baccharis pilularis - Frangula californica - Rubus parviflorus* | | | 32.060.16 | | Association | 32.060.16 | California Coastal evergreen bluff and dune scrub | | Keeler- | |
| *Baccharis pilularis - Holodiscus discolor* | | | *32.060.12 | | Association | *32.060.12 | California Coastal evergreen bluff and dune scrub | | Keeler- | |
| *Baccharis pilularis - Lotus scoparius* | | | 32.060.29 | | Association | 32.060.29 | California Coastal evergreen bluff and dune scrub | | O'Neil and | |
| *Baccharis pilularis - Prunus ilicifolia* | | | 32.060.26 | | Association | 32.060.26 | California Coastal evergreen bluff and dune scrub | | Keeler- | |
| *Baccharis pilularis - Rubus ursinus / weedy herb* | | | 32.060.15 | | Association | 32.060.15 | California Coastal evergreen bluff and dune scrub | | Keeler- | |
| *Baccharis pilularis - Salvia mellifera* | | | 32.060.27 | | Association | 32.060.27 | California Coastal evergreen bluff and dune scrub | | DaSilva | Borchert |
| *Baccharis pilularis - Toxicodendron diversilobum* | | | 32.060.17 | | Association | 32.060.17 | California Coastal evergreen bluff and dune scrub | | Keeler- | cf. |
| *Baccharis pilularis / Ammophila arenaria* | | | 32.060.07 | | Association | 32.060.07 | California Coastal evergreen bluff and dune scrub | | Parker | Paysen et |
| *Baccharis pilularis / Annual Grass - Herb* | | | 32.060.20 | | Association | 32.060.20 | California Coastal evergreen bluff and dune scrub | | Keeler- | |
| *Baccharis pilularis / Carex obnupta - Juncus patens* | | | *32.060.13 | | Association | *32.060.13 | California Coastal evergreen bluff and dune scrub | | Keeler- | |
| *Baccharis pilularis / Danthonia californica* | | | *32.060.11 | | Association | *32.060.11 | California Coastal evergreen bluff and dune scrub | | Keeler- | |
| *Baccharis pilularis / Deschampsia caespitosa* | | | *32.060.02 | | Association | *32.060.02 | California Coastal evergreen bluff and dune scrub | | Elliot and | |
| *Baccharis pilularis / Dudleya farinosa* | | | 32.060.24 | | Association | 32.060.24 | California Coastal evergreen bluff and dune scrub | | Keeler- | |
| *Baccharis pilularis / Eriophyllum staechadifolium* | | | *32.060.01 | | Association | *32.060.01 | California Coastal evergreen bluff and dune scrub | | Baxter | cf. |
| *Baccharis pilularis / Leymus triticoides* | | | *32.060.03 | | Association | *32.060.03 | California Coastal evergreen bluff and dune scrub | | Fiedler | |
| *Baccharis pilularis / Nassella pulchra* | | | *32.060.10 | | Association | *32.060.10 | California Coastal evergreen bluff and dune scrub | | Keeler- | Evens and |
| *Baccharis pilularis / Native Grass (Mixed)* | | | 32.060.21 | | Association | 32.060.21 | California Coastal evergreen bluff and dune scrub | | Evens and | |
| *Baccharis pilularis / Polystichum munitum* | | | *32.060.04 | | Association | *32.060.04 | California Coastal evergreen bluff and dune scrub | | Grams et | Heady et |
| *Baccharis pilularis / Scrophularia californica* | | | 32.060.08 | | Association | 32.060.08 | California Coastal evergreen bluff and dune scrub | | Parker | LaBanca |
| *Gaultheria shallon - Baccharis pilularis - Ceanothus thyrsiflorus* | | | 32.060.28 | | Association | 32.060.28 | California Coastal evergreen bluff and dune scrub | | cf. | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| *Ceanothus thyrsiflorus* (Blue blossom chaparral) Alliance | Blue blossom chaparral | G4 S4 | 37.204.00 | | | Alliance | 37.204.00 | California Coastal evergreen bluff and dune scrub | | Keeler- | Evens et |
| Blue Brush Chaparral | | G4 S4 | | CTT37820CA | | | | | | | |
| *Ceanothus thyrsiflorus - Baccharis pilularis - Toxicodendron diversilobum* | | | 37.204.01 | | | Association | 37.204.01 | California Coastal evergreen bluff and dune scrub | | Keeler- | |
| *Ceanothus thyrsiflorus - Rubus ursinus* | | | 37.204.02 | | | Association | 37.204.02 | California Coastal evergreen bluff and dune scrub | | Evens and | |
| *Ceanothus thyrsiflorus - Vaccinium ovatum - Rubus parviflorus* | | | 37.204.03 | | | Association | 37.204.03 | California Coastal evergreen bluff and dune scrub | | Keeleer- | Everns |
| *Frangula californica* (California coffee berry scrub) Alliance | California coffee berry scrub | G4 S4 | 37.920.00 | | | Alliance | 37.920.00 | California Coastal evergreen bluff and dune scrub | | Keeler- | |
| *Frangula californica spp. tomentella / Hoita macrostachya* | | | 37.920.04 | | | Association | 37.920.04 | California Coastal evergreen bluff and dune scrub | | Klein et al. | |
| *Frangula californica ssp. tomentella* | | | 37.920.02 | | | Association | 37.920.02 | California Coastal evergreen bluff and dune scrub | | Evens and | Klein and |
| *Frangula californica ssp. tomentella / Cirsium fontinale var. campylon - Mimulus guttatus* | | | 37.920.03 | | | Association | 37.920.03 | California Coastal evergreen bluff and dune scrub | | Evens and | |
| *Frangula californica - Baccharis pilularis / Scrophularia californica* | | | *37.920.01 | | | Association | *37.920.01 | California Coastal evergreen bluff and dune scrub | | Keeler- | |
| *Garrya elliptica* (Coastal silk tassel scrub) Provisional Alliance | Coastal silk tassel scrub | G3? S3? | *39.040.00 | | | Provisional Alliance | *39.040.00 | California Coastal evergreen bluff and dune scrub | 39.040.00 | Keeler- | D. |
| Silk Tassel Forest | | G3 S3.2 | | *CTT81900CA | | | | | | | |
| Northern Silk Tassel Scrub | | G3 S2.3 | | *CTT32130CA | | | | | | | |
| *Lupinus arboreus* (Yellow bush lupine scrub) Alliance | Yellow bush lupine scrub | G4 S4 | 32.080.00 | | | Alliance | 32.080.00 | California Coastal evergreen bluff and dune scrub | | Barbour | Barbour |
| *Lupinus arboreus* | | | 32.080.02 | | | Association | 32.080.02 | California Coastal evergreen bluff and dune scrub | | Holton | Junak et |
| *Lupinus arboreus - Ericameria ericoides* | | | *32.080.03 | | | Association | *32.080.03 | California Coastal evergreen bluff and dune scrub | | Holton | Junak et |
| *Lupinus arboreus / Anthoxanthum odoratum* | | | 32.080.04 | | | Association | 32.080.04 | California Coastal evergreen bluff and dune scrub | | Hektner | |
| *Lupinus arboreus / Bromus diandrus* | | | 32.080.01 | | | Association | 32.080.01 | California Coastal evergreen bluff and dune scrub | | Duebendo | |
| *Lupinus arboreus / Scrophularia californica* | | | 32.080.05 | | | Association | 32.080.05 | California Coastal evergreen bluff and dune scrub | | Parker | Pickart |
| *Ericameria ericoides* | | | *32.160.01 | | | Association | *32.160.01 | California Coastal evergreen bluff and dune scrub | | Bluestone | Breckon |
| *Lupinus chamissonis - Ericameria ericoides* (Silver dune lupine - mock heather scrub) Alliar | Silver dune lupine - mock heather scrub | G3 S3 | *32.160.00 | | | Alliance | *32.160.00 | California Coastal evergreen bluff and dune scrub | 32.160.00 | Barbour | Barbour |
| *Lupinus chamissonis* | | | *32.160.02 | | | Association | *32.160.02 | California Coastal evergreen bluff and dune scrub | | Holton | Jones |
| *Lupinus chamissonis - Ericameria ericoides* | | | *32.160.03 | | | Association | *32.160.03 | California Coastal evergreen bluff and dune scrub | | Holton | Jones |
| *Venegasia carpesioides* (Canyon sunflower scrub) Alliance | Canyon sunflower scrub | G3 S3 | *39.030.00 | | | Alliance | *39.030.00 | California Coastal evergreen bluff and dune scrub | 39.030.00 | Keeler- | Qinfeng |
| *Venegasia carpesioides* | | | *39.030.01 | | | Association | *39.030.01 | California Coastal evergreen bluff and dune scrub | | Keeler- | Qinfeng |
| *Ammophila arenaria* (European beach grass swards) Semi-natural Stands | European beach grass swards | | 42.010.00 | | Invasive sp | Semi-natural Stands | 42.010.00 | California–Vancouverian semi-natural | littoral scrub and herb v | Barbour | Apteckar |
| *Ammophila arenaria* | | | 42.010.02 | | | Semi-natural Stands | 42.010.02 | California–Vancouverian semi-natural | littoral scrub and herb v | Duebendo | LaBanca |
| *Ammophila arenaria - Cardionema ramosissimum* | | | 42.010.03 | | | Semi-natural Stands | 42.010.03 | California–Vancouverian semi-natural | littoral scrub and herb v | Keeler- | |
| *Ammophila arenaria - Erechtites minima* | | | 42.010.01 | | | Semi-natural Stands | 42.010.01 | California–Vancouverian semi-natural | littoral scrub and herb v | Parker | LaBanca |
| *Ammophila arenaria - Lupinus variicolor* | | | 42.010.04 | | | Semi-natural Stands | 42.010.04 | California–Vancouverian semi-natural | littoral scrub and herb v | Casavecc | |
| *Cakile (edentula, maritima)* (Sea rocket sands) Provisional Semi-natural Stands | Sea rocket sands | | 21.125.00 | | Invasive sp | Provisional Semi-natur | 21.125.00 | California–Vancouverian semi-natural | littoral scrub and herb v | Barbour | Barbour |
| *Carpobrotus edulis or other Ice Plants* (Ice plant mats) Semi-natural Stands | Ice plant mats | | 21.200.00 | | Invasive sp | Semi-natural Stands | 21.200.00 | California–Vancouverian semi-natural | littoral scrub and herb v | D'Antonio | Albert |
| *Distichlis spicata* (Salt grass flats) Alliance | Salt grass flats | G5 S4 | 41.200.00 | | | Alliance | 41.200.00 | Temperate Pacific tidal salt and brackish meadow | | Keeler- | Keeler- |
| *Distichlis spicata - Agrostis viridis* | | | 41.200.14 | | | Association | 41.200.14 | Temperate Pacific tidal salt and brackish meadow | | Junak et | |
| *Distichlis spicata - Ambrosia chamissonis* | | | *41.200.11 | | | Association | *41.200.11 | Temperate Pacific tidal salt and brackish meadow | | Keeler- | |
| *Distichlis spicata - Atriplex triangularis* | | | 41.200.15 | | | Association | 41.200.15 | Temperate Pacific tidal salt and brackish meadow | | Keeler- | |
| *Distichlis spicata - Bromus diandrus* | | | 41.200.16 | | | Association | 41.200.16 | Temperate Pacific tidal salt and brackish meadow | | Junak et | |
| *Distichlis spicata - Cotula coronopifolia* | | | 41.200.17 | | | Association | 41.200.17 | Temperate Pacific tidal salt and brackish meadow | | Keeler- | |
| *Distichlis spicata - Frankenia salina - Jaumea carnosa* | | | *41.200.07 | | | Association | *41.200.07 | Temperate Pacific tidal salt and brackish meadow | | MacDonal | Levine et |
| *Distichlis spicata - Hordeum murninum* | | | 41.200.18 | | | Association | 41.200.18 | Temperate Pacific tidal salt and brackish meadow | | Junak et | |
| *Distichlis spicata - Jaumea carnosa* | | | *41.200.06 | | | Association | *41.200.06 | Temperate Pacific tidal salt and brackish meadow | | Peinado | |
| *Distichlis spicata - Juncus arcticus ssp. balticus (J. arcticus ssp. mexicanus)* | | | 41.200.05 | | | Association | 41.200.05 | Temperate Pacific tidal salt and brackish meadow | | Odion et | Paysen et |
| *Distichlis spicata - Juncus cooperi* | | | *41.200.02 | | | Association | *41.200.02 | Temperate Pacific tidal salt and brackish meadow | | Bradley | Cheatham |
| *Distichlis spicata - Leymus triticoides / Lupinus (albifrons, arboreus)* | | | 41.200.19 | | | Association | 41.200.19 | Temperate Pacific tidal salt and brackish meadow | | Junak et | |
| *Distichlis spicata - Parapholis strigosa* | | | 41.200.10 | | | Association | 41.200.10 | Temperate Pacific tidal salt and brackish meadow | | Pickart | |
| *Distichlis spicata - Sarcocornia pacifica* | | | *41.200.20 | | | Association | *41.200.20 | Temperate Pacific tidal salt and brackish meadow | | Atwater et | Barry |
| *Distichlis spicata / Allenrolfea occidentalis* | | | *41.200.01 | | | Association | *41.200.01 | Temperate Pacific tidal salt and brackish meadow | | Bradley | Cheatham |
| *Distichlis spicata / annual grasses* | | | 41.200.13 | | | Association | 41.200.13 | Temperate Pacific tidal salt and brackish meadow | | Keeler- | Hickson |
| *Distichlis spicata / Chrysothamnus albidus* | | | *41.200.04 | | | Association | *41.200.04 | Temperate Pacific tidal salt and brackish meadow | | Paysen et | Paysen et |
| *Distichlis spicata / Sarcobatus vermiculatus* | | | *41.200.03 | | | Association | *41.200.03 | Temperate Pacific tidal salt and brackish meadow | | Ferren | |
| *Bulboschoenus maritimus* (Salt marsh bulrush marshes) Alliance | Salt marsh bulrush marshes | G4 S3 | *52.112.00 | | | Alliance | *52.112.00 | Temperate Pacific tidal salt and brackish meadow | 52.112.00 | Keeler- | |
| *Bolboschoenus maritimus* | | | *52.112.03 | | | Association | *52.112.03 | Temperate Pacific tidal salt and brackish meadow | | Pickart | |
| *Bolboschoenus maritimus / Sarcocornia pacifica (depressa)* | | | *52.112.04 | | | Association | *52.112.04 | Temperate Pacific tidal salt and brackish meadow | | Keeler- | |
| *Bolboschoenus maritimus / Sesuvium verrucosum* | | | *52.112.05 | | | Association | *52.112.05 | Temperate Pacific tidal salt and brackish meadow | | Keeler- | |
| *Sarcocornia pacifica (Salicornia depressa)* (Pickleweed mats) Alliance | Pickleweed mats | G4 S3 | *52.215.00 | | | Alliance | *52.215.00 | Temperate Pacific tidal salt and brackish meadow | 52.215.00 | Atwater et | Evens and |
| *Sarcocornia pacific - Lepidium latifolium* | | | *52.215.12 | | | Association | *52.215.12 | Temperate Pacific tidal salt and brackish meadow | | Duke et | |
| *Sarcocornia pacifica* | | | *52.215.04 | | | Association | *52.215.04 | Temperate Pacific tidal salt and brackish meadow | | Atwater et | Barnhart |
| *Sarcocornia pacifica - Jaumea carnosa - Batis maritima* | | | *52.215.22 | | | Association | *52.215.22 | Temperate Pacific tidal salt and brackish meadow | | Henderso | Grewell et |
| *Sarcocornia pacifica - Atriplex prostrata* | | | *52.215.06 | | | Association | *52.215.06 | Temperate Pacific tidal salt and brackish meadow | | Duke et | Keeler- |
| *Sarcocornia pacifica - Bolboschoenus maritimus* | | | *52.215.07 | | | Association | *52.215.07 | Temperate Pacific tidal salt and brackish meadow | | Duke et | |
| *Sarcocornia pacifica - Brassica nigra* | | | *52.215.15 | | | Association | *52.215.15 | Temperate Pacific tidal salt and brackish meadow | | Keeler- | |
| *Sarcocornia pacifica - Cotula coronopifolia* | | | *52.215.16 | | | Association | *52.215.16 | Temperate Pacific tidal salt and brackish meadow | | MacDonal | Hickson |
| *Sarcocornia pacifica - Crypsis schoenoides* | | | *52.215.17 | | | Association | *52.215.17 | Temperate Pacific tidal salt and brackish meadow | | MacDonal | Keeler- |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Sarcocornia pacifica - Cuscuta salina - Spartina densiflora* | | | | *52.215.01 | | Association | *52.215.01 | Temperate Pacific tidal salt and brackish meadow | | Hendricks | Grewell et |
| *Sarcocornia pacifica - Distichlis spicata* | | | | *52.215.02 | | Association | *52.215.02 | Temperate Pacific tidal salt and brackish meadow | | Eicher | Newton |
| *Sarcocornia pacifica - Echinochloa crus-galli - Polygonum - Xanthium strumarium* | | | | *52.215.18 | | Association | *52.215.18 | Temperate Pacific tidal salt and brackish meadow | | MacDonal | Keeler- |
| *Sarcocornia pacifica - Frankenia salina* | | | | *52.215.09 | | Association | *52.215.09 | Temperate Pacific tidal salt and brackish meadow | | Duke et | |
| *Sarcocornia pacifica - Frankenia salina - Suaeda taxifolia* | | | | *52.215.21 | | Association | *52.215.21 | Temperate Pacific tidal salt and brackish meadow | | Keeler- | |
| *Sarcocornia pacifica - Grindelia stricta* | | | | *52.215.10 | | Association | *52.215.10 | Temperate Pacific tidal salt and brackish meadow | | Chapman | Atwater et |
| *Sarcocornia pacifica - Jaumea carnosa* | | | | *52.215.11 | | Association | *52.215.11 | Temperate Pacific tidal salt and brackish meadow | | Hendricks | Atwater et |
| *Sarcocornia pacifica - Jaumea carnosa - Distichlis spicata* | | | | *52.215.03 | | Association | *52.215.03 | Temperate Pacific tidal salt and brackish meadow | | Paysen et | Eicher |
| *Sarcocornia pacifica - Sesuvium verrucosum* | | | | *52.215.20 | | Association | *52.215.20 | Temperate Pacific tidal salt and brackish meadow | | MacDonal | Keeler- |
| *Sarcocornia pacifica - Spartina foliosa* | | | | *52.215.13 | | Association | *52.215.13 | Temperate Pacific tidal salt and brackish meadow | | Duke et | |
| *Sarcocornia pacifica / algae* | | | | *52.215.14 | | Association | *52.215.14 | Temperate Pacific tidal salt and brackish meadow | | Keeler- | |
| *Sarcocornia pacifica/annual grasses (Polypogon, Hordeum, Lolium)* | | | | *52.215.19 | | Association | *52.215.19 | Temperate Pacific tidal salt and brackish meadow | | MacDonal | Keeler- |
| *Spartina foliosa* (California cordgrass marsh) Alliance | California cordgrass marsh | G3 S3 | *52.020.00 | | | Alliance | *52.020.00 | Temperate Pacific tidal salt and brackish meadow | 52.020.00 | Keeler- | |
| *Spartina foliosa* | | | *52.020.02 | | | Association | *52.020.02 | Temperate Pacific tidal salt and brackish meadow | | Atwater et | Barry |
| *Spartina foliosa - Sarcocornia pacifica* | | | *52.020.01 | | | Association | *52.020.01 | Temperate Pacific tidal salt and brackish meadow | | Hendricks | Grewell et |
| *Spartina (alterniflora, densiflora)* (Smooth or Chilean cordgrass marshes) Semi-natural Star | Smooth or Chilean cordgrass marshes | | *41.070.00 | | | Semi-natural Stands | *41.070.00 | Temperate Pacific tidal salt and brackish meadow | 41.070.00 | Pickart | DiTomaso |
| *Spartina densiflora* | | | 41.070.02 | | | Stand Type | 41.070.02 | Temperate Pacific tidal salt and brackish meadow | | Eicher | Eicher |
| *Sesuvium verrucosum* (Western sea-purslane marshes) Alliance | Western sea-purslane marshes | G3? S2 | *52.210.00 | | | Alliance | *52.210.00 | Western North American | disturbed alkaline marsh | 52.210.00 Keeler- | Baye et al. |
| *Sesuvium verrucosum* | | | *52.210.01 | | | Association | *52.210.01 | Western North American | disturbed alkaline marsh and meado | Keeler- | |
| *Sesuvium verrucosum - Cotula coronopifolia* | | | *52.210.02 | | | Association | *52.210.02 | Western North American | disturbed alkaline marsh and meado | Keeler- | |
| *Sesuvium verrucosum - Distichlis spicata* | | | *52.210.03 | | | Association | *52.210.03 | Western North American | disturbed alkaline marsh and meado | Keeler- | |
| *Sesuvium verrucosum - Lolium perenne* | | | *52.210.04 | | | Association | *52.210.04 | Western North American | disturbed alkaline marsh and meado | Keeler- | |
| *Atriplex prostrata - Cotula coronopifolia* (Fields of fat hen and brass buttons) Semi-natural S | Fields of fat hen and brass buttons | | 52.211.00 | | Invasive sp | Semi-natural Stands | 52.211.00 | Western North American | disturbed alkaline marsh and meado | Keeler- | Pickart |
| *Atriplex prostrata* | | | 52.211.01 | | | Semi-natural Stands | 52.211.01 | Western North American | disturbed alkaline marsh and meado | Keeler- | Khan and |
| *Atriplex prostrata / annual grasses* | | | 52.211.02 | | | Semi-natural Stands | 52.211.02 | Western North American | disturbed alkaline marsh and meado | Keeler- | Khan and |
| *Atriplex prostrata / Distichlis spicata* | | | 52.211.03 | | | Semi-natural Stands | 52.211.03 | Western North American | disturbed alkaline marsh and meado | Keeler- | Khan and |
| *Atriplex prostrata / Schoenoplectus maritimus* | | | 52.211.04 | | | Semi-natural Stands | 52.211.04 | Western North American | disturbed alkaline marsh and meado | Keeler- | Khan and |
| *Atriplex prostrata / Sesuvium verrucosum* | | | 52.211.05 | | | Semi-natural Stands | 52.211.05 | Western North American | disturbed alkaline marsh and meado | Keeler- | Khan and |
| *Cotula coronopifolia* | | | 52.211.06 | | | Semi-natural Stands | 52.211.06 | Western North American | disturbed alkaline marsh and meado | Keeler- | Khan and |
| Coastal Brackish Marsh | | G2 S2.1 | | *CTT52200CA | | | | | | | |
| Northern Coastal Salt Marsh | | G3 S3.2 | | *CTT52110CA | | | | | | | |
| Southern Coastal Salt Marsh | | G2 S2.1 | | *CTT52120CA | | | | | | | |
| *Typha (angustifolia, domingensis, latifolia)* (Cattail marshes) Alliance | Cattail marshes | G5 S5 | 52.050.00 | | | Alliance | 52.050.00 | Arid West freshwater emergent marsh | | Keeler- | Evens and |

http://www.dfg.ca.gov/biogeodata/vegcamp/natural_communities.asp

| RecordOrder | Level 1 - Formation Class | Level 2 - Formation Subclass | Level 3 -Formation | Level 4 - Division | Macrogroup |
|---|---|---|---|---|---|
| 1 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 2 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 3 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 4 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 5 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 6 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 7 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 8 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 9 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 10 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 11 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 12 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 13 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 14 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 15 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 16 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 17 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 18 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 19 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 20 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 21 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 22 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 23 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 24 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 25 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 26 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 27 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 28 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 29 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 30 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 31 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 32 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 33 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 34 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 35 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 36 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 37 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 38 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 39 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 40 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 41 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 42 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 43 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 44 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 45 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 46 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 47 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 48 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 49 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 50 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 51 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 52 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 53 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 54 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 55 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 56 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 57 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 58 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 59 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 60 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 61 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 62 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 63 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 64 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 65 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 66 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 67 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 68 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |

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| 69 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 70 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 71 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 72 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 73 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 74 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 75 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 76 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 77 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 78 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 79 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 80 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 81 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 82 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 83 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 84 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 85 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 86 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 87 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 88 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 89 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 90 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 91 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 92 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 93 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 94 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 95 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 96 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 97 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 98 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 99 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 100 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 101 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 102 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 103 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 104 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 105 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 106 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 107 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 108 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 109 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 110 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 111 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 112 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 113 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 114 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 115 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 116 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 117 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 118 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 119 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 120 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 121 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 122 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 123 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 124 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 125 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 126 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 127 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 128 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 129 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 130 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 131 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 132 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 133 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 134 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 135 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 136 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 137 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 138 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |

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| 139 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 140 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 141 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 142 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 143 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 144 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 145 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 146 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 147 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 148 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 149 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 150 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 151 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 152 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 153 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 154 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 155 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 156 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 157 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 158 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 159 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 160 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 161 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 162 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 163 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 164 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 165 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 166 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 167 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 168 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 169 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 170 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 171 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 172 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 173 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 174 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 175 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 176 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 177 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 178 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 179 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 180 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 181 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 182 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 183 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 184 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 185 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 186 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 187 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 188 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 189 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 190 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 191 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 192 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 193 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
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| 195 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 196 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 197 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
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| 199 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 200 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 201 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 202 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 203 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 204 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
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| 207 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 208 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |

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| 209 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 210 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 211 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 212 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 213 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
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| 279 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
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| 297 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 298 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 299 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 300 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 301 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 302 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 303 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 304 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 305 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 306 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 307 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 308 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 309 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 310 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 311 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 312 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 313 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 314 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 315 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 316 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 317 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 318 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 319 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 320 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 321 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 322 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 323 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 324 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 325 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 326 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 327 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 328 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 329 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 330 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 331 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 332 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 333 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 334 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 335 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 336 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 337 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 338 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 339 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 340 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 341 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 342 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 343 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 344 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 345 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 346 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 347 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 348 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |

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| 349 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 350 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 351 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 352 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 353 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 354 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 355 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.1. Warm Temperate Forest | 1.C.1.c. Madrean Forest and Woodland | MG009. California Forest and Woodland |
| 356 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 357 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 358 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 359 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 360 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 361 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 362 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 363 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 364 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 365 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 366 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 367 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 368 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 369 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 370 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 371 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 372 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 373 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 374 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 375 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 376 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 377 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 378 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 379 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 380 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 381 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 382 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 383 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 384 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 385 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 386 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 387 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 388 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 389 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 390 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 391 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 392 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 393 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 394 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 395 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 396 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 397 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 398 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 399 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 400 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 401 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 402 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 403 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 404 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 405 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 406 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 407 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 408 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 409 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 410 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 411 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 412 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 413 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 414 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 415 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 416 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 417 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 418 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |

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| 419 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 420 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 421 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 422 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 423 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 424 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 425 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 426 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 427 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 428 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 429 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 430 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 431 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 432 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 433 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 434 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 435 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 436 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 437 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 438 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 439 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 440 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 441 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 442 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 443 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 444 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 445 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 446 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 447 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 448 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 449 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 450 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 451 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 452 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 453 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 454 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 455 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 456 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 457 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 458 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 459 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 460 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 461 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 462 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 463 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 464 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 465 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 466 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 467 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 468 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 469 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 470 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 471 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 472 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 473 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 474 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 475 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 476 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 477 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 478 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 479 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 480 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 481 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 482 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 483 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 484 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 485 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 486 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 487 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 488 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |

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| 489 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 490 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 491 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 492 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 493 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 494 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 495 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 496 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 497 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 498 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 499 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 500 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 501 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 502 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 503 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 504 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 505 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 506 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 507 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 508 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 509 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 510 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 511 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 512 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 513 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 514 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 515 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 516 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 517 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 518 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 519 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 520 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 521 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 522 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 523 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 524 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 525 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 526 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 527 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 528 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 529 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 530 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 531 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 532 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 533 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 534 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 535 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 536 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 537 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 538 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 539 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 540 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 541 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 542 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 543 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 544 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 545 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 546 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 547 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 548 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 549 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 550 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 551 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 552 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 553 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 554 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 555 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 556 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 557 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 558 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |

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|---|---|---|---|---|---|
| 559 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 560 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 561 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 562 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 563 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 564 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 565 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 566 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 567 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 568 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 569 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 570 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 571 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 572 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 573 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 574 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 575 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 576 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 577 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 578 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 579 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 580 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 581 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 582 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 583 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 584 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 585 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 586 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 587 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 588 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 589 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 590 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 591 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 592 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 593 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 594 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 595 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 596 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 597 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 598 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 599 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 600 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 601 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 602 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 603 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 604 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 605 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 606 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 607 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 608 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 609 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 610 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 611 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 612 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 613 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 614 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 615 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 616 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 617 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 618 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 619 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 620 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 621 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 622 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 623 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 624 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 625 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 626 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 627 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 628 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |

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| 629 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 630 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 631 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 632 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 633 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 634 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 635 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 636 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 637 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 638 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 639 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 640 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 641 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 642 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 643 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 644 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 645 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 646 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 647 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 648 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 649 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 650 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 651 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 652 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 653 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 654 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 655 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 656 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 657 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 658 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 659 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 660 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 661 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 662 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 663 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 664 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 665 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 666 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 667 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 668 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 669 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 670 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 671 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 672 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 673 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 674 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 675 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 676 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 677 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 678 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 679 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 680 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 681 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 682 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 683 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 684 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 685 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 686 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 687 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 688 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 689 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 690 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 691 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 692 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 693 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 694 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 695 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 696 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 697 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 698 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |

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| 699 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 700 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 701 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 702 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 703 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 704 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 705 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 706 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 707 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 708 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 709 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 710 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 711 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 712 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 713 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 714 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 715 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 716 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 717 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 718 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 719 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 720 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 721 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 722 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 723 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 724 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 725 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 726 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 727 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 728 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 729 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 730 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 731 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 732 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 733 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 734 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG023. Californian–Vancouverian Montane |
| 735 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 736 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 737 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 738 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 739 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 740 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 741 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 742 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 743 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 744 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 745 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 746 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 747 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 748 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 749 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 750 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 751 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 752 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 753 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 754 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 755 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 756 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 757 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 758 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 759 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 760 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 761 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 762 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 763 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 764 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 765 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 766 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 767 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 768 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |

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| 769 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 770 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 771 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 772 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 773 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 774 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 775 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 776 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 777 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 778 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 779 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 780 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 781 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 782 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 783 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 784 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 785 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 786 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 787 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG020. Rocky Mountain Subalpine and High |
| 788 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 789 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 790 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 791 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 792 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 793 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 794 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 795 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 796 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 797 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 798 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 799 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 800 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 801 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 802 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 803 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 804 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 805 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 806 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 807 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 808 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 809 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 810 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 811 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 812 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 813 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 814 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 815 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 816 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 817 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 818 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 819 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 820 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 821 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 822 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 823 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 824 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 825 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 826 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 827 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 828 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 829 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 830 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 831 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 832 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 833 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 834 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 835 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 836 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 837 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 838 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |

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| 839 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 840 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 841 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 842 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 843 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 844 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 845 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 846 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 847 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 848 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 849 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 850 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 851 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 852 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 853 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 854 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 855 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 856 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 857 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 858 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 859 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 860 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 861 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 862 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 863 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 864 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 865 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 866 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 867 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 868 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 869 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 870 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG024. Vancouverian Rainforest |
| 871 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 872 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 873 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 874 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 875 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 876 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 877 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 878 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 879 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 880 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 881 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 882 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 883 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 884 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 885 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 886 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 887 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 888 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 889 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 890 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 891 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 892 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 893 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 894 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 895 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 896 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 897 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 898 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 899 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 900 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 901 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 902 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 903 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 904 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 905 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 906 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 907 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 908 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |

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|---|---|---|---|---|---|
| 909 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 910 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 911 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 912 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 913 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 914 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 915 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 916 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 917 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 918 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 919 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 920 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 921 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 922 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 923 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 924 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 925 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 926 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 927 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 928 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 929 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 930 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 931 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 932 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 933 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 934 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 935 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 936 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 937 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 938 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 939 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 940 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 941 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 942 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.b. Western North America Cool | MG025. Vancouverian Subalpine Forest |
| 943 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 944 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 945 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 946 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 947 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 948 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 949 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 950 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 951 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 952 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 953 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 954 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 955 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 956 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 957 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 958 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 959 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 960 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 961 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 962 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 963 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 964 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 965 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 966 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 967 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 968 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 969 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 970 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 971 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 972 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 973 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 974 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 975 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 976 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 977 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 978 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |

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|---|---|---|---|---|---|
| 979 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 980 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 981 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 982 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 983 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 984 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 985 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 986 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 987 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 988 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 989 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 990 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 991 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.c. North American Intermountain Basins | MG026. Intermountain Basins Pinyon–Juniper |
| 992 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.x. North American Introduced Evergreen | MG027. Introduced North American |
| 993 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.x. North American Introduced Evergreen | MG027. Introduced North American |
| 994 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.x. North American Introduced Evergreen | MG027. Introduced North American |
| 995 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.x. North American Introduced Evergreen | MG027. Introduced North American |
| 996 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.2. Cool Temperate Forest | 1.C.2.x. North American Introduced Evergreen | MG027. Introduced North American |
| 997 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG031. Western cool temperate scrub |
| 998 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG031. Western cool temperate scrub |
| 999 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG031. Western cool temperate scrub |
| 1000 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG031. Western cool temperate scrub |
| 1001 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG031. Western cool temperate scrub |
| 1002 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG031. Western cool temperate scrub |
| 1003 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1004 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1005 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1006 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1007 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1008 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1009 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1010 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1011 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1012 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1013 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1014 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1015 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1016 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1017 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1018 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1019 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1020 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1021 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1022 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1023 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1024 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1025 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1026 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1027 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1028 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1029 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1030 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1031 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1032 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1033 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1034 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1035 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1036 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1037 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1038 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1039 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1040 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1041 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1042 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1043 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1044 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1045 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1046 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1047 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1048 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |

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| 1049 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1050 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1051 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1052 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1053 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1054 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1055 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1056 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1057 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1058 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1059 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1060 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1061 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1062 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1063 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1064 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1065 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1066 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1067 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1068 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1069 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1070 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1071 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1072 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1073 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1074 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1075 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1076 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1077 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1078 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1079 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1080 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1081 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1082 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1083 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1084 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1085 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1086 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1087 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1088 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1089 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1090 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1091 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1092 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1093 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1094 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1095 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1096 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1097 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1098 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1099 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1100 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1101 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1102 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1103 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1104 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1105 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1106 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1107 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1108 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1109 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1110 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1111 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1112 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1113 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1114 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.b. Western North America Flooded and | MG034. Western Cordilleran montane–boreal |
| 1115 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1116 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1117 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1118 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |

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| 1119 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1120 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1121 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1122 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1123 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1124 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1125 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1126 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1127 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1128 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1129 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1130 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1131 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1132 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1133 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1134 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1135 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1136 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1137 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1138 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1139 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1140 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1141 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1142 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1143 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1144 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1145 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1146 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1147 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1148 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1149 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1150 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1151 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1152 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1153 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1154 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1155 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1156 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1157 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1158 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1159 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1160 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1161 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1162 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1163 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1164 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1165 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1166 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1167 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1168 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1169 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1170 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1171 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1172 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1173 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1174 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1175 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1176 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1177 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1178 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1179 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1180 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1181 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1182 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1183 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1184 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1185 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1186 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1187 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1188 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |

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| 1189 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1190 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1191 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1192 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1193 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1194 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1195 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1196 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1197 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1198 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1199 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1200 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1201 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1202 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1203 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1204 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1205 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1206 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1207 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1208 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1209 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1210 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1211 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1212 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1213 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1214 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1215 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1216 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1217 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1218 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1219 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1220 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1221 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1222 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1223 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1224 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1225 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1226 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1227 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1228 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1229 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1230 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1231 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1232 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1233 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1234 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1235 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1236 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1237 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1238 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1239 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1240 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1241 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1242 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1243 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1244 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1245 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1246 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1247 | 1. Mesomorphic Tree Vegetation (Forest and Woodland) | 1.C. Temperate Forest | 1.C.3. Temperate Flooded and Swamp | 1.C.3.c. Western North America Warm | MG036. Southwestern North American |
| 1248 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1249 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1250 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1251 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1252 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1253 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1254 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1255 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1256 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1257 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1258 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |

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| 1259 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1260 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1261 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1262 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1263 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1264 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1265 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1266 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1267 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1268 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1269 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1270 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1271 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1272 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1273 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1274 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1275 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1276 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1277 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1278 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1279 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1280 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1281 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1282 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1283 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1284 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1285 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1286 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1287 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1288 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1289 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1290 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1291 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1292 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1293 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1294 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1295 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1296 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1297 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1298 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1299 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1300 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1301 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1302 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1303 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1304 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1305 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1306 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1307 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1308 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1309 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1310 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1311 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1312 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1313 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1314 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1315 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1316 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1317 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1318 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1319 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1320 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1321 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1322 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1323 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1324 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1325 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1326 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1327 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1328 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |

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| 1329 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1330 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1331 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1332 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1333 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1334 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1335 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1336 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1337 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1338 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1339 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1340 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1341 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1342 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1343 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1344 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1345 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1346 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1347 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1348 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1349 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1350 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1351 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1352 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1353 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1354 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1355 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1356 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1357 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1358 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1359 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1360 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1361 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1362 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1363 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1364 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1365 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1366 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1367 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1368 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1369 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1370 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1371 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1372 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1373 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1374 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1375 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1376 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1377 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1378 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1379 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1380 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1381 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1382 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1383 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1384 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1385 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1386 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1387 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1388 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1389 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1390 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1391 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1392 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1393 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1394 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1395 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1396 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1397 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1398 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |

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| 1399 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1400 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1401 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1402 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
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| 1404 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
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| 1406 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
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| 1468 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |

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| 1469 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
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| 1526 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1527 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1528 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1529 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1530 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1531 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1532 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1533 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1534 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1535 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1536 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG043. California Chaparral |
| 1537 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1538 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |

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| 1539 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1540 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1541 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1542 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1543 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1544 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1545 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1546 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1547 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1548 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1549 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1550 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1551 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1552 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1553 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1554 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1555 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1556 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1557 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1558 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1559 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1560 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1561 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1562 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1563 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1564 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1565 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1566 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1567 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1568 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1569 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1570 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1571 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1572 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1573 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1574 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1575 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1576 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1577 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1578 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1579 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1580 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1581 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1582 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1583 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1584 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1585 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1586 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1587 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1588 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1589 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1590 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1591 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1592 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1593 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1594 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1595 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1596 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1597 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1598 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1599 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1600 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1601 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1602 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1603 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1604 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1605 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1606 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1607 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1608 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |

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| 1609 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1610 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1611 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1612 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1613 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1614 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1615 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1616 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1617 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1618 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1619 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1620 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1621 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1622 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1623 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1624 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1625 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1626 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1627 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1628 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1629 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1630 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1631 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1632 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1633 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1634 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1635 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1636 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1637 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1638 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1639 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1640 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1641 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1642 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1643 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1644 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1645 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1646 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1647 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1648 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1649 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1650 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1651 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1652 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1653 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1654 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1655 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1656 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1657 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1658 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1659 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1660 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1661 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.1. Mediterranean Scrub | 2.B.1.a. California Scrub | MG044. California Coastal Scrub |
| 1662 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1663 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1664 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1665 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1666 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1667 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1668 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1669 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1670 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1671 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1672 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1673 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1674 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1675 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1676 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1677 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1678 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |

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| 1679 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1680 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1681 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1682 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1683 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1684 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1685 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1686 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1687 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1688 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1689 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1690 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1691 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1692 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1693 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1694 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1695 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1696 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1697 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1698 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1699 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1700 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1701 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1702 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1703 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1704 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1705 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1706 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1707 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1708 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1709 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1710 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1711 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1712 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1713 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1714 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1715 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1716 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1717 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1718 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1719 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1720 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1721 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1722 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1723 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1724 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1725 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1726 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1727 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1728 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1729 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1730 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1731 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1732 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1733 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1734 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1735 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1736 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1737 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1738 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1739 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1740 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1741 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1742 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1743 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1744 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1745 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1746 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1747 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1748 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |

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| 1749 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1750 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1751 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1752 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1753 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1754 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1755 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1756 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1757 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1758 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1759 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1760 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1761 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1762 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1763 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1764 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1765 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1766 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1767 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1768 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1769 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1770 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1771 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1772 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1773 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1774 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1775 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1776 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1777 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1778 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1779 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1780 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.B. Mediterranean Scrub and Grassland | 2.B.2. Mediterranean Grassland and | 2.B.2.a. California Grassland and Meadow | MG045. California Annual and Perennial |
| 1781 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1782 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1783 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1784 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1785 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1786 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1787 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1788 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1789 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1790 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1791 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1792 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1793 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1794 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1795 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1796 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1797 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1798 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1799 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1800 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1801 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1802 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1803 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1804 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1805 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1806 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1807 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1808 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1809 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1810 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1811 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1812 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1813 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1814 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1815 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1816 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1817 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1818 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |

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| 1819 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1820 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1821 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1822 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1823 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1824 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1825 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1826 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1827 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1828 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1829 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1830 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1831 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1832 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1833 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1834 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1835 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1836 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1837 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1838 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG047. Western Cordilleran montane-boreal |
| 1839 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1840 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1841 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1842 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1843 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1844 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1845 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1846 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1847 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1848 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1849 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1850 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1851 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1852 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1853 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1854 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1855 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1856 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1857 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1858 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1859 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1860 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1861 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1862 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1863 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1864 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1865 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1866 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1867 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1868 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1869 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1870 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1871 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1872 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1873 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1874 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1875 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1876 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1877 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG048. Western North American Temperate |
| 1878 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1879 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1880 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1881 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1882 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1883 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1884 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1885 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1886 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1887 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1888 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |

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| 1889 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1890 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1891 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1892 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1893 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1894 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1895 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1896 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1897 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1898 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1899 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1900 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1901 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1902 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1903 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1904 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1905 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1906 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1907 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1908 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1909 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1910 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1911 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1912 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1913 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1914 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1915 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1916 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1917 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1918 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1919 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1920 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1921 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1922 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1923 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1924 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1925 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1926 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1927 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1928 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1929 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1930 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1931 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1932 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1933 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1934 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1935 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1936 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1937 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1938 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1939 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1940 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1941 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1942 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1943 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1944 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1945 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG049. Western Cordilleran Montane |
| 1946 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1947 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1948 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1949 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1950 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1951 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1952 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1953 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1954 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1955 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1956 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1957 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1958 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |

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| 1959 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1960 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1961 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1962 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1963 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1964 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1965 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1966 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1967 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1968 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1969 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1970 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1971 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1972 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1973 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1974 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1975 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1976 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1977 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1978 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1979 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.a. Vancouverian and Rocky Mountain | MG050. Vancouverian Lowland Grassland |
| 1980 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 1981 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 1982 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 1983 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 1984 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 1985 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 1986 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 1987 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 1988 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 1989 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 1990 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 1991 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 1992 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 1993 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 1994 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 1995 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 1996 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 1997 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 1998 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 1999 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 2000 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 2001 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 2002 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 2003 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 2004 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 2005 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 2006 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 2007 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 2008 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 2009 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 2010 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 2011 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 2012 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 2013 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 2014 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 2015 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 2016 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 2017 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 2018 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 2019 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG051. Warm Interior Chaparral |
| 2020 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG052. Western North American |
| 2021 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG052. Western North American |
| 2022 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG052. Western North American |
| 2023 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG052. Western North American |
| 2024 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG052. Western North American |
| 2025 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG052. Western North American |
| 2026 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG052. Western North American |
| 2027 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG052. Western North American |
| 2028 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG052. Western North American |

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|---|---|---|---|---|---|
| 2029 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG052. Western North American |
| 2030 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG052. Western North American |
| 2031 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG052. Western North American |
| 2032 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG052. Western North American |
| 2033 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG052. Western North American |
| 2034 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG052. Western North American |
| 2035 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG052. Western North American |
| 2036 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG052. Western North American |
| 2037 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG052. Western North American |
| 2038 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG052. Western North American |
| 2039 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG052. Western North American |
| 2040 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG052. Western North American |
| 2041 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG052. Western North American |
| 2042 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG052. Western North American |
| 2043 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.1. Temperate Grassland, Meadow, | 2.C.1.x. Western North America Interior | MG052. Western North American |
| 2044 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2045 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2046 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2047 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2048 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2049 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2050 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2051 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2052 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2053 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2054 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2055 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2056 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2057 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2058 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2059 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2060 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2061 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2062 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2063 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2064 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2065 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2066 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2067 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2068 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2069 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2070 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2071 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2072 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2073 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2074 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2075 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2076 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2077 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2078 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2079 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2080 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2081 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2082 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2083 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2084 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2085 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2086 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2087 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2088 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2089 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2090 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2091 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2092 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2093 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2094 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2095 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2096 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2097 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2098 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |

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| 2099 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2100 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2101 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2102 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2103 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2104 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2105 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2106 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2107 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2108 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2109 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2110 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2111 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2112 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2113 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2114 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2115 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2116 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2117 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2118 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2119 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2120 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2121 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2122 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2123 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2124 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2125 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2126 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2127 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2128 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2129 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2130 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2131 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2132 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2133 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2134 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2135 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2136 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.3. Temperate and Boreal Scrub and | 2.C.3.b. Pacific Coast Scrub and Herb Littoral | MG058. Vancouverian Coastal Dune and Bluff |
| 2137 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.4. Temperate and Boreal Bog and | 2.C.4.a. North American Scrub and Herb | MG063. Western North American |
| 2138 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.4. Temperate and Boreal Bog and | 2.C.4.a. North American Scrub and Herb | MG063. Western North American |
| 2139 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.4. Temperate and Boreal Bog and | 2.C.4.a. North American Scrub and Herb | MG063. Western North American |
| 2140 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.4. Temperate and Boreal Bog and | 2.C.4.a. North American Scrub and Herb | MG063. Western North American |
| 2141 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.4. Temperate and Boreal Bog and | 2.C.4.a. North American Scrub and Herb | MG063. Western North American |
| 2142 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.4. Temperate and Boreal Bog and | 2.C.4.a. North American Scrub and Herb | MG063. Western North American |
| 2143 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.4. Temperate and Boreal Bog and | 2.C.4.a. North American Scrub and Herb | MG063. Western North American |
| 2144 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.4. Temperate and Boreal Bog and | 2.C.4.a. North American Scrub and Herb | MG063. Western North American |
| 2145 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.4. Temperate and Boreal Bog and | 2.C.4.a. North American Scrub and Herb | MG063. Western North American |
| 2146 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.4. Temperate and Boreal Bog and | 2.C.4.a. North American Scrub and Herb | MG063. Western North American |
| 2147 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.4. Temperate and Boreal Bog and | 2.C.4.a. North American Scrub and Herb | MG063. Western North American |
| 2148 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.4. Temperate and Boreal Bog and | 2.C.4.a. North American Scrub and Herb | MG063. Western North American |
| 2149 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.4. Temperate and Boreal Bog and | 2.C.4.a. North American Scrub and Herb | MG063. Western North American |
| 2150 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.4. Temperate and Boreal Bog and | 2.C.4.a. North American Scrub and Herb | MG063. Western North American |
| 2151 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.4. Temperate and Boreal Bog and | 2.C.4.a. North American Scrub and Herb | MG063. Western North American |
| 2152 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.4. Temperate and Boreal Bog and | 2.C.4.a. North American Scrub and Herb | MG063. Western North American |
| 2153 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.4. Temperate and Boreal Bog and | 2.C.4.a. North American Scrub and Herb | MG063. Western North American |
| 2154 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.4. Temperate and Boreal Bog and | 2.C.4.a. North American Scrub and Herb | MG063. Western North American |
| 2155 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.4. Temperate and Boreal Bog and | 2.C.4.a. North American Scrub and Herb | MG063. Western North American |
| 2156 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.4. Temperate and Boreal Bog and | 2.C.4.a. North American Scrub and Herb | MG063. Western North American |
| 2157 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.4. Temperate and Boreal Bog and | 2.C.4.a. North American Scrub and Herb | MG063. Western North American |
| 2158 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.4. Temperate and Boreal Bog and | 2.C.4.a. North American Scrub and Herb | MG063. Western North American |
| 2159 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.4. Temperate and Boreal Bog and | 2.C.4.a. North American Scrub and Herb | MG063. Western North American |
| 2160 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.4. Temperate and Boreal Bog and | 2.C.4.a. North American Scrub and Herb | MG063. Western North American |
| 2161 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2162 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2163 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2164 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2165 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2166 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2167 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2168 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |

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| 2169 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2170 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2171 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2172 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2173 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2174 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2175 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2176 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2177 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2178 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2179 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2180 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2181 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2182 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2183 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2184 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2185 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2186 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2187 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2188 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2189 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2190 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2191 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2192 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2193 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2194 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2195 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2196 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2197 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2198 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2199 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2200 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2201 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2202 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2203 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2204 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2205 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2206 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2207 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2208 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2209 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2210 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2211 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2212 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG073. Western North American Freshwater |
| 2213 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2214 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2215 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2216 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2217 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2218 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2219 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2220 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2221 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2222 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2223 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2224 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2225 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2226 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2227 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2228 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2229 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2230 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2231 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2232 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2233 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2234 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2235 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2236 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2237 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2238 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |

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|---|---|---|---|---|---|
| 2239 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2240 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2241 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2242 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2243 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2244 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2245 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2246 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2247 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2248 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2249 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2250 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2251 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2252 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2253 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2254 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2255 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2256 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2257 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2258 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2259 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2260 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2261 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2262 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2263 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2264 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2265 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2266 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2267 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2268 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2269 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2270 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2271 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2272 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2273 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2274 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2275 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2276 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2277 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2278 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2279 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2280 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2281 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2282 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2283 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2284 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2285 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG074. Western North America Vernal Pool |
| 2286 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2287 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2288 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2289 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2290 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2291 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2292 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2293 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2294 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2295 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2296 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2297 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2298 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2299 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2300 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2301 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2302 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2303 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2304 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2305 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2306 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2307 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2308 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |

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| 2309 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2310 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2311 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2312 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2313 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2314 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2315 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2316 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2317 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2318 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2319 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2320 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2321 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2322 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2323 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2324 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2325 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2326 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2327 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2328 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2329 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2330 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2331 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2332 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2333 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2334 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2335 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2336 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2337 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2338 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2339 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2340 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2341 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2342 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2343 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2344 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2345 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2346 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2347 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2348 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2349 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2350 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2351 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2352 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2353 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2354 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2355 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2356 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2357 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2358 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2359 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2360 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2361 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2362 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2363 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2364 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2365 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2366 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2367 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2368 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2369 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2370 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2371 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2372 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2373 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2374 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2375 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2376 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2377 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2378 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |

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| 2379 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.5. Temperate and Boreal Freshwater | 2.C.5.b. Western North American Freshwater | MG075. Western North America Wet Meadow |
| 2380 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2381 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2382 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2383 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2384 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2385 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2386 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2387 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2388 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2389 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2390 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2391 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2392 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2393 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2394 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2395 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2396 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2397 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2398 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2399 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2400 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2401 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2402 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2403 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2404 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2405 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2406 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2407 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2408 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2409 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2410 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2411 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2412 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2413 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2414 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2415 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2416 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2417 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2418 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2419 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2420 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2421 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2422 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2423 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2424 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2425 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2426 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2427 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2428 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2429 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2430 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2431 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2432 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2433 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2434 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2435 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2436 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2437 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2438 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2439 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2440 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2441 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2442 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.c. Temperate and Boreal Pacific Coastal | MG081. North American Pacific Coastal Salt |
| 2443 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG082. Cool Semi-Desert Alkali–Saline |
| 2444 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG082. Cool Semi-Desert Alkali–Saline |
| 2445 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG082. Cool Semi-Desert Alkali–Saline |
| 2446 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG082. Cool Semi-Desert Alkali–Saline |
| 2447 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG082. Cool Semi-Desert Alkali–Saline |
| 2448 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG082. Cool Semi-Desert Alkali–Saline |

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| 2449 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG082. Cool Semi-Desert Alkali–Saline |
| 2450 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG082. Cool Semi-Desert Alkali–Saline |
| 2451 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG082. Cool Semi-Desert Alkali–Saline |
| 2452 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2453 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2454 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2455 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2456 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2457 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2458 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2459 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2460 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2461 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2462 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2463 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2464 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2465 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2466 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2467 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2468 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2469 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2470 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2471 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2472 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2473 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2474 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2475 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2476 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2477 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2478 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2479 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2480 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2481 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2482 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2483 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2484 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2485 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2486 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2487 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2488 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2489 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2490 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2491 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2492 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2493 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2494 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2495 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2496 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2497 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2498 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2499 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2500 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2501 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2502 | 2. Mesomorphic Shrub and Herb Vegetation (Shrubland and | 2.C. Temperate and Boreal Shrubland and | 2.C.6. Temperate and Boreal Salt Marsh | 2.C.6.d. Western North American Interior | MG083. Warm Semi-Desert/Mediterranean |
| 2503 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2504 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2505 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2506 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2507 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2508 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2509 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2510 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2511 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2512 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2513 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2514 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2515 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2516 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2517 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2518 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |

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|---|---|---|---|---|---|---|
| 2519 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2520 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2521 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2522 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2523 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2524 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2525 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2526 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2527 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2528 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2529 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2530 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2531 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2532 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2533 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2534 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2535 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2536 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2537 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2538 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2539 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2540 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2541 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2542 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2543 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2544 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2545 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2546 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2547 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2548 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2549 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2550 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2551 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2552 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2553 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2554 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2555 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2556 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2557 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2558 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2559 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2560 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2561 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2562 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2563 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2564 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2565 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2566 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2567 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2568 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2569 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2570 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2571 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2572 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2573 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2574 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2575 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2576 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2577 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2578 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2579 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2580 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2581 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2582 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2583 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2584 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2585 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2586 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2587 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2588 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |

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| 2589 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2590 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2591 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2592 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2593 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2594 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2595 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2596 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2597 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2598 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2599 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2600 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2601 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2602 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2603 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2604 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2605 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2606 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2607 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2608 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2609 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2610 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2611 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2612 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2613 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2614 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2615 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2616 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2617 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2618 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2619 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2620 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2621 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2622 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2623 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2624 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2625 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2626 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2627 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2628 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2629 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2630 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2631 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2632 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2633 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2634 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2635 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2636 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2637 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2638 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2639 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2640 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2641 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2642 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2643 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2644 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2645 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2646 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2647 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2648 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2649 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2650 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2651 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2652 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2653 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2654 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2655 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2656 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2657 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2658 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |

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| 2659 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2660 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2661 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2662 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2663 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2664 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2665 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2666 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2667 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2668 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2669 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2670 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2671 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2672 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2673 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2674 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2675 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2676 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG088. Mojavean–Sonoran Desert Scrub |
| 2677 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG089. Viscaino–Baja California Desert |
| 2678 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG089. Viscaino–Baja California Desert |
| 2679 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG089. Viscaino–Baja California Desert |
| 2680 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG089. Viscaino–Baja California Desert |
| 2681 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG089. Viscaino–Baja California Desert |
| 2682 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG089. Viscaino–Baja California Desert |
| 2683 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG089. Viscaino–Baja California Desert |
| 2684 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG089. Viscaino–Baja California Desert |
| 2685 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG089. Viscaino–Baja California Desert |
| 2686 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG089. Viscaino–Baja California Desert |
| 2687 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2688 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2689 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2690 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2691 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2692 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2693 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2694 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2695 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2696 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2697 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2698 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2699 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2700 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2701 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2702 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2703 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2704 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2705 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2706 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2707 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2708 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2709 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2710 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2711 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2712 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2713 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2714 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2715 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2716 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2717 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2718 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2719 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2720 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2721 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2722 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2723 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2724 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2725 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2726 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2727 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2728 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |

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| 2729 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2730 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2731 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2732 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2733 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2734 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2735 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2736 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2737 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2738 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2739 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2740 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2741 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2742 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2743 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2744 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2745 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2746 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2747 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2748 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2749 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2750 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2751 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2752 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2753 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2754 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2755 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2756 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2757 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2758 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2759 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2760 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2761 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2762 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2763 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2764 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2765 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2766 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2767 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2768 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2769 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2770 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2771 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2772 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2773 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2774 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2775 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2776 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2777 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2778 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2779 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2780 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2781 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2782 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2783 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2784 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2785 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2786 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2787 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2788 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2789 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2790 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2791 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2792 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.A. Warm Semi-Desert Scrub and Grassland | 3.A.1. Warm Semi-Desert Scrub and | 3.A.1.a. Sonoran and Chihuahuan Semi-Desert | MG092. Madrean Warm Semi-Desert Wash |
| 2793 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG093. Cool Semi-Desert Alkali-Saline Flats |
| 2794 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG093. Cool Semi-Desert Alkali-Saline Flats |
| 2795 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG093. Cool Semi-Desert Alkali-Saline Flats |
| 2796 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG093. Cool Semi-Desert Alkali-Saline Flats |
| 2797 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG093. Cool Semi-Desert Alkali-Saline Flats |
| 2798 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG093. Cool Semi-Desert Alkali-Saline Flats |

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|---|---|---|---|---|---|
| 2799 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG093. Cool Semi-Desert Alkali-Saline Flats |
| 2800 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG093. Cool Semi-Desert Alkali-Saline Flats |
| 2801 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG093. Cool Semi-Desert Alkali-Saline Flats |
| 2802 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG093. Cool Semi-Desert Alkali-Saline Flats |
| 2803 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG093. Cool Semi-Desert Alkali-Saline Flats |
| 2804 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG093. Cool Semi-Desert Alkali-Saline Flats |
| 2805 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG093. Cool Semi-Desert Alkali-Saline Flats |
| 2806 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG093. Cool Semi-Desert Alkali-Saline Flats |
| 2807 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG093. Cool Semi-Desert Alkali-Saline Flats |
| 2808 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG095. Cool Semi-desert wash and |
| 2809 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG095. Cool Semi-desert wash and |
| 2810 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG095. Cool Semi-desert wash and |
| 2811 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG095. Cool Semi-desert wash and |
| 2812 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG095. Cool Semi-desert wash and |
| 2813 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG095. Cool Semi-desert wash and |
| 2814 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG095. Cool Semi-desert wash and |
| 2815 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG095. Cool Semi-desert wash and |
| 2816 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG095. Cool Semi-desert wash and |
| 2817 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG095. Cool Semi-desert wash and |
| 2818 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG095. Cool Semi-desert wash and |
| 2819 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG095. Cool Semi-desert wash and |
| 2820 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG095. Cool Semi-desert wash and |
| 2821 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG096. Western North America Tall Sage |
| 2822 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG096. Western North America Tall Sage |
| 2823 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG096. Western North America Tall Sage |
| 2824 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG096. Western North America Tall Sage |
| 2825 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG096. Western North America Tall Sage |
| 2826 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG096. Western North America Tall Sage |
| 2827 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG096. Western North America Tall Sage |
| 2828 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG096. Western North America Tall Sage |
| 2829 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG096. Western North America Tall Sage |
| 2830 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG096. Western North America Tall Sage |
| 2831 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG096. Western North America Tall Sage |
| 2832 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG096. Western North America Tall Sage |
| 2833 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG096. Western North America Tall Sage |
| 2834 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG096. Western North America Tall Sage |
| 2835 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG096. Western North America Tall Sage |
| 2836 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG096. Western North America Tall Sage |
| 2837 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG096. Western North America Tall Sage |
| 2838 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG096. Western North America Tall Sage |
| 2839 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG096. Western North America Tall Sage |
| 2840 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG096. Western North America Tall Sage |
| 2841 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG096. Western North America Tall Sage |
| 2842 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG096. Western North America Tall Sage |
| 2843 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG096. Western North America Tall Sage |
| 2844 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG096. Western North America Tall Sage |
| 2845 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG096. Western North America Tall Sage |
| 2846 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG097. Western North America Dwarf Sage |
| 2847 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG097. Western North America Dwarf Sage |
| 2848 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG097. Western North America Dwarf Sage |
| 2849 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG097. Western North America Dwarf Sage |
| 2850 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG097. Western North America Dwarf Sage |
| 2851 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG097. Western North America Dwarf Sage |
| 2852 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG097. Western North America Dwarf Sage |
| 2853 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG097. Western North America Dwarf Sage |
| 2854 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG097. Western North America Dwarf Sage |
| 2855 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG097. Western North America Dwarf Sage |
| 2856 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG097. Western North America Dwarf Sage |
| 2857 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG097. Western North America Dwarf Sage |
| 2858 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG097. Western North America Dwarf Sage |
| 2859 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG097. Western North America Dwarf Sage |
| 2860 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG097. Western North America Dwarf Sage |
| 2861 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG097. Western North America Dwarf Sage |
| 2862 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG097. Western North America Dwarf Sage |
| 2863 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG097. Western North America Dwarf Sage |
| 2864 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG097. Western North America Dwarf Sage |
| 2865 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG097. Western North America Dwarf Sage |
| 2866 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2867 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2868 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |

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|---|---|---|---|---|---|---|
| 2869 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2870 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2871 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2872 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2873 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2874 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2875 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2876 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2877 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2878 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2879 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2880 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2881 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2882 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2883 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2884 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2885 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2886 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2887 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2888 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2889 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2890 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2891 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2892 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2893 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2894 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2895 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2896 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2897 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2898 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2899 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2900 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2901 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2902 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2903 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2904 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2905 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2906 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2907 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2908 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2909 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2910 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2911 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2912 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2913 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2914 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2915 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2916 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2917 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2918 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2919 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2920 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2921 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2922 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2923 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2924 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2925 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2926 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2927 | 3. Xeromorphic Scrub and Herb Vegetation (Semi-Desert) | 3.B. Cool Semi-Desert Scrub and Grassland | 3.B.1. Cool Semi-Desert Scrub and | 3.B.1.a. Western North American Cool Semi- | MG098. Inter-Mountain Dry Shrubland and |
| 2928 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG099. Rocky Mountain Alpine Scrub, Forb |
| 2929 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG099. Rocky Mountain Alpine Scrub, Forb |
| 2930 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG099. Rocky Mountain Alpine Scrub, Forb |
| 2931 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG099. Rocky Mountain Alpine Scrub, Forb |
| 2932 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG099. Rocky Mountain Alpine Scrub, Forb |
| 2933 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG099. Rocky Mountain Alpine Scrub, Forb |
| 2934 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG099. Rocky Mountain Alpine Scrub, Forb |
| 2935 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2936 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2937 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2938 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |

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| 2939 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2940 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2941 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2942 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2943 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2944 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2945 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2946 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2947 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2948 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2949 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2950 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2951 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2952 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2953 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2954 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2955 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2956 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2957 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2958 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2959 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2960 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2961 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2962 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2963 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2964 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2965 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2966 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2967 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2968 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2969 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2970 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2971 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2972 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2973 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2974 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2975 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2976 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2977 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2978 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2979 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2980 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2981 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2982 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2983 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2984 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2985 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2986 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2987 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2988 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2989 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2990 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2991 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2992 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2993 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2994 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2995 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2996 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2997 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2998 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 2999 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 3000 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 3001 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 3002 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 3003 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 3004 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 3005 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 3006 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 3007 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 3008 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |

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| 3009 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 3010 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 3011 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 3012 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 3013 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 3014 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 3015 | 4. Cryomorphic Shrub and Herb Vegetation (Polar and High Montane | 4.B. Temperate and Boreal Alpine Vegetation | 4.B.1. Alpine Scrub, Forb Meadow, and | 4.B.1.b. Western North America Alpine Scrub, | MG101. Vancouverian Alpine Scrub, Forb |
| 3016 | 5. Hydromorphic Vegetation (Aquatic Vegetation) | 5.A. Saltwater Aquatic Vegetation | 5.A.1. Marine and Estuarine Saltwater | 5.A.1.c. Temperate Pacific Saltwater Aquatic | MG106. Temperate Pacific Intertidal Shore |
| 3017 | 5. Hydromorphic Vegetation (Aquatic Vegetation) | 5.A. Saltwater Aquatic Vegetation | 5.A.1. Marine and Estuarine Saltwater | 5.A.1.c. Temperate Pacific Saltwater Aquatic | MG106. Temperate Pacific Intertidal Shore |
| 3018 | 5. Hydromorphic Vegetation (Aquatic Vegetation) | 5.A. Saltwater Aquatic Vegetation | 5.A.1. Marine and Estuarine Saltwater | 5.A.1.c. Temperate Pacific Saltwater Aquatic | MG106. Temperate Pacific Intertidal Shore |
| 3019 | 5. Hydromorphic Vegetation (Aquatic Vegetation) | 5.A. Saltwater Aquatic Vegetation | 5.A.1. Marine and Estuarine Saltwater | 5.A.1.c. Temperate Pacific Saltwater Aquatic | MG106. Temperate Pacific Intertidal Shore |
| 3020 | 5. Hydromorphic Vegetation (Aquatic Vegetation) | 5.A. Saltwater Aquatic Vegetation | 5.A.1. Marine and Estuarine Saltwater | 5.A.1.c. Temperate Pacific Saltwater Aquatic | MG106. Temperate Pacific Intertidal Shore |
| 3021 | 5. Hydromorphic Vegetation (Aquatic Vegetation) | 5.B. Freshwater Aquatic Vegetation | 5.B.1. Freshwater Aquatic Vegetation | 5.B.1.a. North American Freshwater Aquatic | MG109. Western North American Freshwater |
| 3022 | 5. Hydromorphic Vegetation (Aquatic Vegetation) | 5.B. Freshwater Aquatic Vegetation | 5.B.1. Freshwater Aquatic Vegetation | 5.B.1.a. North American Freshwater Aquatic | MG109. Western North American Freshwater |
| 3023 | 5. Hydromorphic Vegetation (Aquatic Vegetation) | 5.B. Freshwater Aquatic Vegetation | 5.B.1. Freshwater Aquatic Vegetation | 5.B.1.a. North American Freshwater Aquatic | MG109. Western North American Freshwater |
| 3024 | 5. Hydromorphic Vegetation (Aquatic Vegetation) | 5.B. Freshwater Aquatic Vegetation | 5.B.1. Freshwater Aquatic Vegetation | 5.B.1.a. North American Freshwater Aquatic | MG109. Western North American Freshwater |
| 3025 | 5. Hydromorphic Vegetation (Aquatic Vegetation) | 5.B. Freshwater Aquatic Vegetation | 5.B.1. Freshwater Aquatic Vegetation | 5.B.1.a. North American Freshwater Aquatic | MG109. Western North American Freshwater |
| 3026 | 5. Hydromorphic Vegetation (Aquatic Vegetation) | 5.B. Freshwater Aquatic Vegetation | 5.B.1. Freshwater Aquatic Vegetation | 5.B.1.a. North American Freshwater Aquatic | MG109. Western North American Freshwater |
| 3027 | 5. Hydromorphic Vegetation (Aquatic Vegetation) | 5.B. Freshwater Aquatic Vegetation | 5.B.1. Freshwater Aquatic Vegetation | 5.B.1.a. North American Freshwater Aquatic | MG109. Western North American Freshwater |
| 3028 | 5. Hydromorphic Vegetation (Aquatic Vegetation) | 5.B. Freshwater Aquatic Vegetation | 5.B.1. Freshwater Aquatic Vegetation | 5.B.1.a. North American Freshwater Aquatic | MG109. Western North American Freshwater |
| 3029 | 5. Hydromorphic Vegetation (Aquatic Vegetation) | 5.B. Freshwater Aquatic Vegetation | 5.B.1. Freshwater Aquatic Vegetation | 5.B.1.a. North American Freshwater Aquatic | MG109. Western North American Freshwater |
| 3030 | 5. Hydromorphic Vegetation (Aquatic Vegetation) | 5.B. Freshwater Aquatic Vegetation | 5.B.1. Freshwater Aquatic Vegetation | 5.B.1.a. North American Freshwater Aquatic | MG109. Western North American Freshwater |
| 3031 | 6. Lithomorphic Vegetation (Nonvascular and Sparse Vascular Rock | 6.B. Mediterranean, Temperate, and Boreal | 6.B.1. Mediterranean Cliff, Scree, and | 6.B.1.a. North American Mediterranean Rock | MG110. California Cliff, Scree, and Other |
| 3032 | 6. Lithomorphic Vegetation (Nonvascular and Sparse Vascular Rock | 6.B. Mediterranean, Temperate, and Boreal | 6.B.1. Mediterranean Cliff, Scree, and | 6.B.1.a. North American Mediterranean Rock | MG110. California Cliff, Scree, and Other |
| 3033 | 6. Lithomorphic Vegetation (Nonvascular and Sparse Vascular Rock | 6.B. Mediterranean, Temperate, and Boreal | 6.B.1. Mediterranean Cliff, Scree, and | 6.B.1.a. North American Mediterranean Rock | MG110. California Cliff, Scree, and Other |
| 3034 | 6. Lithomorphic Vegetation (Nonvascular and Sparse Vascular Rock | 6.B. Mediterranean, Temperate, and Boreal | 6.B.1. Mediterranean Cliff, Scree, and | 6.B.2.b. Western North American Temperate | MG114. Vancouverian Cliff, Scree and Other |
| 3035 | 6. Lithomorphic Vegetation (Nonvascular and Sparse Vascular Rock | 6.B. Mediterranean, Temperate, and Boreal | 6.B.1. Mediterranean Cliff, Scree, and | 6.B.2.b. Western North American Temperate | MG114. Vancouverian Cliff, Scree and Other |
| 3036 | 6. Lithomorphic Vegetation (Nonvascular and Sparse Vascular Rock | 6.B. Mediterranean, Temperate, and Boreal | 6.B.1. Mediterranean Cliff, Scree, and | 6.B.2.b. Western North American Temperate | MG114. Vancouverian Cliff, Scree and Other |
| 3037 | 6. Lithomorphic Vegetation (Nonvascular and Sparse Vascular Rock | 6.C. Semi-Desert Nonvascular and Sparse | 6.C.1. Warm Semi-Desert Cliff, Scree, | 6.C.1.a. North American Warm Semi-Desert | MG117. North American Warm Semi-Desert |
| 3038 | 6. Lithomorphic Vegetation (Nonvascular and Sparse Vascular Rock | 6.C. Semi-Desert Nonvascular and Sparse | 6.C.1. Warm Semi-Desert Cliff, Scree, | 6.C.1.a. North American Warm Semi-Desert | MG117. North American Warm Semi-Desert |
| 3039 | 6. Lithomorphic Vegetation (Nonvascular and Sparse Vascular Rock | 6.C. Semi-Desert Nonvascular and Sparse | 6.C.1. Warm Semi-Desert Cliff, Scree, | 6.C.1.a. North American Warm Semi-Desert | MG117. North American Warm Semi-Desert |
| 3040 | 6. Lithomorphic Vegetation (Nonvascular and Sparse Vascular Rock | 6.C. Semi-Desert Nonvascular and Sparse | 6.C.1. Warm Semi-Desert Cliff, Scree, | 6.C.1.a. North American Warm Semi-Desert | MG117. North American Warm Semi-Desert |
| 3041 | 6. Lithomorphic Vegetation (Nonvascular and Sparse Vascular Rock | 6.C. Semi-Desert Nonvascular and Sparse | 6.C.1. Warm Semi-Desert Cliff, Scree, | 6.C.1.a. North American Warm Semi-Desert | MG117. North American Warm Semi-Desert |
| 3042 | 6. Lithomorphic Vegetation (Nonvascular and Sparse Vascular Rock | 6.C. Semi-Desert Nonvascular and Sparse | 6.C.1. Warm Semi-Desert Cliff, Scree, | 6.C.1.a. North American Warm Semi-Desert | MG117. North American Warm Semi-Desert |
| 3043 | 6. Lithomorphic Vegetation (Nonvascular and Sparse Vascular Rock | 6.C. Semi-Desert Nonvascular and Sparse | 6.C.1. Warm Semi-Desert Cliff, Scree, | 6.C.1.a. North American Warm Semi-Desert | MG117. North American Warm Semi-Desert |
| 3044 | 6. Lithomorphic Vegetation (Nonvascular and Sparse Vascular Rock | 6.C. Semi-Desert Nonvascular and Sparse | 6.C.1. Warm Semi-Desert Cliff, Scree, | 6.C.1.a. North American Warm Semi-Desert | MG117. North American Warm Semi-Desert |
| 3045 | 6. Lithomorphic Vegetation (Nonvascular and Sparse Vascular Rock | 6.C. Semi-Desert Nonvascular and Sparse | 6.C.1. Warm Semi-Desert Cliff, Scree, | 6.C.1.a. North American Warm Semi-Desert | MG117. North American Warm Semi-Desert |
| 3046 | 6. Lithomorphic Vegetation (Nonvascular and Sparse Vascular Rock | 6.C. Semi-Desert Nonvascular and Sparse | 6.C.1. Warm Semi-Desert Cliff, Scree, | 6.C.1.a. North American Warm Semi-Desert | MG117. North American Warm Semi-Desert |
| 3047 | 6. Lithomorphic Vegetation (Nonvascular and Sparse Vascular Rock | 6.C. Semi-Desert Nonvascular and Sparse | 6.C.1. Warm Semi-Desert Cliff, Scree, | 6.C.1.a. North American Warm Semi-Desert | MG117. North American Warm Semi-Desert |
| 3048 | 6. Lithomorphic Vegetation (Nonvascular and Sparse Vascular Rock | 6.C. Semi-Desert Nonvascular and Sparse | 6.C.1. Warm Semi-Desert Cliff, Scree, | 6.C.1.a. North American Warm Semi-Desert | MG117. North American Warm Semi-Desert |
| 3049 | 6. Lithomorphic Vegetation (Nonvascular and Sparse Vascular Rock | 6.C. Semi-Desert Nonvascular and Sparse | 6.C.1. Warm Semi-Desert Cliff, Scree, | 6.C.1.a. North American Warm Semi-Desert | MG117. North American Warm Semi-Desert |
| 3050 | 6. Lithomorphic Vegetation (Nonvascular and Sparse Vascular Rock | 6.C. Semi-Desert Nonvascular and Sparse | 6.C.1. Warm Semi-Desert Cliff, Scree, | 6.C.1.a. North American Warm Semi-Desert | MG117. North American Warm Semi-Desert |
| 3051 | 6. Lithomorphic Vegetation (Nonvascular and Sparse Vascular Rock | 6.C. Semi-Desert Nonvascular and Sparse | 6.C.1. Warm Semi-Desert Cliff, Scree, | 6.C.1.a. North American Warm Semi-Desert | MG117. North American Warm Semi-Desert |
| 3052 | 6. Lithomorphic Vegetation (Nonvascular and Sparse Vascular Rock | 6.C. Semi-Desert Nonvascular and Sparse | 6.C.1. Warm Semi-Desert Cliff, Scree, | 6.C.1.a. North American Warm Semi-Desert | MG117. North American Warm Semi-Desert |
| 3053 | 6. Lithomorphic Vegetation (Nonvascular and Sparse Vascular Rock | 6.C. Semi-Desert Nonvascular and Sparse | 6.C.1. Warm Semi-Desert Cliff, Scree, | 6.C.1.a. North American Warm Semi-Desert | MG117. North American Warm Semi-Desert |

| Scientific Name | Common Name | Global and State Rank | CaCode | CTT Code | Invasive Species Rank |
|---|---|---|---|---|---|
| Mixed North Slope Forest | | G4 S4 | | CTT81500CA | |
| Mixed North Slope Cismontane Woodland | | G3 S3.2 | | *CTT71420CA | |
| *Aesculus californica* (California buckeye groves) Alliance | California buckeye groves | G3 S3 | *75.100.00 | | |
| *Aesculus californica* | | | *75.100.03 | | |
| *Aesculus californica - Umbellularia californica / Diplacus aurantiacus* | | | *75.100.02 | | |
| *Aesculus californica - Umbellularia californica / Holodiscus discolor* | | | *75.100.06 | | |
| *Aesculus californica / Datisca glomerata* | | | *75.100.04 | | |
| *Aesculus californica / Lupinus albifrons* | | | *75.100.05 | | |
| *Aesculus californica / Toxicodendron diversilobum / moss* | | | *75.100.01 | | |
| *Juglans californica* (California walnut groves) Alliance | California walnut groves | G3 S3 | *72.100.00 | | |
| California Walnut Woodland | | G2 S2.1 | | *CTT71210CA | |
| Walnut Forest | | G1 S1.1 | | *CTT81600CA | |
| *Juglans californica - Quercus agrifolia* | | | *72.100.08 | | |
| *Juglans californica / annual herbaceous* | | | *72.100.03 | | |
| *Juglans californica / Artemisia californica / Leymus condensatus* | | | *72.100.04 | | |
| *Juglans californica / Ceanothus spinosus* | | | *72.100.05 | | |
| *Juglans californica / Heteromeles arbutifolia* | | | *72.100.06 | | |
| *Juglans californica / Malosma laurina* | | | *72.100.07 | | |
| *Lyonothamnus floribundus* (Catalina ironwood groves) Special Stands | Catalina ironwood groves | G2 S2 | *77.000.00 | | |
| Island Ironwood Forest | | G2 S2.1 | | *CTT81700CA | |
| *Quercus agrifolia* (Coast live oak woodland) Alliance | Coast live oak woodland | G5 S4 (some associations are of high priority for | 71.060.00 | | |
| Coast Live Oak Woodland | | G4 S4 | | CTT71160CA | |
| Coast Live Oak Forest | | G4 S4 | | CTT81310CA | |
| Central Coast Live Oak Riparian Forest | | G3 S3.2 | | *CTT61220CA | |
| Southern Coast Live Oak Riparian Forest | | G4 S4 | | CTT61310CA | |
| *Quercus agrifolia* | | | 71.060.02 | | |
| *Quercus agrifolia - Acer macrophyllum / Frangula californica - Holodiscus discolor* | | | 71.060.03 | | |
| *Quercus agrifolia - Aesculus californica* | | | 71.060.52 | | |
| *Quercus agrifolia - Arbutus menziesii* | | | 71.060.40 | | |
| *Quercus agrifolia - Arbutus menziesii - Toxicodendron diversilobum* | | | 71.060.41 | | |
| *Quercus agrifolia - Arbutus menziesii - Umbellularia californica* | | | 71.060.26 | | |
| *Quercus agrifolia - Arbutus menziesii / Corylus cornuta - Rubus spp.* | | | 71.060.10 | | |
| *Quercus agrifolia - Juglans californica* | | | 71.060.27 | | |
| *Quercus agrifolia - Pinus coulteri* | | | 71.060.23 | | |
| *Quercus agrifolia - Platanus racemosa - Salix laevigata* | | | 71.060.43 | | |
| *Quercus agrifolia - Platanus racemosa / Toxicodendron diversilobum* | | | 71.060.42 | | |
| *Quercus agrifolia - Quercus douglasii* | | | 71.060.01 | | |
| *Quercus agrifolia - Quercus engelmannii / Eriogonum fasciculatum* | | | 71.060.45 | | |
| *Quercus agrifolia - Quercus kelloggii* | | | *71.060.18 | | |
| *Quercus agrifolia - Salix lasiolepis* | | | 71.060.47 | | |
| *Quercus agrifolia - Umbellularia californica* | | | 71.060.48 | | |
| *Quercus agrifolia - Umbellularia californica / Arctostaphylos glauca - Toxicodendron diversilobum* | | | 71.060.51 | | |
| *Quercus agrifolia - Umbellularia californica / Ceanothus oliganthus* | | | 71.060.49 | | |
| *Quercus agrifolia - Umbellularia californica / Heteromeles arbutifolia - Quercus berberidifolia* | | | 71.060.05 | | |
| *Quercus agrifolia - Umbellularia californica / Toxicodendron diversilobum* | | | 71.060.50 | | |
| *Quercus agrifolia / Adenostoma fasciculatum (- Salvia mellifera)* | | | 71.060.07 | | |
| *Quercus agrifolia / Artemisia californica* | | | 71.060.08 | | |
| *Quercus agrifolia / Ceanothus oliganthus* | | | 71.060.16 | | |
| *Quercus agrifolia / Ceanothus spinosus* | | | 71.060.34 | | |
| *Quercus agrifolia / chaparral* | | | 71.060.29 | | |
| *Quercus agrifolia / coastal sage scrub* | | | 71.060.28 | | |
| *Quercus agrifolia / Equisetum hymale* | | | 71.060.35 | | |
| *Quercus agrifolia / Eriogonum wrightii* | | | 71.060.22 | | |
| *Quercus agrifolia / Frangula californica - Heteromeles arbutifolia* | | | 71.060.06 | | |
| *Quercus agrifolia / Frangula californica ssp. tomentella / Stachys pycnantha* | | | 71.060.36 | | |
| *Quercus agrifolia / grass* | | | 71.060.09 | | |
| *Quercus agrifolia / Heteromeles arbutifolia* | | | 71.060.14 | | |
| *Quercus agrifolia / Heteromeles arbutifolia - Toxicodendron diversilobum* | | | 71.060.15 | | |
| *Quercus agrifolia / Holodiscus discolor - Symphoricarpos albus* | | | 71.060.11 | | |
| *Quercus agrifolia / Quercus berberidifolia* | | | 71.060.37 | | |
| *Quercus agrifolia / Rubus spp. / Pteridium aquilinum* | | | 71.060.04 | | |
| *Quercus agrifolia / Salvia leucophylla - Artemisia californica* | | | 71.060.38 | | |
| *Quercus agrifolia / Symphoricarpos albus* | | | 71.060.17 | | |
| *Quercus agrifolia / Toxicodendron diversilobum* | | | 71.060.13 | | |
| *Quercus agrifolia / Toxicodendron diversilobum - (Corylus cornuta)* | | | 71.060.25 | | |
| *Quercus agrifolia / Toxicodendron diversilobum / grass* | | | 71.060.12 | | |
| *Quercus agrifolia / Toxicodendron diversilobum riparian* | | | 71.060.39 | | |
| *Quercus chrysolepis* (Canyon live oak forest) Alliance | Canyon live oak forest | G5 S5 (some associations are of high priority for | 71.050.00 | | |

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|---|---|---|---|---|
| Canyon Live Oak Forest | | G4 S4 | | CTT81320CA |
| Canyon Live Oak Ravine Forest | | G3 S3.3 | | *CTT61350CA |
| *Pinus ponderosa - Quercus chrysolepis / Arctostaphylos viscida* | | | 71.050.31 | |
| *Quercus chrysolepis* | | | 71.050.04 | |
| *Quercus chrysolepis - Arbutus menziesii - Lithocarpus densiflorus var. densiflorus* | | | 71.050.01 | |
| *Quercus chrysolepis - Calocedrus decurrens* | | | 71.050.19 | |
| *Quercus chrysolepis - Ceanothus integerrimus* | | | *71.050.03 | |
| *Quercus chrysolepis - Pinus jeffreyi* | | | 71.050.32 | |
| *Quercus chrysolepis - Pinus lambertiana* | | | *71.050.02 | |
| *Quercus chrysolepis - Pinus ponderosa* | | | 71.050.18 | |
| *Quercus chrysolepis - Pinus sabiniana* | | | 71.050.16 | |
| *Quercus chrysolepis - Quercus garryana var. garryana / Pentagramma triangularis* | | | *71.050.07 | |
| *Quercus chrysolepis - Quercus kelloggii - Acer macrophyllum* | | | 71.050.27 | |
| *Quercus chrysolepis - Quercus kelloggii / (Toxicodendron diversilobum)* | | | 71.050.26 | |
| *Quercus chrysolepis - Quercus lobata / Vitis californica* | | | 71.050.28 | |
| *Quercus chrysolepis - Quercus wislizeni* | | | 71.050.29 | |
| *Quercus chrysolepis - Umbellularia californica* | | | 71.050.13 | |
| *Quercus chrysolepis - Umbellularia californica / Vitis californica* | | | 71.050.30 | |
| *Quercus chrysolepis / Arctostaphylos mewukka* | | | 71.050.09 | |
| *Quercus chrysolepis / Arctostaphylos patula* | | | 71.050.15 | |
| *Quercus chrysolepis / Arctostaphylos viscida* | | | 71.050.14 | |
| *Quercus chrysolepis / Dryopteris arguta* | | | 71.050.17 | |
| *Quercus chrysolepis / Lithocarpus densiflorus var. echinoides* | | | 71.050.25 | |
| *Quercus chrysolepis / Polystichum imbricans* | | | 71.050.08 | |
| *Querecus chrysolepis / Rhamnus ilicifolia* | | | 71.050.33 | |
| *Quercus chrysolepis / Toxicodendron diversilobum* | | | 71.050.21 | |
| *Quercus douglasii* (Blue oak woodland) Alliance | Blue oak woodland | G4 S4 (some associations are of high priority for | 71.020.00 | |
| Blue Oak Woodland | | G3 S3.2 | | *CTT71140CA |
| *Quercus douglasii - Aesculus californica / Asclepias fascicularis* | | | 71.020.44 | |
| *Quercus douglasii - Aesculus californicus / grass* | | | 71.020.24 | |
| *Quercus douglasii - Pinus sabiniana* | | | 71.020.02 | |
| Digger Pine Oak Woodland | | G4 S4 | | CTT71410CA |
| *Quercus douglasii - Pinus sabiniana / Arctostaphylos viscida* | | | 71.020.04 | |
| *Quercus douglasii - Pinus sabiniana / Ceanothus cuneatus - Cercocapus montanus* | | | 71.020.03 | |
| *Quercus douglasii - Pinus sabiniana / Cercocarpus montanus* | | | 71.020.25 | |
| *Quercus douglasii - Quercus agrifolia* | | | 71.020.01 | |
| *Quercus douglasii - Quercus lobata* | | | 71.020.11 | |
| *Quercus douglasii - Quercus wislizeni* | | | 71.020.06 | |
| *Quercus douglasii - Quercus wislizeni - Pinus sabiniana* | | | 71.020.18 | |
| *Quercus douglasii - Quercus wislizeni / Bromus spp. - Daucus pusillus* | | | 71.020.17 | |
| *Quercus douglasii - Quercus wislizeni / Ceanothus cuneatus* | | | 71.020.07 | |
| *Quercus douglasii - Quercus wislizeni / Lithophragma cymbalaria* | | | 71.020.46 | |
| *Quercus douglasii / Juniperus californica - Cercocarpus montanus* | | | 71.020.42 | |
| *Quercus douglasii / Achnatherum lemmonii* | | | 71.020.43 | |
| *Quercus douglasii / Amsinckia intermedia - Plagiobothrys nothofulvus* | | | 71.020.27 | |
| *Quercus douglasii / Arctostaphylos manzanita / herbaceous* | | | 71.020.22 | |
| *Quercus douglasii / Brachypodium distachyon* | | | 71.020.28 | |
| *Quercus douglasii / Bromus hordeaceus - Lolium multiflorum* | | | 71.020.30 | |
| *Quercus douglasii / Bromus hordeaceus - Madia gracilis* | | | 71.020.29 | |
| *Quercus douglasii / Bromus hordeaceus - Triteleia laxa* | | | 71.020.31 | |
| *Quercus douglasii / Bromus spp. - Daucus pusillus* | | | 71.020.16 | |
| *Quercus douglasii / Ceanothus cuneatus* | | | 71.020.12 | |
| *Quercus douglasii / Cercocarpus montanus / Bowlesia incana - Lithophragma affine* | | | *71.020.14 | |
| *Quercus douglasii / Collinsia sparsiflora - Rigiopappus leptocladus* | | | 71.020.32 | |
| *Quercus douglasii / Delphinium parryi - Phacelia imbricata* | | | 71.020.33 | |
| *Quercus douglasii / Ericameria linearifolia* | | | 71.020.08 | |
| *Quercus douglasii / Ericameria linearifolia - Juniperus californica* | | | 71.020.19 | |
| *Quercus douglasii / Eriogonum elongatum / Lotus subpinnatus - Plantago erecta* | | | 71.020.34 | |
| *Quercus douglasii / Eriogonum fasciculatum / herbaceous* | | | 71.020.20 | |
| *Quercus douglasii / Erodium moschatum - Hordeum leporinum* | | | 71.020.35 | |
| *Quercus douglasii / Euphorbia spathulata - Pentagramma triangularis* | | | 71.020.36 | |
| *Quercus douglasii / Galium andrewsii - Lupinus concinnus* | | | 71.020.37 | |
| *Quercus douglasii / grass* | | | 71.020.05 | |
| *Quercus douglasii / Hordeum leporinum - Viola pedunculata* | | | 71.020.38 | |
| *Quercus douglasii / Juniperus californica* | | | 71.020.26 | |
| Juniper Oak Cismontane Woodland | | G3 S3.2 | | *CTT71430CA |
| *Quercus douglasii / Juniperus californica - Ceanothus cuneatus* | | | 71.020.23 | |
| *Quercus douglasii / Juniperus californica - Quercus john-tuckeri* | | | 71.020.41 | |
| *Quercus douglasii / Lotus subpinnatus - Nassella pulchra* | | | 71.020.40 | |
| *Quercus douglasii / Lupinus concinnus - Trifolium ciliolatum* | | | 71.020.39 | |

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|---|---|---|---|---|
| *Quercus douglasii / Ribes californica / Bromus diandrus* | | | 71.020.15 | |
| *Quercus douglasii / Selaginella hansenii - Navarretia pubescens* | | | 71.020.21 | |
| *Quercus douglasii / Toxicodendron diversilobum / grass* | | | 71.020.45 | |
| *Quercus douglasii / understory oak* | | | 71.020.09 | |
| *Quercus engelmannii* (Engelmann oak woodland) Alliance | Engelmann oak woodland | G3 S3 | *71.070.00 | |
| Engelmann Oak Woodland | | G2 S2.1 | | *CTT71180CA |
| Open Engelmann Oak Woodland | | G2 S2.2 | | *CTT71181CA |
| Dense Engelmann Oak Woodland | | G2 S2.1 | | *CTT71182CA |
| *Quercus engelmannii / Adenostoma fasciculatum - Arctostaphylos glauca* | | | *71.070.05 | |
| *Quercus engelmannii / annual grass - herb* | | | *71.070.06 | |
| *Quercus engelmannii / Quercus berberidifolia* | | | *71.070.07 | |
| *Quercus engelmannii / Salvia apiana / grass - herb* | | | *71.070.08 | |
| *Quercus engelmannii / Toxicodendron diversilobum / grass* | | | *71.070.09 | |
| *Quercus kelloggii* (California black oak forest) Alliance | California black oak forest | G4 S4 (some associations are of high priority for | 71.010.00 | |
| Black Oak Forest | | G4 S4 | | CTT81340CA |
| Black Oak Woodland | | G3 S3.2 | | *CTT71120CA |
| *Quercus kelloggii - Calocedrus decurrens* | | | 71.010.21 | |
| *Quercus kelloggii - Pinus coulteri* | | | 71.010.32 | |
| *Quercus kelloggii - Pinus coulteri / Arctostaphylos glandulosa* | | | 71.010.33 | |
| *Quercus kelloggii - Pinus coulteri / Arctostaphylos pringlei* | | | 71.010.34 | |
| *Quercus kelloggii - Pinus ponderosa* | | | 71.010.26 | |
| Westside Ponderosa Pine Forest | | G3 S2.1 | | *CTT84210CA |
| *Quercus kelloggii - Pinus ponderosa / Arctostaphylos viscida* | | | 71.010.27 | |
| *Quercus kelloggii - Pinus ponderosa / Ceanothus integerrimus* | | | 71.010.28 | |
| *Quercus kelloggii - Pinus sabiniana / Styrax officinalis - Toxicodendron diversilobum* | | | 71.010.35 | |
| *Quercus kelloggii - Pseudotsuga menziesii* | | | *71.010.17 | |
| *Quercus kelloggii - Pseudotsuga menziesii - Acer macrophyllum* | | | 71.010.16 | |
| *Quercus kelloggii - Pseudotsuga menziesii - Umbellularia californica* | | | 71.010.29 | |
| *Quercus kelloggii - Quercus agrifolia - pine / Holodiscus discolor* | | | *71.010.02 | |
| *Quercus kelloggii - Quercus chrysolepis* | | | 71.010.12 | |
| *Quercus kelloggii - Quercus chrysolepis / Toxicodendron diversilobum* | | | 71.010.01 | |
| *Quercus kelloggii - Quercus chrysolepis / Toxicodendron diversilobum* | | | 71.010.23 | |
| *Quercus kelloggii - Quercus lobata / grass* | | | *71.010.11 | |
| *Quercus kelloggii / annual grass - herb* | | | 71.010.30 | |
| *Quercus kelloggii / Arctostaphylos mewukka / Chamaebatia foliosa* | | | 71.010.20 | |
| *Quercus kelloggii / Arctostaphylos patula* | | | 71.010.06 | |
| *Quercus kelloggii / Arctostaphylos viscida* | | | 71.010.24 | |
| *Quercus kelloggii / Ceanothus integerrimus* | | | 71.010.03 | |
| *Quercus kelloggii / Ceanothus integerrimus - Toxicodendron diversilobum / Pteridium aquilinum* | | | 71.010.04 | |
| *Quercus kelloggii / Heteromeles arbutifolia - Toxicodendron diversilobum* | | | 71.010.31 | |
| *Quercus kelloggii / Toxicodendron diversilobum* | | | 71.010.08 | |
| *Quercus kelloggii / Toxicodendron diversilobum - Styrax officinalis / Triteleia laxa* | | | 71.010.10 | |
| *Quercus kelloggii / Toxicodendron diversilobum / grass* | | | 71.010.25 | |
| *Quercus kelloggii/ Triteleia spp.* | | | 71.010.05 | |
| *Quercus lobata* (Valley oak woodland) Alliance | Valley oak woodland | G3 S3 (some associations are of high priority for | *71.040.00 | |
| Valley Oak Woodland | | G3 S2.1 | | *CTT71130CA |
| *Quercus lobata - Acer negundo* | | | *71.040.15 | |
| *Quercus lobata - Alnus rhombifolia* | | | *71.040.11 | |
| *Quercus lobata - Fraxinus latifolia / Vitis californica* | | | *71.040.16 | |
| *Quercus lobata - Quercus agrifolia / grass* | | | *71.040.06 | |
| *Quercus lobata - Quercus agrifolia / Toxicodendron diversilobum* | | | *71.040.17 | |
| *Quercus lobata - Quercus douglasii* | | | *71.040.18 | |
| *Quercus lobata - Quercus kelloggii* | | | *71.040.19 | |
| *Quercus lobata - Quercus wislizeni* | | | *71.040.12 | |
| *Quercus lobata - Salix lasiolepis* | | | *71.040.20 | |
| *Quercus lobata (Sacramento River)* | Sacramento River | | *71.040.14 | |
| Great Valley Valley Oak Riparian Forest | | G1 S1.1 | | *CTT61430CA |
| *Quercus lobata / grass* | | | *71.040.05 | |
| *Quercus lobata / herbaceous semi-riparian* | | | *71.040.13 | |
| *Quercus lobata / Rhus trilobata* | | | *71.040.09 | |
| *Quercus lobata / Rubus armeniacus* | | | *71.040.10 | |
| *Quercus palmeri* (Palmer oak chaparral) Alliance | Palmer oak chaparral | G3 S2? | *37.419.00 | |
| *Quercus palmeri - Eriogonum fasciculatum* | | | *37.419.01 | |
| *Quercus palmeri - Eriogonum wrightii* | | | *37.419.02 | |
| *Quercus parvula var. shrevei* (Shreve oak forests) Provisional Alliance | Shreve oak forests | G2 S2 | *71.085.00 | |
| *Quercus (agrifolia, douglasii, garryana, kelloggii, lobata, wislizeni)* (Mixed oak forest) Alliance | Mixed oak forest | G4 S4 | 71.100.00 | |
| *Mixed oak - Aesculus californica / grass* | | | 71.100.05 | |
| *Mixed oak - Pinus sabiniana / grass* | | | 71.100.07 | |
| *Mixed oak - Quercus agrifolia / Toxicodendron diversilobum* | | | 71.100.06 | |
| *Mixed oak - Quercus kelloggii / grass* | | | 71.100.04 | |

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| *Mixed oak / Baccharis pilularis - Toxicodendron diversilobum* | | | 71.100.10 | |
| *Mixed oak / grass* | | | 71.100.08 | |
| *Quercus douglasii - Quercus lobata - Quercus agrifolia / Toxicodendron diversilobum* | | | 71.100.14 | |
| *Quercus tomentella* (Island oak groves) Special Stands | Island oak groves | G3 S3 | *71.090.00 | |
| Island Oak Woodland | | G2 S2.1 | | *CTT71190CA |
| *Quercus wislizeni* (Interior live oak woodland) Alliance | Interior live oak woodland | G4 S4 | 71.080.00 | |
| Interior Live Oak Forest | | G4 S4 | | CTT81330CA |
| Interior Live Oak Woodland | | G3 S3.2 | | *CTT71150CA |
| *Quercus wislizeni - Aesculus californica* | | | 71.080.14 | |
| *Quercus wislizeni - Aesculus californica / Toxicodendron diversilobum* | | | 71.080.37 | |
| *Quercus wislizeni - Arbutus menziesii / Toxicodendron diversilobum* | | | 71.080.03 | |
| *Quercus wislizeni - Pinus ponderosa* | | | 71.080.15 | |
| *Quercus wislizeni - Pinus sabiniana / annual grass - herb* | | | 71.080.42 | |
| *Quercus wislizeni - Pinus sabiniana / Arctostaphylos manzanita* | | | 71.080.02 | |
| *Quercus wislizeni - Pinus sabiniana / Arctostaphylos viscida* | | | 71.080.08 | |
| *Quercus wislizeni - Quercus chrysolepis - Pinus coulteri* | | | 71.080.39 | |
| *Quercus wislizeni - Quercus chrysolepis tree* | | | 71.080.38 | |
| *Quercus wislizeni - Quercus douglasii - Aesculus californica* | | | 71.080.43 | |
| *Quercus wislizeni - Quercus douglasii - Pinus sabiniana / (grass)* | | | 71.080.01 | |
| *Quercus wislizeni - Quercus douglasii - Pinus sabiniana / Toxicodendron diversilobum* | | | 71.080.41 | |
| *Quercus wislizeni - Quercus douglasii / herbaceous* | | | 71.080.44 | |
| *Quercus wislizeni - Quercus douglasii / Toxicodendron diversilobum* | | | 71.080.46 | |
| *Quercus wislizeni - Quercus kelloggii* | | | 71.080.45 | |
| *Quercus wislizeni - Quercus kelloggii / Heteromeles arbutifolia - Toxicodendron diversilobum* | | | 71.080.47 | |
| *Quercus wislizeni - Salix laevigata / Frangula californica* | | | 71.080.13 | |
| *Quercus wislizeni / Arctostaphylos viscida* | | | 71.080.04 | |
| *Quercus wislizeni / Eriodictyon californicum* | | | 71.080.05 | |
| *Quercus wislizeni / Heteromeles arbutifolia* | | | 71.080.40 | |
| *Quercus wislizeni / Toxicodendron diversilobum* | | | 71.080.48 | |
| *Quercus wislizeni / Toxicodendron diversilobum / Centaurea solstitialis* | | | 71.080.16 | |
| *Umbellularia californica* (California bay forest) Alliance | California bay forest | G4 S3 | *74.100.00 | |
| California Bay Forest | | G3 S3.2 | | *CTT81200CA |
| *Umbellularia californica* | | | *74.100.01 | |
| *Umbellularia californica - Acer macrophyllum* | | | *74.100.10 | |
| *Umbellularia californica - Aesculus californica / Holodiscus discolor* | | | *74.100.06 | |
| *Umbellularia californica - Alnus rhombifolia* | | | *74.100.16 | |
| *Umbellularia californica - Arbutus menziesii* | | | *74.100.03 | |
| *Umbellularia californica - Juglans californica / Ceanothus spinosus* | | | *74.100.11 | |
| *Umbellularia californica - Lithocarpus densiflorus* | | | *74.100.12 | |
| *Umbellularia californica - Platanus racemosa* | | | *74.100.13 | |
| *Umbellularia californica - Pseudotsuga menziesii / Rhododendron occidentale* | | | *74.100.17 | |
| *Umbellularia californica - Quercus agrifolia / (Genista monspessulana)* | | | *74.100.15 | |
| *Umbellularia californica - Quercus agrifolia / Heteromeles arbutifolia - Toxicodendron diversilobum / Melica torreyana* | | | *74.100.19 | |
| *Umbellularia californica - Quercus agrifolia / Toxicodendron diversilobum (Corylus cornuta)* | | | *74.100.05 | |
| *Umbellularia californica - Quercus chrysolepis* | | | *74.100.20 | |
| *Umbellularia californica - Quercus wislizeni* | | | *74.100.18 | |
| *Umbellularia californica / Ceanothus oliganthus* | | | *74.100.07 | |
| *Umbellularia californica / Polystichum munitum* | | | *74.100.08 | |
| *Umbellularia californica / Toxicodendron diversilobum* | | | *74.100.09 | |
| Northern Interior Cypress Forest | | G2 S2.2 | | *CTT83220CA |
| Southern Interior Cypress Forest | | G2 S2.1 | | *CTT83230CA |
| *Callitropsis abramsiana* (Santa Cruz cypress groves) Special Stands | Santa Cruz cypress groves | G1 S1 | *81.606.00 | |
| *Callitropsis bakeri* (Baker cypress stands) Alliance | Baker cypress stands | G2 S2 | *81.601.00 | |
| *Callitropsis bakeri / Arctostaphylos patula* | | | *81.601.01 | |
| *Callitropsis forbesii* (Tecate cypress stands) Alliance | Tecate cypress stands | G2 S2 | *81.607.00 | |
| *Callitropsis goveniana* (Monterey pygmy cypress stands) Special Stands | Monterey pygmy cypress stands | G1 S1 | *81.603.00 | |
| Monterey Pygmy Cypress Forest | | G1 S1.1 | | *CTT83162CA |
| *Callitropsis macnabiana* (McNab cypress woodland) Alliance | McNab cypress woodland | G3 S3 | *81.300.00 | |
| *Callitropsis macnabiana / Arctostaphylos viscida* | | | *81.300.02 | |
| *Callitropsis macrocarpa* (Monterey cypress stands) Special Stands | Monterey cypress stands | G1 S1 | *81.604.00 | |
| Monterey Cypress Forest | | G1 S1.2 | | *CTT83150CA |
| *Callitropsis nevadensis* | | | *81.605.01 | |
| *Callitropsis pigmaea* (Mendocino pygmy cypress woodland) Alliance | Mendocino pygmy cypress woodland | G2 S2 | *81.400.00 | |
| Mendocino Pygmy Cypress Forest | | G2 S2.1 | | *CTT83161CA |
| *Callitropsis pigmaea / Ramalina tharusta* | | | *81.400.03 | |
| *Callitropsis pigmaea / Usnea subfloridana* | | | *81.400.04 | |
| *Callitropsis pigmaea / Cladina impexa* | | | *81.400.02 | |
| *Callitropsis sargentii* (Sargent cypress woodland) Alliance | Sargent cypress woodland | G3 S3 | *81.500.00 | |
| *Callitropsis sargentii* | | | *81.500.01 | |
| *Callitropsis sargentii / Arctostaphylos montana* | | | *81.500.03 | |

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| *Callitropsis sargentii / riparian* | | | *81.500.02 | |
| *Callitropsis stephensonii* (Cuyamaca cypress stands) Special Stands | Cuyamaca cypress stands | G1 S1 | *81.610.00 | |
| *Juniperus californica* (California juniper woodland) Alliance | California juniper woodland | G4 S4 (some associations are of high priority for | 89.100.00 | |
| Peninsular Juniper Woodland and Scrub | | G3 S3.2 | | *CTT72320CA |
| Cismontane Juniper Woodland and Scrub | | G2 S2.1 | | *CTT72400CA |
| *Juniperus californica - (Yucca schidigera) / Pleuraphis rigida* | | | 89.100.08 | |
| *Juniperus californica - Adenostoma fasciculatum - Eriogonum fasciculatum* | | | *89.100.01 | |
| *Juniperus californica - Coleogyne ramosissima* | | | 89.100.04 | |
| *Juniperus californica - Coleogyne ramosissima - Yucca schidigera* | | | 89.100.06 | |
| *Juniperus californica - Ericameria linearifolia / annual - perennial - herb* | | | *89.100.02 | |
| *Juniperus californica - Eriogonum fasciculatum - Artemisia californica* | | | 89.100.12 | |
| *Juniperus californica - Fraxinus dipetala - Ericameria linearifolia* | | | 89.100.14 | |
| *Juniperus californica - Quercus cornelius - mulleri / Coleogyne ramosissima* | | | 89.100.05 | |
| *Juniperus californica - Yucca schidigera* | | | 89.100.18 | |
| *Juniperus californica / Agave deserti* | | | 89.100.03 | |
| *Juniperus californica / annual herbaceous* | | | 89.100.15 | |
| *Juniperus californica / Hesperostipa comata* | | | 89.100.17 | |
| *Juniperus californica / Nolina parryi* | | | 89.100.11 | |
| *Juniperus californica / Prunus ilicifolia / moss* | | | 89.100.16 | |
| *Pinus attenuata* (Knobcone pine forest) Alliance | Knobcone pine forest | G4 S4 | 87.100.00 | |
| Knobcone Pine Forest | | G4 S4 | | *CTT83210CA |
| *Pinus attenuata - mixed oak / Arctostaphylos viscida* | | | 87.100.08. | |
| *Pinus attenuata / Adenostoma fasciculatum* | | | 87.100.04 | |
| *Pinus attenuata / Arctostaphylos columbiana* | | | 87.100.01 | |
| *Pinus attenuata / Arctostaphylos glandulosa* | | | 87.100.06 | |
| *Pinus attenuata / Arctostaphylos patula* | | | 87.100.02 | |
| *Pinus attenuata / Arctostaphylos viscida* | | | 87.100.05 | |
| *Pinus attenuata / Ceanothus lemmonii* | | | 87.100.07 | |
| *Pinus attenuata / Quercus vacciniifolia* | | | 87.100.03 | |
| *Pinus coulteri* (Coulter pine woodland) Alliance | Coulter pine woodland | G4 S4 (some associations are of high priority for | 87.090.00 | |
| Coulter Pine Forest | | | | *CTT84140CA |
| *Pinus coulteri - Calocedrus decurrens - Pinus jeffreyi / Quercus durata* | | | *87.090.01 | |
| *Pinus coulteri - Calocedrus decurrens / Frangula californica spp. tomentella / Aquilegia eximia* | | | *87.092.03 | |
| *Pinus coulteri - Calocedrus decurrens / Quercus durata - Arctostaphylos glauca* | | | *87.090.02 | |
| *Pinus coulteri - Pinus sabiniana / Quercus durata - Arctostaphylos pungens* | | | *87.090.03 | |
| *Pinus coulteri - Quercus chrysolepis* | | | 87.090.04 | |
| *Pinus coulteri - Quercus chrysolepis / Arctostaphylos pringlei* | | | *87.090.06 | |
| *Pinus coulteri - Quercus kelloggii* | | | 87.092.08 | |
| *Pinus coulteri - Quercus wislizeni* | | | 87.092.05 | |
| *Pinus coulteri / Arctostaphylos glandulosa* | | | 87.092.07 | |
| *Pinus coulteri / Arctostaphylos glandulosa - Quercus wislizeni* | | | 87.092.01 | |
| *Pinus coulteri / Arctostaphylos glauca* | | | 87.092.02 | |
| *Pinus coulteri / Quercus durata* | | | *87.092.04 | |
| *Pinus muricata* (Bishop pine forest) Alliance | Bishop pine forest | G3 S3 | *87.070.00 | |
| Northern Bishop Pine Forest | | G2 S2.2 | | *CTT83121CA |
| Southern Bishop Pine Forest | | G1 S1.1 | | *CTT83122CA |
| *Pinus muricata - (Arbutus menziesii) / Vaccinium ovatum* | | | *87.070.01 | |
| *Pinus muricata - Callitropsis pigmaea* | | | *87.070.10 | |
| *Pinus muricata - Pinus contorta ssp. bolanderi* | | | *87.070.02 | |
| *Pinus muricata - Pinus contorta ssp. bolanderi / Arnica discoidea* | | | *87.070.03 | |
| *Pinus muricata - Pseudotsuga menziesii* | | | *87.070.04 | |
| *Pinus muricata / Arctostaphylos glandulosa* | | | *87.070.07 | |
| *Pinus muricata / Xerophyllum tenax* | | | *87.070.09 | |
| *Pinus quadrifolia* (Parry pinyon woodland) Alliance | Parry pinyon woodland | G3 S2 | *87.030.00 | |
| *Pinus quadrifolia / Quercus cornelius - mulleri* | | | *87.030.01 | |
| *Pinus radiata* (Monterey pine forest) Alliance | Monterey pine forest | G1 S1 | *87.110.00 | |
| Monterey Pine Forest | | G1 S1.1 | | *CTT83130CA |
| *Pinus radiata - Pinus muricata / Arctostaphylos tomentosa - Arctostaphylos hookeri* | | | *87.110.03 | |
| *Pinus radiata - Quercus agrifolia / Toxicodendron diversilobum* | | | *87.110.04 | |
| *Pinus radiata / Arctostaphylos tomentosa - Vaccinium ovatum* | | | *87.110.01 | |
| *Pinus radiata / Toxicodendron diversilobum* | | | *87.110.02 | |
| *Pinus sabiniana* (Ghost pine woodland) Alliance | Ghost pine woodland | G4 S4 | 87.130.00 | |
| Open Digger Pine Woodland | | G4 S4 | | CTT71310CA |
| *Pinus sabiniana - Juniperus californica / grass* | | | 87.130.02 | |
| *Pinus sabiniana - Quercus chrysolepis / Arctostaphylos viscida* | | | 87.130.12 | |
| *Pinus sabiniana - Quercus wislizeni / Adenostoma fasciculatum* | | | 87.130.11 | |
| *Pinus sabiniana - Quercus wislizeni / Ceanothus cuneatus* | | | 87.130.04 | |
| *Pinus sabiniana / Adenostoma fasciculatum* | | | 87.130.07 | |
| *Pinus sabiniana / Arctostaphylos viscida* | | | 87.130.08 | |
| *Pinus sabiniana / Artemisia californica - Ceanothus ferrisiae - Heteromeles arbutifolia* | | | 87.130.06 | |

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| *Pinus sabiniana / Ceanothus cuneatus - Heteromeles arbutifolia* | | | 87.130.09 | |
| *Pinus sabiniana / Ceanothus cuneatus - Rhamnus illicifolia* | | | 87.130.10 | |
| *Pinus sabiniana / Ceanothus cuneatus / Plantago erecta* | | | 87.130.03 | |
| *Pinus sabiniana / Frangula californica ssp. tomentella* | | | 87.130.13 | |
| *Pinus torreyana* (Torrey pine stands) Special Stands | Torrey pine stands | G1 S1 | *87.190.00 | |
| Torrey Pine Forest | | G1 S1.1 | | *CTT83140CA |
| *Pinus torreyana / Artemisia californica - Rhus integrifolia* | | | *87.190.01 | |
| Mixed Evergreen Forest | | G4 S4 | | CTT81100CA |
| *Arbutus menziesii* (Madrone forest) Alliance | Madrone forest | G4 S3 | *73.200.00 | |
| *Arbutus menziesii - Quercus agrifolia* | | | *73.200.03 | |
| *Arbutus menziesii - Umbellularia californica - (Lithocarpus densiflorus)* | | | *73.200.01 | |
| *Arbutus menziesii - Umbellularia californica - Quercus kelloggii* | | | *73.200.02 | |
| *Chrysolepis chrysophylla* (Golden chinquapin thickets) Alliance | Golden chinquapin thickets | G2 S2 | *37.417.00 | |
| *Chrysolepis chrysophylla - Arctostaphylos glandulosa* | | | *37.417.02 | |
| *Chrysolepis chrysophylla / Vaccinium ovatum* | | | *37.417.01 | |
| *Lithocarpus densiflorus* (Tanoak forest) Alliance | Tanoak forest | G4 S3 | *73.100.00 | |
| Tan Oak Forest | | G4 S4 | | CTT81400CA |
| *Lithocarpus densiflorus - Acer circinatum* | | | *73.100.10 | |
| *Lithocarpus densiflorus - Acer macrophyllum* | | | *73.100.11 | |
| *Lithocarpus densiflorus - Arbutus menziesii* | | | *73.100.03 | |
| *Lithocarpus densiflorus - Calocedrus decurrens / Festuca californica* | | | *73.100.12 | |
| *Lithocarpus densiflorus - Chamaecyparis lawsoniana* | | | *73.100.13 | |
| *Lithocarpus densiflorus - Chrysolepis chrysophylla* | | | *73.100.14 | |
| *Lithocarpus densiflorus - Cornus nuttallii* | | | *73.100.15 | |
| *Lithocarpus densiflorus - Cornus nuttallii / Toxicodendron diversilobum* | | | *73.100.16 | |
| *Lithocarpus densiflorus - Pinus lambertiana / Toxicodendron diversilobum* | | | *73.100.01 | |
| *Lithocarpus densiflorus - Quercus chrysolepis* | | | *73.100.17 | |
| *Lithocarpus densiflorus - Quercus kelloggii* | | | *73.100.18 | |
| *Lithocarpus densiflorus - Umbellularia californica* | | | *73.100.19 | |
| *Lithocarpus densiflorus / Corylus cornuta* | | | *73.100.04 | |
| *Lithocarpus densiflorus / Frangula californica* | | | *73.100.02 | |
| *Lithocarpus densiflorus / Gaultheria shallon* | | | *73.100.05 | |
| *Lithocarpus densiflorus / Mahonia nervosa* | | | *73.100.06 | |
| *Lithocarpus densiflorus / Quercus vacciniifolia - Rhododendron macrophyllum* | | | *73.100.07 | |
| *Lithocarpus densiflorus / Toxicodendron diversilobum - Lonicera hispidula var. vacillens* | | | *73.100.08 | |
| *Lithocarpus densiflorus / Vaccinium ovatum* | | | *73.100.09 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus* (Douglas fir - tanoak forest) Alliance | Douglas fir - tanoak forest | G4 S4 | 82.500.00 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus* | | | 82.500.48 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus - (Acer macrophyllum) / Polystichum munitum* | | | 82.500.02 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus - (Acer macrophyllum) / Polystichum munitum* | | | 82.500.50 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus - (Calocedrus decurrens) / Festuca californica* | | | 82.500.22 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus - (Chamaecyparis lawsoniana - Alnus rubra) / riparian* | | | 82.500.31 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus - (Chamaecyparis lawsoniana - Umbellularia californica) / Vaccinium ovatum* | | | 82.500.24 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus - (Chamaecyparis lawsoniana) / Mahonia nervosa / Linnaea borealis* | | | 82.500.25 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus - (Chamaecyparis lawsoniana) / Acer circinatum* | | | 82.500.30 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus - (Chamaecyparis lawsoniana) / Gaultheria shallon* | | | 82.500.29 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus - (Chamaecyparis lawsoniana) / Vaccinium ovatum* | | | 82.500.26 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus - (Chamaecyparis lawsoniana) / Vaccinium ovatum - Rhododendron occidentalis* | | | 82.500.27 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus - (Chamaecyparis lawsoniana) / Vaccinium parvifolium* | | | 82.500.28 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus - (Chrysolepis chrysophylla) / Gaultheria shallon* | | | 82.500.16 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus - (Chrysolepis chrysophylla) / Pteridium aquilinum* | | | 82.500.12 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus - (Chrysolepis chrysophylla) / Rhododendron macrophyllum - Gaultheria shallon* | | | 82.500.15 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus - (Pinus lambertiana)* | | | 82.500.39 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus - (Quercus chrysolepis) / Mahonia nervosa* | | | 82.500.13 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus - (Quercus chrysolepis) / Mahonia nervosa - Gaultheria shallon* | | | 82.500.06 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus - (Quercus chrysolepis) / rockpile* | | | 82.500.11 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus - (Quercus chrysolepis) / Toxicodendron diversilobum* | | | 82.500.10 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus - (Quercus chrysolepis) / Vaccinium ovatum* | | | 82.500.08 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus - (Quercus chrysolepis, Quercus kelloggii) / Toxicodendron diversilobum* | | | 82.500.05 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus - (Quercus kelloggii) / Rosa gymnocarpa* | | | 82.500.03 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus - (Umbellularia californica) / Toxicodendron diversilobum* | | | 82.500.04 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus / Iris* | | | 82.500.44 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus - Thuja plicata / Vaccinium ovatum - Gaultheria shallon* | | | 82.500.51 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus / Acer circinatum* | | | 82.500.36 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus / Achlys triphylla* | | | 82.500.40 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus / Chimaphila umbellata* | | | 82.500.01 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus / Cornus nuttallii* | | | 82.500.43 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus / Corylus cornuta* | | | 82.500.21 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus / Gaultheria shallon* | | | 82.500.35 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus / Mahonia nervosa* | | | 82.500.07 | |

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| *Pseudotsuga menziesii - Lithocarpus densiflorus / Quercus vacciniifolia - Holodiscus discolor* | | | 82.500.46 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus / Rhododendron macrophyllum* | | | 82.500.49 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus / Taxus brevifolia* | | | 82.500.38 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus / Toxicodendron diversilobum - (Lonicera hispidula)* | | | 82.500.23 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus / Vaccinium ovatum - (Gaultheria shallon)* | | | 82.500.19 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus / Vaccinium ovatum - (Gaultheria shallon)* | | | 82.500.20 | |
| *Pseudotsuga menziesii - Lithocarpus densiflorus / Whipplea modesta* | | | 82.500.47 | |
| *Quercus garryana* (Oregon white oak woodland) Alliance | Oregon white oak woodland | G4 S3 | *71.030.00 | |
| Oregon Oak Woodland | | G3 S3.3 | | *CTT71110CA |
| *Quercus garryana - Pseudotsuga menziesii / Festuca californica* | | | *71.030.03 | |
| *Quercus garryana - Quercus kelloggii / Arrhenatherum elatius* | | | *71.030.01 | |
| *Quercus garryana - Quercus kelloggii / Dichelostemma ida-maia* | | | *71.030.15 | |
| *Quercus garryana - Quercus kelloggii / Toxicodendron diversilobum* | | | *71.030.14 | |
| *Quercus garryana var. garryana - Quercus garryana var. breweri / Festuca californica* | | | *71.030.02 | |
| *Quercus garryana / Bromus carinatus* | | | *71.030.11 | |
| *Quercus garryana / Cynosurus cristatus* | | | *71.030.06 | |
| *Quercus garryana / Dactylis glomerata* | | | *71.030.10 | |
| *Quercus garryana / Delphinium trolliifolium* | | | *71.030.09 | |
| *Quercus garryana / Melica subulata* | | | *71.030.13 | |
| *Quercus garryana / Philadelphus lewisii* | | | *71.030.08 | |
| *Quercus garryana / Ribes roezlii* | | | *71.030.07 | |
| *Quercus garryana / Symphoricarpos albus* | | | *71.030.05 | |
| *Quercus garryana / Toxicodendron diversilobum* | | | *71.030.04 | |
| *Abies concolor - Pseudotsuga menziesii* (White fir - Douglas fir forest) Alliance | White fir - Douglas fir forest | G5 S4 (some associations are of high priority for | 88.530.00 | |
| *Abies concolor - Pseudotsuga menziesii - (mixed conifer) / Acer circinatum - Chrysolepis sempervirens* | | | 88.530.34 | |
| *Abies concolor - Pseudotsuga menziesii - (Quercus chrysolepis)* | | | *88.530.06 | |
| *Abies concolor - Pseudotsuga menziesii - Calocedrus decurrens* | | | 88.530.30 | |
| *Abies concolor - Pseudotsuga menziesii / Amelanchier utahensis* | | | 88.530.35 | |
| *Abies concolor - Pseudotsuga menziesii / Arnica cordifolia* | | | 88.530.14 | |
| *Abies concolor - Pseudotsuga menziesii / Cornus nuttallii* | | | 88.530.36 | |
| *Abies concolor - Pseudotsuga menziesii / Cornus nuttallii / Corylus cornuta* | | | 88.530.37 | |
| *Abies concolor - Pseudotsuga menziesii / Corylus cornuta* | | | *88.530.15 | |
| *Abies concolor - Pseudotsuga menziesii / Corylus cornuta / Adenocaulon bicolor* | | | 88.530.32 | |
| *Abies concolor - Pseudotsuga menziesii / Melica subulata* | | | 88.530.16 | |
| *Abies concolor - Pseudotsuga menziesii / Pteridium aquilinum* | | | 88.530.29 | |
| *Abies concolor - Pseudotsuga menziesii / Quercus sadleriana* | | | 88.530.17 | |
| *Abies concolor - Pseudotsuga menziesii / Quercus sadleriana - Arctostaphylos nevadensis* | | | 88.530.18 | |
| *Abies concolor - Pseudotsuga menziesii / Quercus sadleriana - Quercus vacciniifolia* | | | 88.530.19 | |
| *Abies concolor - Pseudotsuga menziesii / Quercus sadleriana - Rhododendron macrophyllum* | | | 88.530.38 | |
| *Abies concolor - Pseudotsuga menziesii / Quercus vacciniifolia* | | | 88.530.20 | |
| *Abies concolor - Pseudotsuga menziesii / Rhododendron macrophyllum - Quercus sadleriana* | | | *88.530.21 | |
| *Abies concolor - Pseudotsuga menziesii / Rosa gymnocarpa - Linnaea borealis - Symphoricarpos mollis* | | | 88.530.23 | |
| *Abies concolor - Pseudotsuga menziesii / Rosa gymnocarpa - Symphoricarpos mollis* | | | 88.530.24 | |
| *Abies concolor - Pseudotsuga menziesii / Rosa gymnocarpa / Linnaea borealis* | | | *88.530.25 | |
| *Abies concolor - Pseudotsuga menziesii / Rubus ameniacus* | | | 88.530.31 | |
| *Abies concolor - Pseudotsuga menziesii / Rubus parviflorus* | | | *88.530.26 | |
| *Abies concolor - Pseudotsuga menziesii / Trientalis latifolia* | | | 88.530.33 | |
| *Abies concolor - Pseudotsuga menziesii / Xerophyllum tenax* | | | 88.530.28 | |
| *Acer macrophyllum* (Bigleaf maple forest) Alliance | Bigleaf maple forest | G4 S3 | *61.450.00 | |
| *Acer macrophyllum* | | | *61.450.01 | |
| *Acer macrophyllum - Pseudotsuga menziesii / Adenocaulon bicolor* | | | *61.450.02 | |
| *Acer macrophyllum - Pseudotsuga menziesii / Corylus cornuta* | | | *61.450.04 | |
| *Acer macrophyllum - Pseudotsuga menziesii / Dryopteris arguta* | | | *61.450.03 | |
| *Acer macrophyllum - Pseudotsuga menziesii / Philadelphus lewisii* | | | *61.450.05 | |
| *Acer macrophyllum - Pseudotsuga menziesii / Polystichum munitum* | | | *61.450.06 | |
| *Alnus rubra* (Red alder forest) Alliance | Red alder forest | G5 S4 (some associations are of high priority for | 61.410.00 | |
| Red Alder Forest | | G4 S3.2 | | CTT81A00CA |
| *Alnus rubra - Pseudotsuga menziesii / Acer circinatum / Claytonia siberica* | | | 61.410.08 | |
| *Alnus rubra - Pseudotsuga menziesii / Acer circinatum / Claytonia sibirica* | | | *61.410.01 | |
| *Alnus rubra / Gaultheria shallon* | | | *61.410.02 | |
| *Alnus rubra / Rubus spectabilis* | | | 61.410.07 | |
| Red Alder Riparian Forest | | G3 S2.2 | | *CTT61130CA |
| *Alnus rubra / Rubus spectabilis - Sambucus racemosa* | | | *61.410.06 | |
| *Pseudotsuga menziesii* (Douglas fir forest) Alliance | Douglas fir forest | G5 S4 (some associations are of high priority for | 82.200.00 | |
| Upland Douglas Fir Forest | | G4 S3.1 | | *CTT82420CA |
| *Pseudotsuga menziesii* | | | 82.200.77 | |
| *Pseudotsuga menziesii - Chrysolepis chrysophylla - Lithocarpus densiflorus* | | | *82.200.12 | |
| *Pseudotsuga menziesii - Chrysolepis chrysophylla - Lithocarpus densiflorus / Mahonia nervosa* | | | *82.200.13 | |
| *Pseudotsuga menziesii - Chrysolepis chrysophylla / Rhododendron macrophyllum - Gaultheria shallon* | | | 82.200.79 | |
| *Pseudotsuga menziesii - Chrysolepis chrysophylla / Rhododendron macrophyllum - Mahonia nervosa* | | | *82.200.10 | |

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| *Pseudotsuga menziesii - Chrysolepis chrysophylla / Rhododendron macrophyllum - Quercus sadleriana - Xerophyllum tenax* | | | *82.200.11 | |
| *Pseudotsuga menziesii - Chrysolepis chrysophylla / Xerophyllum tenax* | | | *82.200.09 | |
| *Pseudotsuga menziesii - Quercus agrifolia* | | | 82.200.71 | |
| *Pseudotsuga menziesii - Quercus chrysolepis* | | | *82.300.03 | |
| *Pseudotsuga menziesii - Quercus chrysolepis - Acer macrophyllum / Toxicodendron diversilobum* | | | 82.300.07 | |
| *Pseudotsuga menziesii - Quercus chrysolepis - Arbutus menziesii / Toxicodendron diversilobum* | | | *82.300.02 | |
| *Pseudotsuga menziesii - Quercus chrysolepis - Lithocarpus densiflorus* | | | *82.300.05 | |
| *Pseudotsuga menziesii - Quercus chrysolepis - mixed conifer / Polystichum munitum* | | | *82.300.01 | |
| *Pseudotsuga menziesii - Quercus chrysolepis / Arctostaphylos manzanita* | | | 82.300.06 | |
| *Pseudotsuga menziesii - Quercus garryana var. garryana / grass* | | | *82.200.19 | |
| *Pseudotsuga menziesii - Quercus kelloggii* | | | *82.200.60 | |
| *Pseudotsuga menziesii - Quercus kelloggii* | | | 82.200.80 | |
| *Pseudotsuga menziesii - Umbellularia californica* | | | *82.200.66 | |
| *Pseudotsuga menziesii - Umbellularia californica / Frangula californica* | | | 82.200.70 | |
| *Pseudotsuga menziesii - Umbellularia californica / Holodiscus discolor* | | | 82.200.81 | |
| *Pseudotsuga menziesii - Umbellularia californica / Polystichum munitum* | | | 82.200.69 | |
| *Pseudotsuga menziesii - Umbellularia californica / Toxicodendron diversilobum* | | | *82.200.05 | |
| *Pseudotsuga menziesii / Acer circinatum - Mahonia nervosa* | | | *82.200.20 | |
| *Pseudotsuga menziesii / Achlys triphylla* | | | *82.200.49 | |
| *Pseudotsuga menziesii / Arbutus menziesii* | | | *82.200.50 | |
| *Pseudotsuga menziesii / Arctostaphylos patula* | | | 82.200.53 | |
| *Pseudotsuga menziesii / Baccharis pilularis* | | | 82.200.72 | |
| *Pseudotsuga menziesii / Chimaphila umbellata* | | | *82.200.54 | |
| *Pseudotsuga menziesii / Corylus cornuta* | | | *82.200.56 | |
| *Pseudotsuga menziesii / Corylus cornuta / Adenocaulon bicolor* | | | *82.200.04 | |
| *Pseudotsuga menziesii / Gaultheria shallon* | | | *82.200.59 | |
| *Pseudotsuga menziesii / Linnaea borealis* | | | *82.200.55 | |
| *Pseudotsuga menziesii / Lithocarpus densiflorus var. echinoides / Iris douglasii* | | | 82.200.78 | |
| *Pseudotsuga menziesii / Mahonia nervosa* | | | *82.200.64 | |
| *Pseudotsuga menziesii / Quercus vacciniifolia* | | | *82.200.15 | |
| *Pseudotsuga menziesii / Quercus vacciniifolia - Lithocarpus densiflorus var. echinoides* | | | *82.200.16 | |
| *Pseudotsuga menziesii / Quercus vacciniifolia - Rhododendron macrophyllum* | | | *82.200.74 | |
| *Pseudotsuga menziesii / Rhododendron spp.* | | | *82.200.58 | |
| *Pseudotsuga menziesii / Vancouveria planipetala* | | | *82.200.57 | |
| *Pinus ponderosa - Pseudotsuga menziesii* (Ponderosa pine - Douglas fir forest) Alliance | Ponderosa pine - Douglas fir forest | G4 S4 (some associations are of high priority for | 82.400.00 | |
| Coast Range Mixed Coniferous Forest | | G4 S4 | | CTT84110CA |
| *Pinus ponderosa - Pseudotsuga menziesii - Lithocarpus densiflorus / Chamaebatia foliolosa* | | | 82.400.08 | |
| *Pinus ponderosa - Pseudotsuga menziesii - Quercus chrysolepis / Galium bolanderi* | | | 82.400.09 | |
| *Pinus ponderosa - Pseudotsuga menziesii / Antennaria rosea - Eriogonum nudum* | | | 82.400.07 | |
| *Pinus ponderosa - Pseudotsuga menziesii / Purshia tridentata var. tridentata / Wyethia mollis* | | | 82.400.06 | |
| *Pseudotsuga menziesii - Pinus ponderosa* | | | *82.400.04 | |
| *Pseudotsuga menziesii - Pinus ponderosa - Calocedrus decurrens* | | | *82.400.02 | |
| *Pseudotsuga menziesii - Pinus ponderosa - Pinus jeffreyi / Poa secunda* | | | *82.400.03 | |
| *Pseudotsuga menziesii - Calocedrus decurrens* (Douglas fir - Incense cedar forest) Alliance | Douglas fir - Incense cedar forest | G3 S3 | *82.600.00 | |
| Ultramafic Mixed Coniferous Forest | | G4 S4 | | CTT84180CA |
| *Pseudotsuga menziesii - Calocedrus decurrens - (Pinus jeffreyi) / Nassella pulchra* | | | *82.600.15 | |
| *Pseudotsuga menziesii - Calocedrus decurrens - (Quercus kellogii) / Nassella pulchra* | | | *82.600.14 | |
| *Pseudotsuga menziesii - Calocedrus decurrens - Pinus jeffreyi* | | | *82.600.12 | |
| *Pseudotsuga menziesii - Calocedrus decurrens - Pinus jeffreyi / Festuca californica* | | | *82.600.13 | |
| *Pseudotsuga menziesii - Calocedrus decurrens - Umbellularia californica / Toxicodendron diversilobum* | | | *82.600.01 | |
| *Pseudotsuga menziesii - Calocedrus decurrens / Festuca californica* | | | *82.600.02 | |
| *Pseudotsuga menziesii - Calocedrus decurrens / Quercus vacciniifolia* | | | *82.600.04 | |
| *Abies bracteata* (Santa Lucia fir groves) Alliance | Santa Lucia fir groves | G3 S3 | *88.300.00 | |
| Santa Lucia Fir Forest | | G2 S2.2 | | *CTT84120CA |
| *Abies bracteata / Galium clementis* | | | *88.300.01 | |
| *Abies bracteata / Polystichum munitum* | | | *88.300.02 | |
| *Abies concolor* (White fir forest) Alliance | White fir forest | G5 S4 (some associations are of high priority for | 88.500.00 | |
| Southern California White Fir Forest | | G4 S4 | | CTT85320CA |
| Desert Mountain White Fir Forest | | G4 S1.2 | | *CTT85330CA |
| *Abies concolor - Calocedrus decurrens - Pinus jeffreyi* | | | 88.500.40 | |
| *Abies concolor - Calocedrus decurrens - Pseudotsuga macrocarpa - Pinus coulteri* | | | 88.510.10 | |
| *Abies concolor - Calocedrus decurrens - Quercus kelloggii* | | | 88.500.29 | |
| *Abies concolor - Calocedrus decurrens / Pyrola picta* | | | 88.500.31 | |
| *Abies concolor - Calocedrus decurrens / Symphoricarpos mollis* | | | 88.500.30 | |
| *Abies concolor - Chrysolepis chrysophylla* | | | *88.500.37 | |
| *Abies concolor / (Rosa gymnocarpa) - Symphoricarpos mollis* | | | 88.500.35 | |
| *Abies concolor / Acer glabrum* | | | 88.500.60 | |
| *Abies concolor / Achlys triphylla* | | | 88.500.12 | |
| *Abies concolor / Amelanchier alnifolia* | | | 88.500.33 | |
| *Abies concolor / Arctostaphylos nevadensis* | | | 88.500.10 | |

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| *Abies concolor / Arnica cordifolia* | | | 88.500.17 | |
| *Abies concolor / Chimaphila menziesii - Pyrola picta* | | | 88.500.32 | |
| *Abies concolor / Chimaphila umbellata* | | | 88.500.11 | |
| *Abies concolor / Goodyera oblongifolia* | | | 88.500.59 | |
| *Abies concolor / Mahonia nervosa* | | | 88.500.54 | |
| *Abies concolor / Prunus emarginata* | | | 88.500.58 | |
| *Abies concolor / Pseudostellaria jamesiana* | | | 88.500.61 | |
| *Abies concolor / Trillium ovatum* | | | 88.500.57 | |
| *Abies concolor / Vicia americana* | | | 88.500.53 | |
| *Abies concolor - Pinus lambertiana* (White fir-sugar pine forest) Alliance | White fir-sugar pine forest | G4 S4 | 88.510.00 | |
| Sierran Mixed Coniferous Forest | | G4 S4 | | CTT84230CA |
| Sierran White Fir Forest | | G4 S4 | | CTT84240CA |
| *Abies concolor - Pinus lambertiana* | | | 88.510.01 | |
| *Abies concolor - Pinus lambertiana - Calocedrus decurrens - Quercus chrysolepis* | | | 88.510.09 | |
| *Abies concolor - Pinus lambertiana - Calocedrus decurrens / Adenocaulon bicolor* | | | 88.510.06 | |
| *Abies concolor - Pinus lambertiana - Calocedrus decurrens / Chrysolepis sempervirens* | | | 88.510.07 | |
| *Abies concolor - Pinus lambertiana - Calocedrus decurrens / Cornus nuttallii / Corylus cornuta* | | | 88.510.05 | |
| *Abies concolor - Pinus lambertiana - Calocedrus decurrens / Symphoricarpos mollis / Kelloggia galioides* | | | 88.510.08 | |
| *Abies concolor - Pinus lambertiana - Pinus jeffreyi* | | | 88.510.04 | |
| *Abies concolor - Pinus lambertiana - Pinus ponderosa / Lithocarpus densiflorus var. echinoides* | | | 88.510.17 | |
| *Abies concolor - Pinus lambertiana - Pseudotsuga menziesii / Carex rossii* | | | 88.510.14 | |
| *Abies concolor - Pinus lambertiana / Ceanothus cordulatus* | | | 88.510.13 | |
| *Abies concolor - Pinus lambertiana / Maianthemum racemosa - Prosartes hookeri* | | | 88.510.03 | |
| *Abies concolor - Pinus ponderosa / Lithocarpus densiflorus var. echinoides* | | | 88.510.16 | |
| *Pinus ponderosa - Pinus lambertiana / Lithocarpus densiflorus var. echinoides* | | | 88.510.15 | |
| *Abies magnifica - Abies concolor* (Red fir - white fir forest) Alliance | Red fir - white fir forest | G5 S4 | 88.520.00 | |
| *Abies magnifica - Abies concolor* | | | 88.520.01 | |
| *Abies magnifica - Abies concolor - Pinus jeffreyi* | | | 88.520.09 | |
| *Abies magnifica - Abies concolor / Acer glabrum* | | | 88.520.11 | |
| *Abies magnifica - Abies concolor / Achlys triphylla* | | | 88.520.08 | |
| *Abies magnifica - Abies concolor / Anemone deltoidea* | | | 88.520.16 | |
| *Abies magnifica - Abies concolor / Arctostaphylos nevadensis* | | | 88.520.07 | |
| *Abies magnifica - Abies concolor / Arctostaphylos nevadensis* | | | 88.520.12 | |
| *Abies magnifica - Abies concolor / Arnica cordifolia* | | | 88.520.03 | |
| *Abies magnifica - Abies concolor / Penstemon anguineus - Monardella odoratissima* | | | 88.520.13 | |
| *Abies magnifica - Abies concolor / Pinus lambertiana* | | | 88.520.10 | |
| *Abies magnifica - Abies concolor / Pteridium aquilinum* | | | 88.520.02 | |
| *Abies magnifica - Abies concolor / Pyrola picta* | | | 88.520.15 | |
| *Abies magnifica - Abies concolor / Quercus sadleriana* | | | 88.520.06 | |
| *Abies magnifica - Abies concolor / Quercus sadleriana* | | | 88.520.14 | |
| *Abies magnifica - Abies concolor / Symphoricarpos mollis - Rosa gymnocarpa* | | | 88.520.05 | |
| *Abies magnifica - Abies concolor / Symphoricarpos mollis / Pyrola picta* | | | 88.520.04 | |
| *Calocedrus decurrens* (Incense cedar forest) Alliance | Incense cedar forest | G4 S3 | *85.100.00 | |
| *Calocedrus decurrens - Abies concolor / Senecio triangularis* | | | *85.100.05 | |
| *Calocedrus decurrens - Alnus rhombifolia* | | | *85.100.03 | |
| *Calocedrus decurrens - Quercus chrysolepis - Quercus kelloggii* | | | *85.100.04 | |
| *Calocedrus decurrens / Listera convallarioides* | | | *85.100.01 | |
| *Picea breweriana* (Brewer spruce forest) Alliance | Brewer spruce forest | G3 S2 | *83.300.00 | |
| Siskiyou Enriched Coniferous Forest | | G1 S1.2 | | *CTT85410CA |
| Salmon Scott Enriched Coniferous Forest | | G1 S1.2 | | *CTT85420CA |
| *Pinus jeffreyi* (Jeffrey pine forest) Alliance | Jeffrey pine forest | 87.020.00 | Jeffrey pine forest | |
| Jeffrey Pine Forest | | G4 S4 | | CTT85100CA |
| Jeffrey Pine Fir Forest | | G4 S4 | | CTT85210CA |
| Northern Ultramafic Jeffrey Pine Forest | | G3 S3.2 | | *CTT84171CA |
| Southern Ultramafic Jeffrey Pine Forest | | G2 S2.1 | | *CTT84172CA |
| Southern Ultramafic Mixed ConiferousForest | | G2 S2.1 | | *CTT84182CA |
| *Pinus jeffreyi - Abies concolor - Abies magnifica* | | | 87.205.03 | |
| *Pinus jeffreyi - Abies concolor / Chrysolepis sempervirens* | | | 87.020.30 | |
| *Pinus jeffreyi - Abies concolor / Iris innominata* | | | 87.205.06 | |
| *Pinus jeffreyi - Abies concolor / Quercus sadleriana* | | | 87.205.05 | |
| *Pinus jeffreyi - Abies concolor / Symphoricarpos rotundifolius / Elymus elymoides* | | | 87.205.07 | |
| *Pinus jeffreyi - Abies magnifica* | | | 87.020.39 | |
| *Pinus jeffreyi - Calocedrus decurrens / Ceanothus cuneatus* | | | 87.020.04 | |
| *Pinus jeffreyi - Calocedrus decurrens / Ceanothus pumila* | | | 87.020.28 | |
| *Pinus jeffreyi - Calocedrus decurrens / Quercus vacciniifolia* | | | 87.020.37 | |
| *Pinus jeffreyi - Calocedrus decurrens / Quercus vacciniifolia / Xerophyllum tenax* | | | 87.020.05 | |
| *Pinus jeffreyi - Pinus monophylla* | | | 87.020.26 | |
| *Pinus jeffreyi - Pinus ponderosa - Quercus kelloggii / Poa wheeleri / granite* | | | 87.200.08 | |
| *Pinus jeffreyi - Pinus ponderosa / Amelanchier alnifolia - Mahonia repens* | | | 87.200.09 | |
| *Pinus jeffreyi - Pinus ponderosa / Purshia tridentata var. tridentata / Festuca idahoensis / Granite* | | | *87.200.03 | |

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| *Pinus jeffreyi - Pinus ponderosa / Symphoricarpos mollis / Wyethia mollis* | | | *87.200.07 |
| *Pinus jeffreyi - Pseudotsuga menziesii / Quercus vacciniifolia / Festuca californica* | | | *87.020.02 |
| *Pinus jeffreyi - Quercus chrysolepis / Arctostaphylos viscida* | | | 87.020.38 |
| *Pinus jeffreyi - Quercus kelloggii* | | | 87.020.25 |
| *Pinus jeffreyi - Quercus kelloggii / Poa secunda* | | | *87.020.15 |
| *Pinus jeffreyi - Quercus kelloggii / Rhus trilobata* | | | *87.020.16 |
| *Pinus jeffreyi / Arctostaphylos nevadensis* | | | 87.020.24 |
| *Pinus jeffreyi / Arctostaphylos patula* | | | 87.020.09 |
| *Pinus jeffreyi / Arctostaphylos patula - Ceanothus velutinus* | | | 87.020.35 |
| *Pinus jeffreyi / Artemisia tridentata / Penstemon centranthifolius* | | | 87.020.32 |
| *Pinus jeffreyi / Artemisia tridentata var. vaseyana / Festuca idahoensis* | | | *87.020.19 |
| *Pinus jeffreyi / Calamagrostis koelerioides* | | | *87.020.23 |
| *Pinus jeffreyi / Ceanothus cordulatus* | | | 87.020.10 |
| *Pinus jeffreyi / Ceanothus cordulatus - Artemisia tridentata* | | | 87.020.36 |
| *Pinus jeffreyi / Cercocarpus ledifolius* | | | *87.020.17 |
| *Pinus jeffreyi / Chrysolepis sempervirens* | | | *87.020.20 |
| *Pinus jeffreyi / Ericameria ophitidis* | | | *87.020.22 |
| *Pinus jeffreyi / Festuca idahoensis* | | | *87.020.03 |
| *Pinus jeffreyi / Lupinus caudatus* | | | 87.020.11 |
| *Pinus jeffreyi / Purshia tridentata var. tridentata* | | | *87.020.21 |
| *Pinus jeffreyi / Purshia tridentata var. tridentata - Symphoricarpos longiflorus / Poa wheeleri* | | | *87.020.14 |
| *Pinus jeffreyi / Purshia tridentata var. tridentata / Cercocarpus ledifolius / Achnatherum occidentalis* | | | *87.020.13 |
| *Pinus jeffreyi / Purshia tridentata var. tridentata / Wyethia mollis* | | | *87.020.12 |
| *Pinus jeffreyi / Quercus palmeri* | | | 87.020.33 |
| *Pinus jeffreyi / Quercus sadleriana / Xerophyllum tenax* | | | 87.020.01 |
| *Pinus jeffreyi / Quercus vacciniifolia* | | | 87.020.08 |
| *Pinus jeffreyi / Quercus vacciniifolia - Arctostaphylos nevadensis / Festuca idahoensis* | | | 87.020.27 |
| *Pinus jeffreyi / Quercus wislizeni* | | | 87.020.34 |
| *Pinus jeffreyi / Symphoricarpos longiflorus / Poa wheeleri* | | | *87.020.18 |
| *Pinus lambertiana* (Sugar white pine forest) Alliance | Sugar white pine forest | G4 S3 | *87.206.00 |
| *Pinus lambertiana - Chrysolepis chrysophylla / Quercus vacciniifolia - Quercus sadleriana* | | | *87.206.01 |
| *Pinus lambertiana - Pinus contorta ssp contorta / Quercus vacciniifolia - Lithocarpus densiflorus var. echinoides* | | | *87.206.02 |
| *Pinus lambertiana - Pinus contorta ssp. contorta / Lithocarpus densiflorus var. echinoides - Rhododendron macrophyllum* | | | *87.206.03 |
| *Pinus lambertiana - Pinus monticola / Quercus vacciniifolia - Garrya buxifolia* | | | *87.206.04 |
| *Pinus ponderosa* (Ponderosa pine forest) Alliance | Ponderosa pine forest | G5 S4 (some associations are of high priority for | 87.010.00 |
| Upland Coast Range Ponderosa Pine Forest | | G3 S3.2 | *CTT84131CA |
| Eastside Ponderosa Pine Forest | | G4 S2.1 | *CTT84220CA |
| Ponderosa Dune Forest | | G1 S1.1 | *CTT84221CA |
| Maritime Coast Range Ponderosa Pine Forest | | G1 S1.1 | *CTT84132CA |
| *Pinus ponderosa - Abies concolor / Lithocarpus densiflorus var. echinoides* | | | 87.010.45 |
| *Pinus ponderosa - Alnus rhombifolia* | | | 87.010.37 |
| *Pinus ponderosa - Alnus rhombifolia* | | | 87.010.44 |
| *Pinus ponderosa - Lithocarpus densiflorus* | | | 87.010.46 |
| *Pinus ponderosa - Pinus contorta ssp. murrayana / Amelanchier alnifolia* | | | *87.010.23 |
| *Pinus ponderosa - Pinus jeffreyi / Achnatherum occidentalis* | | | 87.010.54 |
| *Pinus ponderosa - Pinus jeffreyi / Artemisia tridentata var. vaseyana - Purshia tridentata var. tridentata* | | | *87.010.25 |
| *Pinus ponderosa - Pinus jeffreyi / Balsamorhiza sagittata* | | | 87.010.55 |
| *Pinus ponderosa - Pinus jeffreyi / Cercocarpus ledifolius / Pseudoroegneria spicata* | | | 87.010.49 |
| *Pinus ponderosa - Pinus jeffreyi / Frangula rubra / Poa secunda* | | | 87.010.51 |
| *Pinus ponderosa - Pinus jeffreyi / Purshia tridentata var. tridentata / Senecio integerrimus / granite* | | | 87.010.50 |
| *Pinus ponderosa - Pinus jeffreyi / Quercus vacciniifolia* | | | 87.010.53 |
| *Pinus ponderosa - Pinus jeffreyi / Quercus vacciniifolia / Wyethia mollis* | | | 87.010.52 |
| *Pinus ponderosa - Pinus lambertiana - Quercus chrysolepis / Lithocarpus densiflorus var. echinoides* | | | 87.010.48 |
| *Pinus ponderosa - Pinus lambertiana / Arctostaphylos patula - Lithocarpus densiflorus var. echinoides* | | | 87.010.47 |
| *Pinus ponderosa / Achnatherum nelsonii* | | | *87.010.18 |
| *Pinus ponderosa / Amelanchier alnifolia - Mahonia repens / Arnica cordifolia* | | | *87.010.27 |
| *Pinus ponderosa / Amelanchier alnifolia - Mahonia repens / Arnica cordifolia* | | | 87.010.42 |
| *Pinus ponderosa / Amelanchier alnifolia - Prunus virginiana* | | | *87.010.26 |
| *Pinus ponderosa / Arctostaphylos patula - Chamaebatia foliolosa* | | | *87.010.03 |
| *Pinus ponderosa / Arctostaphylos viscida* | | | 87.010.39 |
| *Pinus ponderosa / Artemisia tridentata* | | | *87.010.04 |
| *Pinus ponderosa / Artemisia tridentata var. vaseyana / Festuca idahoensis* | | | *87.010.24 |
| *Pinus ponderosa / Bromus carinatus* | | | *87.010.06 |
| *Pinus ponderosa / Ceanothus cuneatus* | | | *87.010.09 |
| *Pinus ponderosa / Ceanothus prostratus* | | | *87.010.08 |
| *Pinus ponderosa / Ceanothus velutinus / Achnatherum nelsonii* | | | *87.010.28 |
| *Pinus ponderosa / Cercocarpus ledifolius - Purshia tridentata var. tridentata / Festuca idahoensis* | | | *87.010.19 |
| *Pinus ponderosa / Cercocarpus ledifolius / Pseudoroegneria spicata* | | | *87.010.20 |
| *Pinus ponderosa / Chamaebatia foliolosa* | | | *87.010.02 |
| *Pinus ponderosa / Galium angustifolium* | | | *87.010.07 |

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| *Pinus ponderosa / Lithocarpus densiflorus var. echinoides* | | | 87.010.43 | |
| *Pinus ponderosa / Purshia tridentata var. tridentata* | | | *87.010.05 | |
| *Pinus ponderosa / Purshia tridentata var. tridentata - Arctostaphylos patula / Achnatherum nelsonii* | | | *87.010.13 | |
| *Pinus ponderosa / Purshia tridentata var. tridentata - Ceanothus velutinus* | | | *87.010.14 | |
| *Pinus ponderosa / Purshia tridentata var. tridentata - Prunus virginiana / Bromus orcuttianus* | | | 87.010.41 | |
| *Pinus ponderosa / Purshia tridentata var. tridentata - Ribes cereum / Bromus orcuttianus* | | | *87.010.16 | |
| *Pinus ponderosa / Purshia tridentata var. tridentata / Achnatherum nelsonii / pumice* | | | *87.010.12 | |
| *Pinus ponderosa / Purshia tridentata var. tridentata / Balsamorhiza sagittata* | | | *87.010.10 | |
| *Pinus ponderosa / Purshia tridentata var. tridentata / Galium bolanderi* | | | 87.010.40 | |
| *Pinus ponderosa / Purshia tridentata var. tridentata / Senecio integerrimus / granite* | | | *87.010.15 | |
| *Pinus ponderosa / Symphoricarpos longiflorus* | | | *87.010.29 | |
| *Pinus ponderosa stream terrace* | | | 87.010.38 | |
| *Pinus ponderosa - Calocedrus decurrens* (Mixed conifer forest) Alliance | Mixed conifer forest | G4 S4 | 87.015.00 | |
| *Pinus ponderosa - Calocedrus decurrens - Quercus kelloggii* | | | 87.015.02 | |
| *Pinus ponderosa - Calocedrus decurrens (mixed conifer) - Quercus chrysolepis / Chamaebatia foliosa* | | | 87.015.04 | |
| *Pinus ponderosa - Calocedrus decurrens (mixed conifer) / Arctostaphylos sp. - Chamaebatia foliolosa* | | | 87.015.08 | |
| *Pinus ponderosa - Calocedrus decurrens (mixed conifer) / Galium bolanderi - Polygala cornuta* | | | 87.015.01 | |
| *Pinus ponderosa - Calocedrus decurrens / Ceanothus prostratus* | | | 87.015.10 | |
| *Pinus ponderosa - Calocedrus decurrens / Chamaebatia foliolosa / Galium bolanderi* | | | 87.015.11 | |
| *Pinus ponderosa - Calocedrus decurrens / Chamaebatia foliosa* | | | 87.015.03 | |
| *Pinus ponderosa - Calocedrus decurrens / Mahonia nervosa* | | | 87.015.09 | |
| *Pinus ponderosa - Calocedrus decurrens / Purshia tridentata / Achnatherum occidentalis* | | | 87.015.14 | |
| *Pinus ponderosa - Calocedrus decurrens / Purshia tridentata var. tridentata / (Balsamorhiza sagittata - Achnatherum occidentalis)* | | | 87.015.13 | |
| *Pinus ponderosa - Calocedrus decurrens / Quercus chrysolepis var. nana - Quercus vacciniifolia* | | | 87.015.12 | |
| *Pinus ponderosa - Calocedrus decurrens / Quercus vaccinifolia (serpentine)* | | | 87.015.05 | |
| *Pinus washoensis* (Washoe pine woodland) Alliance | Washoe pine woodland | G2 S2 | *87.120.00 | |
| Washoe Pine Fir Forest | | G1 S1.2 | | *CTT85220CA |
| *Pinus washoensis / Lupinus caudatus* | | | *87.120.01 | |
| *Pinus washoensis / Symphoricarpos longiflorus / Pseudostellaria jamesiana* | | | *87.120.02 | |
| *Pseudotsuga macrocarpa* (Bigcone Douglas fir forest) Alliance | Bigcone Douglas fir forest | G3 S3 | *82.100.00 | |
| Bigcone Spruce Canyon Oak Forest | | G3 S3.2 | | *CTT84150CA |
| *Pseudotsuga macrocarpa - Quercus agrifolia* | | | *82.100.01 | |
| *Pseudotsuga macrocarpa - Quercus chrysolepis* | | | *82.100.02 | |
| *Sequoiadendron giganteum* (Giant sequoia forest) Alliance | Giant sequoia forest | G3 S3 | *86.200.00 | |
| Big Tree Forest | | G3 S3.2 | | *CTT84250CA |
| *Sequoiadendron giganteum - Pinus lambertiana / Cornus nuttallii* | | | *86.200.01 | |
| Southern California Subalpine Forest | | G3 S3.3 | | *CTT86500CA |
| *Abies lasiocarpa* (Subalpine fir forest) Alliance | Subalpine fir forest | G5 S2 | *88.400.00 | |
| *Abies lasiocarpa* | | | *88.400.01 | |
| *Picea engelmannii* (Engelmann spruce forest) Alliance | Engelmann spruce forest | G5 S2 | *83.100.00 | |
| *Populus tremuloides* (Aspen groves) Alliance | Aspen groves | G5 S3 | *61.111.00 | |
| Aspen Forest | | G5 S3.2 | | CTT81B00CA |
| Aspen Riparian Forest | | G4 S3.2 | | *CTT61520CA |
| *Populus tremuloides* | | | *61.111.02 | |
| *Populus tremuloides - Pinus contorta / Artemisia tridentata / Poa pratensis* | | | *61.111.11 | |
| *Populus tremuloides / Artemisia tridentata* | | | *61.111.06 | |
| *Populus tremuloides / Artemisia tridentata / Monardella odoratissima - Kelloggia galioides* | | | *61.111.07 | |
| *Populus tremuloides / Bromus carinatus* | | | *61.111.19 | |
| *Populus tremuloides / dry graminoid* | | | *61.111.18 | |
| *Populus tremuloides / mesic forb* | | | *61.111.17 | |
| *Populus tremuloides / Monardella odoratissima* | | | *61.111.08 | |
| *Populus tremuloides / Pinus jeffreyi* | | | *61.111.09 | |
| *Populus tremuloides / Poa pratensis* | | | *61.111.20 | |
| *Populus tremuloides / Prunus* | | | *61.111.14 | |
| *Populus tremuloides / Rosa woodsii* | | | *61.111.10 | |
| *Populus tremuloides / Symphoricarpos albus* | | | *61.111.15 | |
| *Populus tremuloides / Symphoricarpos rotundifolius* | | | *61.111.16 | |
| *Populus tremuloides / Symphyotricum foliaceum* | | | *61.111.05 | |
| *Populus tremuloides / upland* | | | *61.111.04 | |
| *Populus tremuloides / Veratrum californicum* | | | *61.111.03 | |
| *Pinus albicaulis* (Whitebark pine forest) Alliance | Whitebark pine forest | G5 S4 | 87.180.00 | |
| Whitebark Pine Forest | | G4 S4 | | CTT86600CA |
| *Pinus albicaulis - Tsuga mertensiana* | | | 87.180.07 | |
| *Pinus albicaulis / Achnatherum californica* | | | 87.180.01 | |
| *Pinus albicaulis / Arenaria aculeata* | | | 87.180.03 | |
| *Pinus albicaulis / Carex filifolia* | | | 87.180.08 | |
| *Pinus albicaulis / Carex rossii* | | | 87.180.09 | |
| *Pinus albicaulis / Holodiscus discolor* | | | 87.180.04 | |
| *Pinus albicaulis / Penstemon davidsonii* | | | 87.180.06 | |
| *Pinus albicaulis / Penstemon gracilentus* | | | 87.180.02 | |

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| *Pinus albicaulis / Poa wheeleri* | | | 87.180.05 | |
| *Pinus balfouriana* (Foxtail pine woodland) Alliance | Foxtail pine woodland | G3 S3 | *87.150.00 | |
| Foxtail Pine Forest | | G3 S3.3 | | *CTT86300CA |
| *Pinus balfouriana* | | | *87.150.01 | |
| *Pinus balfouriana - Abies magnifica* | | | *87.150.04 | |
| *Pinus balfouriana - Pinus albicaulis* | | | *87.150.05 | |
| *Pinus balfouriana - Pinus flexilis* | | | *87.150.07 | |
| *Pinus balfouriana - Pinus monticola* | | | *87.150.06 | |
| *Pinus balfouriana / Anemone drummondii* | | | *87.150.02 | |
| *Pinus balfouriana / Chrysolepis sempervirens* | | | *87.150.03 | |
| *Pinus flexilis* (Limber pine woodland) Alliance | Limber pine woodland | G5 S3 | *87.160.00 | |
| Limber Pine Forest | | G4 S2.3 | | CTT86700CA |
| *Pinus flexilis - Pinus contorta / Chrysolepis sempervirens* | | | *87.160.02 | |
| *Pinus flexilis - Pinus contorta ssp. murryana* | | | *87.160.03 | |
| *Pinus flexilis / Cercocarpus ledifolius* | | | *87.160.01 | |
| *Pinus longaeva* (Bristlecone pine woodland) Alliance | Bristlecone pine woodland | G4 S2 | *87.140.00 | |
| Bristlecone Pine Forest | | G4 S2.3 | | *CTT86400CA |
| *Pinus longaeva* | | | *87.140.01 | |
| *Pinus longaeva / Cercocarpus intricatus* | | | *87.140.02 | |
| *Abies grandis* (Grand fir forest) Alliance | Grand fir forest | G4 S2 | *88.100.00 | |
| Grand Fir Forest | | G1 S1.1 | | *CTT82120CA |
| *Chamaecyparis lawsoniana* (Port Orford cedar forest) Alliance | Port Orford cedar forest | G3 S3 | *81.100.00 | |
| Port Orford Cedar Forest | | G3 S2.1 | | *CTT82500CA |
| *Chamaecyparis lawsoniana - Abies concolor / Acer circinatum* | | | *81.100.31 | |
| *Chamaecyparis lawsoniana - Abies concolor / Alnus viridis* | | | *81.100.30 | |
| *Chamaecyparis lawsoniana - Abies concolor / Chrysolepis sempervirens (-Rhododendron occidentale - Leucothoe davisiae)* | | | *81.100.14 | |
| *Chamaecyparis lawsoniana - Abies concolor / herb* | | | *81.100.08 | |
| *Chamaecyparis lawsoniana - Abies concolor / Quercus sadleriana* | | | *81.100.07 | |
| *Chamaecyparis lawsoniana - Abies concolor / Quercus vacciniifolia* | | | *81.100.09 | |
| *Chamaecyparis lawsoniana - Abies concolor / Rhododendron occidentale* | | | *81.100.06 | |
| *Chamaecyparis lawsoniana - Abies x shastensis - Picea breweri / Quercus sadleriana - Quercus vacciniifolia* | | | *81.100.32 | |
| *Chamaecyparis lawsoniana - Abies x shastensis / Alnus viridis - Quercus sadleriana* | | | *81.100.33 | |
| *Chamaecyparis lawsoniana - Abies x shastensis / Alnus viridis / Darlingtonia californica* | | | *81.100.34 | |
| *Chamaecyparis lawsoniana - Abies x shastensis / Quercus sadleriana - Vaccinium membranaceum* | | | *81.100.03 | |
| *Chamaecyparis lawsoniana - Calocedrus decurrens - Alnus rhombifolia* | | | *81.100.39 | |
| *Chamaecyparis lawsoniana - Calocedrus decurrens / Quercus vacciniifolia* | | | *81.100.40 | |
| *Chamaecyparis lawsoniana - Pinus monticola / Alnus viridis* | | | *81.100.16 | |
| *Chamaecyparis lawsoniana - Pinus monticola / dry herb complex* | | | *81.100.19 | |
| *Chamaecyparis lawsoniana - Pinus monticola / Quercus vacciniifolia* | | | *81.100.10 | |
| *Chamaecyparis lawsoniana - Pinus monticola / Rhododendron neoglandulosum / Darlingtonia californica* | | | *81.100.15 | |
| *Chamaecyparis lawsoniana - Pinus monticola / Rhododendron neoglandulosum / Darlingtonia californica* | | | *81.100.38 | |
| *Chamaecyparis lawsoniana - Pinus monticola / Rhododendron occidentale - Lithocarpus densiflorus var. echinoides - Rhododendron neoglandulosum* | | | *81.100.37 | |
| *Chamaecyparis lawsoniana - Pinus monticola / Vaccinium membranaceum* | | | *81.100.17 | |
| *Chamaecyparis lawsoniana - Pinus monticola / wet herb complex* | | | *81.100.18 | |
| *Chamaecyparis lawsoniana - Pseudotsuga menziesii - Lithocarpus densiflorus / Quercus vacciniifolia* | | | *81.100.25 | |
| *Chamaecyparis lawsoniana - Pseudotsuga menziesii - Lithocarpus densiflorus / Rhododendron macrophyllum* | | | *81.100.26 | |
| *Chamaecyparis lawsoniana - Pseudotsuga menziesii / Calycanthus occidentalis* | | | *81.100.22 | |
| *Chamaecyparis lawsoniana - Pseudotsuga menziesii / Corylus cornuta* | | | *81.100.35 | |
| *Chamaecyparis lawsoniana - Pseudotsuga menziesii / Quercus vacciniifolia* | | | *81.100.02 | |
| *Chamaecyparis lawsoniana - Tsuga heterophylla / Chrysolepis sempervirens* | | | *81.100.20 | |
| *Chamaecyparis lawsoniana - Tsuga heterophylla / Leucothoe davisiae* | | | *81.100.24 | |
| *Chamaecyparis lawsoniana - Tsuga heterophylla / Rhododendron neoglandulosum* | | | *81.100.21 | |
| *Chamaecyparis lawsoniana / Gaultheria shallon* | | | *81.100.05 | |
| *Chamaecyparis lawsoniana / Quercus vacciniifolia - Rhododendron occidentale* | | | *81.100.12 | |
| *Chamaecyparis lawsoniana / Rhododendron macrophyllum - Gaultheria shallon* | | | *81.100.04 | |
| *Chamaecyparis lawsoniana / Rhododendron occidentale* | | | *81.100.01 | |
| *Chamaecyparis lawsoniana / Rhododendron occidentale - Lithocarpus densiflorus var. echinoides* | | | *81.100.11 | |
| *Picea sitchensis* (Sitka spruce forest) Alliance | Sitka spruce forest | G5 S2 | *83.200.00 | |
| Sitka Spruce Forest | | G1 S1.1 | | *CTT82110CA |
| Sitka Spruce Grand Fir Forest | | G4 S1.1 | | CTT82100CA |
| *Picea sitchensis - Tsuga heterophylla* | | | *83.200.04 | |
| *Picea sitchensis / Maianthemum dilatatum* | | | *83.200.01 | |
| *Picea sitchensis / Polystichum munitum* | | | *83.200.03 | |
| *Picea sitchensis / Rubus spectabilis* | | | *83.200.02 | |
| *Pinus contorta var. contorta* (Beach pine forest) Alliance | Beach pine forest | G5 S3 | *87.060.00 | |
| Beach Pine Forest | | G4 S2.1 | | *CTT83110CA |
| *Pinus contorta var. contorta* | | | *87.060.01 | |
| *Pinus contorta ssp. contorta - Picea sitchensis* | | | *87.060.02 | |
| *Sequoia sempervirens* (Redwood forest) Alliance | Redwood forest | G3 S3 | *86.100.00 | |
| Upland Redwood Forest | | G3 S2.3 | | *CTT82320CA |

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| *Sequoia sempervirens* | | | *86.100.04 | |
| *Sequoia sempervirens - Acer macrophyllum - Umbellularia californica* | | | *86.100.14 | |
| *Sequoia sempervirens - Acer macrophyllum / Polypodium californicum* | | | *86.100.01 | |
| *Sequoia sempervirens - Alnus rubra / Rubus spectabilis* | | | *86.100.29 | |
| North Coast Alluvial Redwood Forest | | G2 S2.2 | | *CTT61120CA |
| *Sequoia sempervirens - Arbutus menziesii / Vaccinium ovatum* | | | *86.100.15 | |
| *Sequoia sempervirens - Chrysolepis chrysophylla / Arctostaphylos glandulosa* | | | *86.100.18 | |
| *Sequoia sempervirens - Lithocarpus densiflorus / Carex globosa - Iris douglasiana* | | | *86.100.06 | |
| *Sequoia sempervirens - Lithocarpus densiflorus / Vaccinium ovatum* | | | *86.100.16 | |
| *Sequoia sempervirens - Pseudotsuga menziesii - Lithocarpus densiflorus - Chamaecyparis lawsoniana / Vaccinium ovatum* | | | *86.100.23 | |
| *Sequoia sempervirens - Pseudotsuga menziesii - Umbellularia californica* | | | *86.100.20 | |
| *Sequoia sempervirens - Pseudotsuga menziesii / Arbutus menziesii* | | | *86.100.10 | |
| *Sequoia sempervirens - Pseudotsuga menziesii / Gaultheria shallon* | | | *86.100.11 | |
| *Sequoia sempervirens - Pseudotsuga menziesii / Rhododendron macrophyllum* | | | *86.100.26 | |
| *Sequoia sempervirens - Pseudotsuga menziesii / Vaccinium ovatum* | | | *86.100.12 | |
| *Sequoia sempervirens - Tsuga heterophylla / Polystichum munitum* | | | *86.100.28 | |
| *Sequoia sempervirens - Tsuga heterophylla / Rubus spectabilis* | | | *86.100.30 | |
| *Sequoia sempervirens - Tsuga heterophylla / Vaccinium ovatum* | | | *86.100.27 | |
| *Sequoia sempervirens - Umbellularia californica* | | | *86.100.21 | |
| *Sequoia sempervirens / (Pteridium aquilinum) - Woodwardia fimbriata* | | | *86.100.02 | |
| *Sequoia sempervirens / Arbutus menziesii* | | | *86.100.09 | |
| *Sequoia sempervirens / Blechnum spicant* | | | *86.100.07 | |
| *Sequoia sempervirens / Mahonia nervosa* | | | *86.100.08 | |
| *Sequoia sempervirens / Marah fabaceus - Vicia angustifolia* | | | *86.100.05 | |
| *Sequoia sempervirens / Oxalis oregana* | | | *86.100.13 | |
| *Sequoia sempervirens / Polystichum munitum* | | | *86.100.25 | |
| *Sequoia sempervirens / Pteridium aquilinum* | | | *86.100.24 | |
| *Sequoia sempervirens / Pteridium aquilinum - Trillium ovatum* | | | *86.100.03 | |
| *Tsuga heterophylla* (Western hemlock forest) Alliance | Western hemlock forest | G5 S2 | *84.200.00 | |
| Western Hemlock Forest | | G4 S1.1 | | CTT82200CA |
| *Tsuga heterophylla - Pseudotsuga menziesii - Chamaecyparis lawsoniana* | | | *84.200.01 | |
| Coastal Douglas Fir Western Hemlock Forest | | G4 S2.1 | | CTT82410CA |
| *Abies amabilis* (Pacific silver fir forest) Alliance | Pacific silver fir forest | G5 S1 | *88.800.00 | |
| *Abies amabilis* | | | *88.800.01 | |
| *Abies magnifica* (Red fir forest) Alliance | Red fir forest | G5 S4 (some associations are of high priority for | 88.200.00 | |
| Red Fir Forest | | G4 S4 | | CTT85310CA |
| *Abies magnifica* | | | 88.200.23 | |
| *Abies magnifica - Pinus monticola* | | | 88.200.30 | |
| *Abies magnifica - Tsuga mertensiana / Orthilia secunda* | | | 88.200.15 | |
| *Abies magnifica - Picea breweriana / Quercus sadleriana - Vaccinium membranaceum* | | | 88.200.14 | |
| *Abies magnifica - Pinus contorta / Sphenosciadium capitellatum* | | | 88.200.16 | |
| *Abies magnifica - Pinus contorta ssp. murrayana / Hieracium albiflorum* | | | 88.200.24 | |
| *Abies magnifica - Pinus monticola - Pinus contorta ssp. murrayana* | | | 88.200.29 | |
| *Abies magnifica - Pinus monticola / Quercus vacciniifolia* | | | 88.200.43 | |
| *Abies magnifica - (Calocedrus decurrens)* | | | *88.200.10 | |
| *Abies magnifica / Achlys triphylla* | | | 88.200.03 | |
| *Abies magnifica / Arctostaphylos nevadensis* | | | 88.200.27 | |
| *Abies magnifica / Chimaphila umbellata* | | | 88.200.05 | |
| *Abies magnifica / Leucothoe davisiae* | | | 88.200.35 | |
| *Abies magnifica / Linnaea borealis* | | | 88.200.37 | |
| *Abies magnifica / Lupinus albifrons* | | | 88.200.41 | |
| *Abies magnifica / Orthilia secunda* | | | 88.200.11 | |
| *Abies magnifica / Penstemon gracilentus* | | | 88.200.06 | |
| *Abies magnifica / Pinus contorta ssp. murrayana* | | | 88.200.25 | |
| *Abies magnifica / Pinus monticola / Arctostaphylos nevadensis* | | | 88.200.28 | |
| *Abies magnifica / Pinus monticola / Chrysolepis sempervirens* | | | 88.200.31 | |
| *Abies magnifica / Pyrola picta* | | | 88.200.13 | |
| *Abies magnifica / Quercus sadleriana* | | | 88.200.01 | |
| *Abies magnifica / Quercus sadleriana - Arctostaphylos nevadensis* | | | 88.200.09 | |
| *Abies magnifica / Quercus vacciniifolia* | | | 88.200.36 | |
| *Abies magnifica / Rhododendron macrophyllum* | | | *88.200.12 | |
| *Abies magnifica / Vaccinium membranaceum* | | | *88.200.02 | |
| *Abies magnifica / Wyethia mollis* | | | 88.200.26 | |
| *Callitropsis nootkatensis* (Alaska yellow-cedar stands) Alliance | Alaska yellow-cedar stands | G4 S1 | *81.200.00 | |
| *Pinus contorta ssp. Murrayana* (Lodgepole pine forest) Alliance | Lodgepole pine forest | G4 S4 | 87.080.00 | |
| Lodgepole Pine Forest | | G4 S4 | | CTT86100CA |
| *Pinus contorta ssp. murrayana* | | | 87.080.01 | |
| *Pinus contorta ssp. murrayana - Pinus albicaulis / Carex filifolia* | | | 87.080.17 | |
| Whitebark Pine Lodgepole Pine Forest | | G4 S4 | | CTT86220CA |
| *Pinus contorta ssp. murrayana - Pinus albicaulis / Carex rossii* | | | 87.080.11 | |

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| *Pinus contorta ssp. murrayana / Artemisia tridentata* | | | 87.080.02 | |
| *Pinus contorta ssp. murrayana / Carex filifolia* | | | 87.080.10 | |
| *Pinus contorta ssp. murrayana / Carex rossii* | | | 87.080.06 | |
| *Pinus contorta ssp. murrayana / Carex spp.* | | | 87.080.13 | |
| *Pinus contorta ssp. Murrayana / Cistanthe umbellata* | | | 87.080.05 | |
| *Pinus contorta ssp. murrayana / Ligusticum grayi* | | | 87.080.03 | |
| *Pinus contorta ssp. murrayana / Penstemon newberryi* | | | 87.080.12 | |
| *Pinus contorta ssp. murrayana / Rhododendron neoglandulosum* | | | 87.080.08 | |
| *Pinus contorta ssp. murrayana / Rhododendron neoglandulosum - Phyllodoce breweri* | | | 87.080.14 | |
| *Pinus contorta ssp. murrayana / Thalictrum fendleri* | | | 87.080.07 | |
| *Pinus contorta ssp. murrayana / Vaccinium caespitosum* | | | 87.080.15 | |
| *Pinus contorta ssp. murrayana / Vaccinium uliginosum* | | | 87.080.09 | |
| *Pinus contorta ssp. murrayana / Vaccinium uliginosum - Rhododendron neoglandulosum* | | | 87.080.16 | |
| *Pinus monticola* (Western white pine forest) Alliance | Western white pine forest | G5 S4 (some associations are of high priority for | 87.170.00 | |
| *Pinus monticola - Pinus contorta ssp. contorta / Lithocarpus densiflorus var. echinoides* | | | *87.170.01 | |
| *Pinus monticola - Pinus contorta var. ssp. Murrayana* | | | 87.170.07 | |
| *Pinus monticola - Pseudotsuga menziesii / Quercus vacciniifolia - Lithocarpus densiflorus var. echinoides* | | | 87.170.08 | |
| *Pinus monticola / Achnatherum occidentalis* | | | 87.170.06 | |
| *Pinus monticola / Angelica arguta* | | | *87.170.04 | |
| *Pinus monticola / Holodiscus discolor* | | | *87.170.02 | |
| *Pinus monticola / Xerophyllum tenax* | | | *87.170.03 | |
| Ultramafic White Pine Forest | | G3 S3.2 | | *CTT84160CA |
| *Tsuga mertensiana* (Mountain hemlock forest) Alliance | Mountain hemlock forest | G5 S4 | 84.100.00 | |
| *Tsuga mertensiana* | | | 84.100.04 | |
| *Tsuga mertensiana - Pinus contorta ssp. murrayana* | | | 84.100.15 | |
| *Tsuga mertensiana - Pinus contorta var. murrayana - Pinus monticola* | | | 84.100.11 | |
| *Tsuga mertensiana - Pinus monticola* | | | 84.100.10 | |
| *Tsuga mertensiana / Arnica cordifolia* | | | 84.100.09 | |
| *Tsuga mertensiana / Juncus parryi* | | | 84.100.02 | |
| *Tsuga mertensiana / Phyllodoce empetriformis* | | | 84.100.01 | |
| *Tsuga mertensiana / Pyrola picta* | | | 84.100.08 | |
| *Tsuga mertensiana / Quercus sadleriana* | | | 84.100.03 | |
| *Tsuga mertensiana / Quercus vacciniifolia* | | | 84.100.07 | |
| *Tsuga mertensiana / steep* | | | 84.100.14 | |
| Great Basin Woodlands | | G4 S4 | | CTT72100CA |
| *Juniperus grandis* (Mountain juniper woodland) Alliance | Mountain juniper woodland | G4 S4 | 89.200.00 | |
| *Juniperus grandis* | | | 89.200.01 | |
| *Juniperus grandis - Cercocarpus ledifolius / Artemisia tridentata* | | | 89.200.03 | |
| *Juniperus grandis / Arctostaphylos nevadensis* | | | 89.200.05 | |
| *Juniperus grandis / Artemisia tridentata* | | | 89.200.02 | |
| *Juniperus grandis / Holodiscus discolor* | | | 89.200.04 | |
| *Juniperus osteosperma* (Utah juniper woodland) Alliance | Utah juniper woodland | G5 S3 | *89.300.00 | |
| Great Basin Juniper Woodland and Scrub | | G4 S4 | | CTT72123CA |
| Mojavean Juniper Woodland and Scrub | | G4 S4 | | CTT72220CA |
| *Juniperus osteosperma* | | | *89.300.01 | |
| *Juniperus osteosperma / Ambrosia dumosa* | | | *89.300.07 | |
| *Juniperus osteosperma / Artemisia tridentata - Ephedra viridis* | | | *89.300.02 | |
| *Juniperus osteosperma / Artemisia tridentata - Purshia glandulosa - Ephedra nevadensis* | | | *89.300.03 | |
| *Juniperus osteosperma / Atriplex confertifolia - (Tetradymia axillaris)* | | | *89.300.06 | |
| *Juniperus osteosperma / Coleogyne ramosissima / (Achnatherum speciosum)* | | | *89.300.08 | |
| *Juniperus osteosperma / Coleogyne ramosissima / Pleuraphis jamesii* | | | *89.300.09 | |
| *Juniperus osteosperma / Ephedra nevadensis / Achnatherium speciosum* | | | *89.300.11 | |
| *Juniperus osteosperma / Eriogonum fasciculatum* | | | *89.300.04 | |
| *Juniperus osteosperma / Gutierrezia microcephala* | | | *89.300.05 | |
| *Juniperus osteosperma / Yucca baccata* | | | *89.300.10 | |
| *Pinus edulis* (Two-needle pinyon stands) Special Stands | Two-needle pinyon stands | G4 S2? | *87.050.00 | |
| *Pinus monophylla* (Singleleaf pinyon woodlands) Alliance | Singleleaf pinyon woodlands | G5 S4 | 87.040.00 | |
| Mojavean Pinon Woodland | | G4 S3.2 | | CTT72210CA |
| Peninsular Pinon Woodland | | G3 S3.2 | | *CTT72310CA |
| Great Basin Pinon Juniper Woodland | | G4 S4 | | CTT72121CA |
| Great Basin Pinon Woodland | | G3 S3.2 | | *CTT72122CA |
| *Pinus monophylla - Juniperus californica / Achnatherum speciosum* | | | 87.040.14 | |
| *Pinus monophylla - Juniperus californica / Quercus cornelius-mulleri* | | | 87.040.18 | |
| *Pinus monophylla - Juniperus osteosperma / Artemisia tridentata* | | | 87.040.16 | |
| *Pinus monophylla - Juniperus osteosperma / Cercocarpus intricatus* | | | 87.040.17 | |
| *Pinus monophylla / Artemisia tridentata* | | | 87.040.02 | |
| *Pinus monophylla / Artemisia tridentata / Elymus elymoides* | | | 87.040.15 | |
| *Pinus monophylla / Cercocarpus ledifolius / Artemisia tridentata - Purshia tridentata* | | | 87.040.12 | |
| *Pinus monophylla / Ephedra viridis* | | | 87.040.03 | |
| *Pinus monophylla / Garrya flavescens* | | | 87.040.05 | |

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| *Pinus monophylla / Juniperus californica / Artemisia tridentata - Coleogyne ramosissima* | | | 87.040.06 | |
| *Pinus monophylla / Juniperus osteosperma / Artemisia nova* | | | 87.040.07 | |
| *Pinus monophylla / Juniperus osteosperma / Purshia mexicana* | | | 87.040.13 | |
| *Pinus monophylla / Prunus fasciculata - Rhus trilobata* | | | 87.040.10 | |
| *Pinus monophylla / Quercus cornelius - mulleri / Nama californica* | | | 87.040.09 | |
| *Pinus monophylla / Ribes velutinum* | | | 87.040.11 | |
| *Pinus monophylla / Symphoricarpos rotundifolia - Ribes velutinum* | | | 87.040.04 | |
| *Juniperus occidentalis* (Western juniper woodland) Alliance | Western juniper woodland | G5 S4 | 89.400.00 | |
| Northern Juniper Woodland | | G4 S4 | | CTT72110CA |
| *Pinus monophylla / Symphoricarpos rotundifolia - Ribes velutinum* | | | 87.040.04 | |
| *Juniperus occidentalis* | | | 89.400.02 | |
| *Juniperus occidentalis - Pinus jeffreyi / (Purshia tridentata) - (Prunus virginiana)* | | | 89.400.03 | |
| *Juniperus occidentalis / Artemisia arbuscula* | | | 89.400.04 | |
| *Eucalyptus (globulus, camaldulensis)* (Eucalyptus groves) Semi-natural Stands | Eucalyptus groves | | 79.100.00 | |
| *Schinus (molle, terebinthifolius) - Myoporum laetum* (Pepper tree or Myoporum groves) Semi-natural Stands | Pepper tree or Myoporum groves | | 79.200.00 | |
| *Myoporum laetum / Arundo donax* | | | 79.200.01 | |
| *Schinus molle* | | | 79.200.02 | |
| *Schinus molle / Lepidospartum squamatum* | | | 79.200.03 | |
| Freshwater Swamp | | G2 S2.2 | | *CTT52600CA |
| *Cornus sericea* (Red osier thickets) Alliance | Red osier thickets | G4 S3? | *80.100.00 | |
| *Cornus sericea* | | | *80.100.02 | |
| *Cornus sericea - Salix exigua* | | | *80.100.03 | |
| *Cornus sericea - Salix lasiolepis* | | | *80.100.04 | |
| *Cornus sericea / Senecio triangularis* | | | *80.100.01 | |
| Montane Riparian Scrub | | G4 S4 | | CTT63500CA |
| Modoc Great Basin Riparian Scrub | | G3 S2.1 | | *CTT63600CA |
| *Betula occidentalis* (Water birch thicket) Alliance | Water birch thicket | G4 S2 | *63.610.00 | |
| Water Birch Riparian Scrub | | G? SNR | | CTT63510CA |
| *Betula occidentalis / Salix spp.* | | | *63.610.01 | |
| *Rosa woodsii* (Interior rose thickets) Provisional Alliance | Interior rose thickets | G5 S3 | *63.320.00 | |
| *Salix lutea* (Yellow willow thickets) Alliance | Yellow willow thickets | G4 S3? | *61.210.00 | |
| *Salix lutea / mesic forbs* | | | *61.210.01 | |
| *Salix lutea / mesic graminoids* | | | *61.210.02 | |
| *Salix lutea / Poa pratensis* | | | *61.210.03 | |
| *Salix lutea/ Rosa woodsii* | | | *61.210.04 | |
| *Acer glabrum* (Rocky Mountain maple thickets) Provisional Alliance | Rocky Mountain maple thickets | G5 S3? | *61.430.00 | |
| *Alnus incana* (Mountain alder thicket) Alliance | Mountain alder thicket | G4 S3 | *63.210.00 | |
| *Alnus incana* | | | *63.210.01 | |
| *Alnus incana / Glyceria elata* | | | *63.210.02 | |
| *Alnus incana / bench* | | | *63.210.03 | |
| *Alnus viridis* (Sitka alder thickets) Provisional Alliance | Sitka alder thickets | G5 S3? | *63.220.00 | |
| *Betula glandulosa* (Resin birch thickets) Provisional Alliance | Resin birch thickets | G5 S2? | *63.620.00 | |
| *Dasiphora fruticosa* (Shrubby cinquefoil scrub) Alliance | Shrubby cinquefoil scrub | G5 S3? | *38.110.00 | |
| *Dasiphora fruticosa* | | | *38.110.01 | |
| *Dasiphora fruticosa / Danthonia intermedia* | | | *38.110.02 | |
| *Dasiphora fruticosa / Danthonia unispicata* | | | *38.110.04 | |
| *Dasiphora fruticosa / Potentilla breweri* | | | *38.110.03 | |
| *Dasiphora fruticosa / Veratrum californicum* | | | *38.110.05 | |
| *Salix bebbiana* (Bebb's willow thickets) Alliance | Bebb's willow thickets | G4 S2? | *61.213.00 | |
| *Salix bebbiana / mesic forb type* | | | *61.213.01 | |
| *Salix eastwoodiae* (Sierran willow thickets) Alliance | Sierran willow thickets | G3 S3 | *61.112.00 | |
| *Salix eastwoodiae* | | | *61.112.01 | |
| *Salix eastwoodiae / Carex scopulorum* | | | *61.112.02 | |
| *Salix eastwoodiae / Oreostemma alpigenum* | | | *61.112.03 | |
| *Salix eastwoodiae / Senecio triangularis* | | | *63.160.02 | |
| *Salix geyeriana* (Geyer willow thickets) Alliance | Geyer willow thickets | G4 S2? | *61.212.00 | |
| *Salix geyeriana / grass* | | | *61.212.01 | |
| *Salix geyeriana / mesic graminoid* | | | *61.212.02 | |
| *Salix jepsonii* (Jepson willow thickets) Alliance | Jepson willow thickets | G3 S3 | *61.118.00 | |
| *Salix jepsonii* | | | *61.118.01 | |
| *Salix jepsonii - Cornus sericea* | | | *61.118.04 | |
| *Salix jepsonii - Paxistima myrsinites* | | | *61.118.03 | |
| *Salix jepsonii / Senecio triangularis* | | | *61.118.02 | |
| *Salix lemmonii* (Lemmon's willow thickets) Alliance | Lemmon's willow thickets | G4 S3 | *61.113.00 | |
| *Salix lemmonii* | | | *61.113.01 | |
| *Salix lemmonii / Carex spp.* | | | *61.113.02 | |
| *Salix lemmonii / mesic forb* | | | *61.113.04 | |
| *Salix lemmonii / mesic graminoid* | | | *61.113.03 | |
| *Salix lucida ssp. lasiandra / Urtica urens - Urtica dioica* | | | *61.204.01 | |
| *Salix orestera* (Sierra gray willow thickets) Alliance | Sierra gray willow thickets | G4 S4 (some associations are of high priority for | 61.115.00 | |

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| *Salix orestera / Allium validum* | | | *63.160.03 | |
| *Salix orestera / Calamagrostis muiriana* | | | 61.115.01 | |
| *Salix orestera / Senecio triangularis* | | | 61.115.02 | |
| *Salix orestera / tall forb* | | | 61.115.03 | |
| *Salix planifolia* (Tea-leaved willow thickets) Provisional Alliance | Tea-leaved willow thickets | G4 S2? | *61.119.00 | |
| *Salix planifolia* | | | *61.119.01 | |
| North Coast Riparian Scrub | | G3 S3.2 | | *CTT63100CA |
| *Morella californica* (Wax myrtle scrub) Alliance | Wax myrtle scrub | G3 S3 | *37.930.00 | |
| *Morella californica* | | | *37.930.01 | |
| *Salix hookeriana* (Coastal dune willow thickets) Alliance | Coastal dune willow thickets | G4 S3 | *61.203.00 | |
| *Salix hookeriana* | | | *61.203.01 | |
| *Salix hookeriana / Rubus ursinus* | | | *61.203.02 | |
| *Salix sitchensis* (Sitka willow thickets) Provisional Alliance | Sitka willow thickets | G4 S3? | *61.206.00 | |
| *Alnus rhombifolia* (White alder groves) Alliance | White alder groves | G4 S4 (some associations are of high priority for | 61.420.00 | |
| White Alder Riparian Forest | | G4 S4 | | *CTT61510CA |
| *Alnus rhombifolia* | | | 61.420.10 | |
| *Alnus rhombifolia - Acer macrophyllum* | | | 61.420.03 | |
| *Alnus rhombifolia - Fraxinus latifolia* | | | 61.420.28 | |
| *Alnus rhombifolia - Platanus racemosa* | | | 61.420.11 | |
| Southern Sycamore Alder Riparian Woodland | | G4 S4 | | *CTT62400CA |
| *Alnus rhombifolia - Platanus racemosa - Quercus chrysolepis* | | | 61.420.12 | |
| *Alnus rhombifolia - Platanus racemosa - Salix laevigata* | | | 61.420.15 | |
| *Alnus rhombifolia - Pseudotsuga menziesii* | | | 61.420.29 | |
| *Alnus rhombifolia - Pseudotsuga menziesii - Calocedrus decurrens* | | | 61.420.31 | |
| *Alnus rhombifolia - Pseudotsuga menziesii / Darmera peltata* | | | 61.420.30 | |
| *Alnus rhombifolia - Pseudotsuga menziesii / Rubus armeniacus* | | | 61.420.04 | |
| *Alnus rhombifolia - Quercus chrysolepis* | | | 61.420.22 | |
| *Alnus rhombifolia - Salix laevigata* | | | 61.420.13 | |
| *Alnus rhombifolia / Aruncus dioicus* | | | 61.420.02 | |
| *Alnus rhombifolia / Baccharis salicifolia* | | | 61.420.09 | |
| *Alnus rhombifolia / Carex nudata* | | | 61.420.24 | |
| *Alnus rhombifolia / Carex spp* | | | 61.420.23 | |
| *Alnus rhombifolia / Cornus sericea* | | | 61.420.07 | |
| *Alnus rhombifolia / Cornus sessilis* | | | 61.420.06 | |
| *Alnus rhombifolia / Darmera peltata* | | | 61.420.05 | |
| *Alnus rhombifolia / Galium trifolium* | | | 61.420.08 | |
| *Alnus rhombifolia / Galium trifolium - Stachys ajugoides* | | | 61.420.26 | |
| *Alnus rhombifolia / Leucothoe davisiae* | | | 61.420.21 | |
| *Alnus rhombifolia / Polypodium californicum* | | | *61.420.01 | |
| *Alnus rhombifolia / Pteridium aquilinum* | | | 61.420.27 | |
| *Alnus rhombifolia / Rhododendron occidentale* | | | 61.420.17 | |
| *Alnus rhombifolia / Salix exigua - (Rosa californica)* | | | 61.420.18 | |
| *Fraxinus latifolia* (Oregon ash groves) Alliance | Oregon ash groves | G4 S3 | *61.960.00 | |
| *Fraxinus latifolia* | | | *61.960.04 | |
| *Fraxinus latifolia - Alnus rhombifolia* | | | *61.960.02 | |
| *Fraxinus latifolia / Cornus sericea* | | | *61.960.03 | |
| *Fraxinus latifolia / Toxicodendron diversilobum* | | | *61.960.01 | |
| *Populus trichocarpa* (Black cottonwood forest) Alliance | Black cottonwood forest | G5 S3 | *61.120.00 | |
| Montane Black Cottonwood Riparian Forest | | G4 S3.2 | | *CTT61530CA |
| North Coast Black Cottonwood Riparian Forest | | G1 S1.1 | | *CTT61110CA |
| *Populus trichocarpa* | | | *61.120.01 | |
| *Populus trichocarpa - Pinus jeffreyi* | | | *61.120.03 | |
| *Populus trichocarpa - Quercus agrifolia* | | | *61.120.08 | |
| *Populus trichocarpa - Salix laevigata* | | | *61.120.09 | |
| *Populus trichocarpa - Salix lasiolepis* | | | *61.120.10 | |
| *Populus trichocarpa - Salix lucida* | | | *61.120.11 | |
| *Populus trichocarpa / Artemisia tridentata ssp. vaseyana* | | | *61.120.04 | |
| *Populus trichocarpa / Rhododendron occidentalis* | | | *61.120.07 | |
| *Populus trichocarpa / Symphoricarpos rotundifolius* | | | *61.120.05 | |
| *Populus / Salix* | | | *61.120.06 | |
| *Salix lucida* (Shining willow groves) Alliance | Shining willow groves | G4 S3 | *61.204.00 | |
| *Salix lucida / Poa pratensis* | | | *61.204.02 | |
| *Salix lucida ssp. lasiandra* | | | *61.204.03 | |
| *Salix lucida ssp. lasiandra / Cornus sericea* | | | *61.204.04 | |
| *Salix lucida ssp. lasiandra / Equisetum arvense* | | | *61.204.05 | |
| *Salix lucida ssp. lasiandra / Trifolium longipes* | | | *61.204.06 | |
| Mojave Riparian Forest | | G1 S1.1 | | *CTT61700CA |
| Great Valley Willow Scrub | | G3 S3.2 | | *CTT63410CA |
| Southern Mixed Riparian Forest | | G2 S2.1 | | *CTT61340CA |
| Southern Riparian Forest | | G4 S4 | | CTT61300CA |

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| Southern Riparian Scrub | | G3 S3.2 | | *CTT63300CA |
| Southern Willow Scrub | | G3 S2.1 | | *CTT63320CA |
| *Acer negundo* (Box-elder forest) Alliance | Box-elder forest | G5 S2 | *61.440.00 | |
| *Acer negundo - Salix gooddingii* | | | *61.440.01 | |
| *Juglans hindsii and Hybrids* (Hinds's walnut and related stands) Special Stands | Hinds's walnut and related stands | G1 S1 | *61.810.00 | |
| Hinds Walnut Woodland | | G1 S1.1 | | *CTT71220CA |
| *Platanus racemosa* (California sycamore woodlands) Alliance | California sycamore woodlands | G3 S3 (some associations are of high priority for | *61.310.00 | |
| *Platanus racemosa - Populus fremontii* | | | *61.314.01 | |
| *Platanus racemosa - Populus fremontii / Salix lasiolepis* | | | *61.314.03 | |
| Central Coast Cottonwood Sycamore Riparian Forest | | G3 S3.2 | | *CTT61210CA |
| *Platanus racemosa - Populus fremontii / Salix lasiolepis - Salix exigua / Scirpus americanus* | | | *61.314.02 | |
| *Platanus racemosa - Quercus agrifolia* | | | *61.312.01 | |
| *Platanus racemosa - Quercus agrifolia - Populus fremontii - Salix laevigata* | | | *61.312.06 | |
| *Platanus racemosa - Quercus agrifolia - Salix lasiolepis* | | | *61.312.03 | |
| *Platanus racemosa - Quercus agrifolia / Baccharis salicifolia / Artemisia douglasiana* | | | *61.312.04 | |
| *Platanus racemosa - Salix laevigata* | | | *61.312.07 | |
| *Platanus racemosa - Salix laevigata / Salix lasiolepis - Baccharis salicifolia* | | | *61.312.05 | |
| *Platanus racemosa / Adenostoma fasciculatum* | | | *61.313.03 | |
| *Platanus racemosa / annual grass* | | | *61.311.03 | |
| Sycamore Alluvial Woodland | | G1 S1.1 | | *CTT62100CA |
| *Platanus racemosa / Avena barbata* | | | *61.311.01 | |
| *Platanus racemosa / Baccharis salicifolia* | | | *61.313.01 | |
| *Platanus racemosa / Bromus hordeaceus* | | | *61.311.02 | |
| *Platanus racemosa / Toxicodendron diversilobum* | | | *61.313.02 | |
| *Populus fremontii* (Fremont cottonwood forest) Alliance | Fremont cottonwood forest | G4 S3 | *61.130.00 | |
| Modoc Great Basin Cottonwood Willow Riparian Forest | | G3 S2.1 | | *CTT61610CA |
| Sonoran Cottonwood Willow Riparian Forest | | G2 S1.1 | | *CTT61810CA |
| Great Valley Cottonwood Riparian Forest | | G2 S2.1 | | *CTT61410CA |
| Great Valley Mixed Riparian Forest | | G2 S2.2 | | *CTT61420CA |
| Southern Cottonwood Willow Riparian Forest | | G3 S3.2 | | *CTT61330CA |
| *Populus fremontii* | | | *61.130.06 | |
| *Populus fremontii - Juglans californica* | | | *61.130.18 | |
| *Populus fremontii - Prosopis pubescens* | | | *61.130.19 | |
| *Populus fremontii - Quercus agrifolia* | | | *61.130.20 | |
| *Populus fremontii - Salix (laevigata, lasiolepis, lucida ssp. lasiandra)* | | | *61.130.24 | |
| *Populus fremontii - Salix gooddingii / Baccharis salicifolia* | | | *61.130.14 | |
| *Populus fremontii - Salix laevigata* | | | *61.130.15 | |
| *Populus fremontii - Salix laevigata / Salix lasiolepis - Baccharis salicifolia* | | | *61.130.22 | |
| *Populus fremontii - Salix laevigata / Salix lasiolepis / Vitis girdiana* | | | *61.130.21 | |
| *Populus fremontii - Salix lasiolepis* | | | *61.130.23 | |
| *Populus fremontii - Salix lucida ssp. lasiandra* | | | *61.130.25 | |
| *Populus fremontii - Sambucus nigra* | | | *61.130.26 | |
| *Populus fremontii / Acer negundo* | | | *61.130.07 | |
| *Populus fremontii / Acer negundo / Rubus armeniacus* | | | *61.130.08 | |
| *Populus fremontii / Artemisia douglasiana* | | | *61.130.09 | |
| *Populus fremontii / Baccharis salicifolia* | | | *61.130.16 | |
| *Populus fremontii / Galium aparine* | | | *61.130.10 | |
| *Populus fremontii / Rubus ursinus* | | | *61.130.11 | |
| *Populus fremontii / Salix exigua* | | | *61.130.17 | |
| *Populus fremontii / Vitis californica* | | | *61.130.13 | |
| *Salix gooddingii* (Black willow thickets) Alliance | Black willow thickets | G4 S3 | *61.211.00 | |
| *Salix gooddingii* | | | *61.211.01 | |
| *Salix gooddingi - Populus fremontii* | | | *61.211.04 | |
| *Salix gooddingii - Quercus lobata / wetland herb* | | | *61.211.06 | |
| *Salix gooddingii - Salix laevigata* | | | *61.211.05 | |
| *Salix gooddingii - Salix lucida - Populus fremontii* | | | *61.211.08 | |
| *Salix gooddingii / Baccharis salicifolia* | | | *61.211.02 | |
| *Salix gooddingii / Lepidium latifolium* | | | *61.211.03 | |
| *Salix gooddingii / Rubus armeniacus* | | | *61.211.07 | |
| *Salix laevigata* (Red willow thickets) Alliance | Red willow thickets | G3 S3 | *61.205.00 | |
| *Salix laevigata* | | | *61.205.01 | |
| *Salix laevigata - Cornus sericea / Scirpus microcarpus* | | | *61.205.05 | |
| *Salix laevigata - Salix lasiolepis* | | | *61.205.02 | |
| *Salix laevigata - Salix lasiolepis / Artemisia douglasiana - Rubus ursinus* | | | *61.205.03 | |
| *Salix laevigata - Salix lasiolepis / Baccharis salicifolia* | | | *61.205.07 | |
| *Salix laevigata / Rosa californica* | | | *61.205.04 | |
| *Salix laevigata / Salix lasiolepis / Artemisia douglasiana* | | | *61.205.06 | |
| *Washingtonia filifera* (California fan palm oasis) Alliance | California fan palm oasis | G3 S3 | *61.520.00 | |
| Desert Fan Palm Oasis Woodland | | G3 S3.2 | | *CTT62300CA |
| *Washingtonia filifera - Platanus racemosa / Salix spp* | | | *61.520.04 | |

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| *Washingtonia filifera / spring (Atriplex - Baccharis - Pluchea)* | | | *61.520.03 | | |
| *Baccharis emoryi* (Emory's baccharis thickets) Provisional Alliance | Emory's baccharis thickets | G3 S2? | *63.520.00 | | |
| *Baccharis salicifolia* (Mulefat thickets) Alliance | Mulefat thickets | G5 S4 | 63.510.00 | | |
| Mule Fat Scrub | | G4 S4 | | CTT63310CA | |
| *Baccharis salicifolia* | | | 63.510.01 | | |
| *Baccharis salicifolia - Arundo donax* | | | 63.510.05 | | |
| *Baccharis salicifolia - Lepidospartum squamatum - Hazardia squarrosa* | | | 63.510.02 | | |
| *Baccharis salicifolia - Pluchea sericea* | | | 63.510.06 | | |
| *Baccharis salicifolia - Sambucus mexicana* | | | 63.510.03 | | |
| *Baccharis salicifolia - Tamarix ramosissima* | | | 63.510.07 | | |
| *Baccharis salicifolia / Stachys albens* | | | 63.510.04 | | |
| *Baccharis sergiloides* (Broom baccharis thickets) Alliance | Broom baccharis thickets | G4 S3 | *63.530.00 | | |
| *Baccharis sergiloides - Prunus fasciculata* | | | *63.530.01 | | |
| *Baccharis sergiloides - Prunus fasciculata - Rhus trilobata* | | | *63.530.02 | | |
| *Baccharis sergiloides / Muhlenbergia rigens* | | | *63.530.03 | | |
| *Cephalanthus occidentalis* (Button willow thickets) Alliance | Button willow thickets | G5 S2 | *63.300.00 | | |
| Buttonbush Scrub | | G1 S1.1 | | *CTT63430CA | |
| *Cephalanthus occidentalis* | | | *63.300.01 | | |
| *Forestiera pubescens* (Desert olive patches) Alliance | Desert olive patches | G3 S2 | *61.580.00 | | |
| *Forestiera pubescens* | | | *61.580.01 | | |
| *Forestiera pubescens - Sambucus nigra* | | | *61.580.02 | | |
| Woodwardia Thicket | | G3 S3.2 | | *CTT63110CA | |
| *Rhododendron occidentale* (Western azalea patches) Provisional Alliance | Western azalea patches | G3 S2? | *63.310.00 | | |
| *Rosa californica* (California rose briar patches) Alliance | California rose briar patches | G3 S3 | *63.907.00 | | |
| *Rosa californica* | | | *63.907.02 | | |
| *Rosa californica - Baccharis pilularis* | | | *63.907.01 | | |
| *Rosa californica / Schoenoplectus spp.* | | | *63.907.03 | | |
| *Salix breweri* (Brewer willow thickets) Alliance | Brewer willow thickets | G2 S2 | *61.215.00 | | |
| *Salix breweri / Muhlenbergia asperifolia* | | | *61.215.01 | | |
| *Salix exigua* (Sandbar willow thickets) Alliance | Sandbar willow thickets | G5 S4 | 61.209.00 | | |
| *Salix exigua* | | | 61.209.01 | | |
| *Salix exigua - (Saix lasiolepis) - Rubus discolor* | | | 61.209.07 | | |
| *Salix exigua - Arundo donax* | | | 61.209.02 | | |
| *Salix exigua - Brickellia californica* | | | 61.209.06 | | |
| *Salix exigua - Salix melanopsis* | | | 61.209.03 | | |
| *Salix exigua / Baccharis sergiloides* | | | 61.209.04 | | |
| *Salix exigua / Juncus spp.* | | | 61.209.05 | | |
| *Salix lasiolepis* (Arroyo willow thickets) Alliance | Arroyo willow thickets | G4 S4 (some associations are of high priority for | 61.201.00 | | |
| Southern Arroyo Willow Riparian Forest | | G2 S2.1 | | *CTT61320CA | |
| Central Coast Riparian Scrub | | G3 S3 | | *CTT63200CA | |
| Central Coast Arroyo Willow Riparian Forest | | G3 S3.2 | | *CTT61230CA | |
| *Salix lasiolepis* | | | *61.201.01 | | |
| *Salix lasiolepis - Salix lucida* | | | 61.201.04 | | |
| *Salix lasiolepis / Artemisia douglasiana* | | | 61.201.02 | | |
| *Salix lasiolepis / Baccharis pilularis - Rubus ursinus* | | | 61.201.05 | | |
| *Salix lasiolepis / Baccharis salicifolia* | | | 61.201.06 | | |
| *Salix lasiolepis / Malosma laurina* | | | 61.201.07 | | |
| *Salix lasiolepis / Rosa californica* | | | 61.201.08 | | |
| *Salix lasiolepis / Rubus spp.* | | | 61.201.03 | | |
| *Sambucus nigra* (Blue elderberry stands) Alliance | Blue elderberry stands | G3 S3 | *63.410.00 | | |
| Elderberry Savanna | | G2 S2.1 | | *CTT63440CA | |
| *Sambucus nigra* | | | *63.410.01 | | |
| *Sambucus nigra - Heteromeles arbutifolia* | | | *63.410.03 | | |
| *Sambucus nigra / Leymus condensatus* | | | *63.410.02 | | |
| *Arundo donax* (Giant reed breaks) Semi-natural Stands | Giant reed breaks | | 42.080.00 | | Invasive sp ranking: Cal IPC High |
| *Arundo donax* | | | 42.080.01 | | |
| *Arundo donax - Salix exigua* | | | 42.080.02 | | |
| *Tamarix spp.* (Tamarisk thickets) Semi-natural Stands | Tamarisk thickets | | 63.810.00 | | |
| Tamarisk Scrub | | G5 S4 | | CTT63810CA | |
| Non-Serpentine Digger Pine Chaparral Woodland | | G4 S4 | | CTT71322CA | |
| Serpentine Digger Pine Chaparral Woodland | | G3 S3.2 | | *CTT71321CA | |
| Granitic Southern Mixed Chaparral | | G3 S3.3 | | *CTT37121CA | |
| Mafic Southern Mixed Chaparral | | G3 S3.2 | | *CTT37122CA | |
| Northern Mixed Chaparral | | G4 S4 | | CTT37110CA | |
| Northern North Slope Chaparral | | G3 S3.3 | | *CTT37E10CA | |
| Southern North Slope Chaparral | | G3 S3.3 | | *CTT37E20CA | |
| Alluvial Fan Chaparral | | G2 S2.1 | | *CTT37H00CA | |
| Flannel Bush Chaparral | | G3 S3.3 | | *CTT37J00CA | |
| *Adenostoma fasciculatum* (Chamise chaparral) Alliance | Chamise chaparral | G5 S5 (some associations are of high priority for | 37.101.00 | | |
| Chamise Chaparral | | G4 S4 | | CTT37200CA | |

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| *Adenostoma fasciculatum* | | | 37.101.16 | |
| *Adenostoma fasciculatum - (Arctostaphylos glandulosa)* | | | 37.101.07 | |
| *Adenostoma fasciculatum - (Arctostaphylos manzanita)* | | | 37.101.19 | |
| *Adenostoma fasciculatum - (Arctostaphylos pungens)* | | | 37.101.26 | |
| *Adenostoma fasciculatum - (Arctostaphylos viscida)* | | | 37.101.27 | |
| *Adenostoma fasciculatum - (Ceanothus crassifolius)* | | | 37.101.08 | |
| *Adenostoma fasciculatum - (Ceanothus cuneatus)* | | | 37.101.10 | |
| *Adenostoma fasciculatum - (Ceanothus greggii / mafic)* | | | *37.101.06 | |
| *Adenostoma fasciculatum - (Ceanothus tomentosus)* | | | 37.101.11 | |
| *Adenostoma fasciculatum - Arctostaphylos glandulosa - Ceanothus jepsonii / Calamagrostis ophitidis* | | | 37.101.32 | |
| *Adenostoma fasciculatum - Arctostaphylos pringlei* | | | 37.101.22 | |
| *Adenostoma fasciculatum - Diplacus aurantiacus* | | | *37.101.12 | |
| *Adenostoma fasciculatum - Eriodictyon californicum (Lotus scoparius)* | | | 37.101.31 | |
| *Adenostoma fasciculatum - Eriogonum fasciculatum* | | | 37.101.14 | |
| *Adenostoma fasciculatum - Eriogonum fasciculatum - Salvia apiana* | | | 37.103.03 | |
| *Adenostoma fasciculatum - Hesperoyucca whipplei* | | | 37.101.04 | |
| *Adenostoma fasciculatum - Heteromeles arbutifolia / Melica torreyana* | | | 37.101.28 | |
| *Adenostoma fasciculatum - Malosma laurina* | | | 37.101.21 | |
| *Adenostoma fasciculatum - Malosma laurina - Eriodictyon crassifolium* | | | 37.101.33 | |
| *Adenostoma fasciculatum / annual grass - forb* | | | 37.101.24 | |
| *Adenostoma fasciculatum / Castilleja pruinosa* | | | 37.101.29 | |
| *Adenostoma fasciculatum / mixed herb - moss* | | | 37.101.25 | |
| *Adenostoma fasciculatum / Selaginella bigelovii* | | | 37.101.30 | |
| *Adenostoma fasciculatum disturbance* | | | 37.101.17 | |
| *Adenostoma fasciculatum serpentine* | | | *37.101.15 | |
| *Adenostoma fasciculatum - Salvia apiana* (Chamise - white sage chaparral) Alliance | Chamise - white sage chaparral | G3 S3 | *37.103.00 | |
| *Adenostoma fasciculatum - Salvia apiana* | | | *37.103.01 | |
| *Adenostoma fasciculatum - Salvia apiana - Artemisia californica* | | | *37.103.02 | |
| *Adenostoma fasciculatum - Salvia leucophylla* | | | *37.101.23 | |
| *Adenostoma fasciculatum - Salvia mellifera* (Chamise - black sage chaparral) Alliance | Chamise - black sage chaparral | G5 S5 (some associations are of high priority for | 37.102.00 | |
| *Adenostoma fasciculatum - Salvia mellifera - Artemisia californica* | | | 37.102.04 | |
| *Adenostoma fasciculatum - Salvia mellifera - Ceanothus crassifolius* | | | 37.102.05 | |
| *Adenostoma fasciculatum - Salvia mellifera - Malosma laurina* | | | 37.102.06 | |
| *Adenostoma fasciculatum - Salvia mellifera - Rhus ovata* | | | 37.102.07 | |
| *Adenostoma fasciculatum - Salvia mellifera / (herbaceous)* | | | 37.102.02 | |
| *Adenostoma fasciculatum - Salvia mellifera / mixed shrub* | | | *37.102.03 | |
| *Adenostoma fasciculatum - Xylococcus bicolor* (Chamise-mission manzanita chaparral) Alliance | Chamise-mission manzanita chaparral | G4 S3 | *37.109.00 | |
| Southern Maritime Chaparral | | G1 S1.1 | | *CTT37C30CA |
| *Adenostoma fasciculatum - Xylococcus bicolor* | | | *37.109.01 | |
| *Adenostoma fasciculatum - Xylococcus bicolor - Ceanothus crassifolius* | | | *37.109.05 | |
| *Adenostoma fasciculatum - Xylococcus bicolor - Ceanothus crassifolius - Malosma laurina* | | | *37.109.14 | |
| *Adenostoma fasciculatum - Xylococcus bicolor - Ceanothus tomentosus* | | | *37.109.02 | |
| *Adenostoma fasciculatum - Xylococcus bicolor - Ceanothus verrucosus* | | | *37.109.08 | |
| *Adenostoma fasciculatum - Xylococcus bicolor - Cneoridium dumosum* | | | *37.109.09 | |
| *Adenostoma fasciculatum - Xylococcus bicolor - Eriogonum fasciculatum* | | | *37.109.10 | |
| *Adenostoma fasciculatum - Xylococcus bicolor - Quercus berberidifolia* | | | *37.109.12 | |
| *Adenostoma fasciculatum - Xylococcus bicolor - Rhus integrifolia* | | | *37.109.11 | |
| *Adenostoma fasciculatum - Xylococcus bicolor - Salvia mellifera - Malosma laurina* | | | *37.109.13 | |
| Upper Sonoran Manzanita Chaparral | | G4 S4 | | CTT37B00CA |
| *Arctostaphylos glauca* (Bigberry manzanita chaparral) Alliance | Bigberry manzanita chaparral | G4 S4 (some associations are of high priority for | 37.301.00 | |
| *Arctostaphylos glauca* | | | 37.301.01 | |
| *Arctostaphylos glauca - Adenostoma fasciculatum* | | | 37.104.01 | |
| *Arctostaphylos glauca - Adenostoma fasciculatum - Ceanothus crassifolius* | | | 37.104.05 | |
| *Arctostaphylos glauca - Adenostoma fasciculatum - Ceanothus cuneatus* | | | 37.104.07 | |
| *Arctostaphylos glauca - Adenostoma fasciculatum - Ceanothus greggii* | | | 37.104.04 | |
| *Arctostaphylos glauca - Adenostoma fasciculatum - Ceanothus leucodermis* | | | 37.104.02 | |
| *Arctostaphylos glauca - Adenostoma fasciculatum - Diplacus aurantiacus* | | | 37.104.08 | |
| *Arctostaphylos glauca - Adenostoma fasciculatum - Hesperoyucca whipplei* | | | 37.104.03 | |
| *Arctostaphylos glauca - Adenostoma fasciculatum - Quercus berberidifolia* | | | 37.104.06 | |
| *Arctostaphylos glauca - Adenostoma fasciculatum - Rhus ovata* | | | 37.104.09 | |
| *Arctostaphylos glauca - Adenostoma fasciculatum - Salvia mellifera* | | | 37.104.10 | |
| *Arctostaphylos glauca - Adenostoma fasciculatum on serpentine* | | | 37.104.11 | |
| *Arctostaphylos glauca - Artemisia californica - Salvia mellifera* | | | 37.301.03 | |
| *Arctostaphylos glauca - Cercocarpus montanus* | | | 37.301.05 | |
| *Arctostaphylos glauca - Quercus durata / Pinus sabiniana* | | | *37.301.04 | |
| *Arctostaphylos glauca / Melica torreyana* | | | *37.301.02 | |
| *Arctostaphylos hookeri* (Hooker's manzanita chaparral) Provisional Alliance | Hooker's manzanita chaparral | G2 S2 | *37.321.00 | |
| *Arctostaphylos manzanita* (Spiny menodora scrub) Provisional Alliance | Spiny menodora scrub | G3? S3? | *37.313.00 | |
| *Arctostaphylos viscida* (White leaf manzanita chaparral) Alliance | White leaf manzanita chaparral | G4 S4 (some associations are of high priority for | 37.305.00 | |
| *Arctostaphylos viscida* | | | 37.305.01 | |

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| *Arctostaphylos viscida - Heteromeles arbutifolia - Toxicodendron diversilobum* | | | 37.305.05 | |
| *Arctostaphylos viscida - Quercus wislizeni* | | | 37.305.07 | |
| *Arctostaphylos viscida / Salvia sonomensis* | | | *37.305.03 | |
| *Arctostaphylos viscida ssp. pulchella* | | | 37.305.06 | |
| *Arctostaphylos viscida - Adenostoma fasciculatum* | | | 37.305.02 | |
| *(Arctostaphylos viscida - Adenostoma fasciculatum) / Salvia sonomensis* | | | *37.305.04 | |
| *Ceanothus crassifolius* (Hoary leaf ceanothus chaparral) Alliance | Hoary leaf ceanothus chaparral | G4 S4 | 37.208.00 | |
| Ceanothus crassifolius Chaparral | | G3 S3.2 | | *CTT37830CA |
| *Ceanothus crassifolius* | | | 37.208.01 | |
| *Ceanothus crassifolius - Adenostoma fasciculatum* | | | 37.208.02 | |
| *Ceanothus crassifolius - Adenostoma fasciculatum - Rhus ovata* | | | 37.208.04 | |
| *Ceanothus crassifolius - Adenostoma fasciculatum - Salvia mellifera* | | | 37.208.05 | |
| *Ceanothus crassifolius - Adenostoma fasciculatum - Malosma Laurina* | | | 37.208.03 | |
| *Ceanothus crassifolius - Adenostoma fasciculatum - Xylococcus bicolor* | | | 37.208.06 | |
| *Ceanothus crassifolius - Cercocarpus montanus* | | | 37.208.07 | |
| *Ceanothus crassifolius - Malosma laurina* | | | 37.208.08 | |
| *Ceanothus cuneatus* (Wedge leaf ceanothus chaparral, Buck brush chaparral) Alliance | Wedge leaf ceanothus chaparral, Buck brus | G4 S4 | 37.211.00 | |
| Buck Brush Chaparral | | G4 S4 | | CTT37810CA |
| *Ceanothus cuneatus* | | | 37.211.01 | |
| *Ceanothus cuneatus - Adenostoma fasciculatum* | | | 37.211.06 | |
| *Ceanothus cuneatus - Adenostoma fasciculatum - Salvia mellifera - Malosma laurina* | | | 37.211.10 | |
| *Ceanothus cuneatus - Eriodictyon californicum - (Fremontodendron californicum)* | | | 37.211.08 | |
| *Ceanothus cuneatus - Frangula californica - Arctostaphylos pungens* | | | 37.211.09 | |
| *Ceanothus cuneatus / Calocedrus decurrens* | | | 37.211.02 | |
| *Ceanothus cuneatus / Elymus elymoides* | | | 37.211.03 | |
| *Ceanothus cuneatus / Eriophyllum lanatum* | | | 37.211.11 | |
| *Ceanothus cuneatus / Plantago erecta* | | | 37.211.05 | |
| *Ceanothus megacarpus* (Big pod ceanothus chaparral) Alliance | Big pod ceanothus chaparral | G4 S4 | 37.201.00 | |
| Ceanothus megacarpus Chaparral | | G3 S3.2 | | *CTT37840CA |
| *Ceanothus megacarpus* | | | 37.201.01 | |
| *Ceanothus megacarpus - Adenostoma fasciculatum* | | | 37.201.02 | |
| *Ceanothus megacarpus - Adenostoma sparsifolium* | | | 37.201.04 | |
| *Ceanothus megacarpus - Cercocarpus montanus* | | | 37.201.05 | |
| *Ceanothus megacarpus - Malosma laurina* | | | 37.201.06 | |
| *Ceanothus megacarpus - Prunus ilicifolia* | | | 37.201.09 | |
| *Ceanothus megacarpus - Rhamnus ilicifolia* | | | 37.203.01 | |
| *Ceanothus megacarpus - Salvia mellifera* | | | 37.201.08 | |
| *Eriodictyon californicum* (California yerba santa scrub) Alliance | California yerba santa scrub | G4 S4 | 37.080.00 | |
| *Eriodictyon californicum / herbaceous* | | | 35.080.01 | |
| *Eriodictyon crassifolium* (Thick leaf yerba santa scrub) Provisional Alliance | Thick leaf yerba santa scrub | G3 S3 | *37.090.00 | |
| *Arctostaphylos (crustacea, tomentosa)* (Brittle leaf-Woolly leaf manzanita chaparral) Alliance | Brittle leaf-Woolly leaf manzanita chaparral | G2 S2 | *37.308.00 | |
| Northern Maritime Chaparral | | G1 S1.2 | | *CTT37C10CA |
| Central Maritime Chaparral | | G2 S2.2 | | *CTT37C20CA |
| Island Maritime Chaparral | | G3 S3.1 | | *CTT37700CA |
| *Arctostaphylos canescens* (Hoary manzanita chaparral) Provisional Alliance | Hoary manzanita chaparral | G3? S3? | *37.311.00 | |
| *Arctostaphylos canescens - Arctostaphylos glandulosa - Adenostoma fasciculatum* | | | *37.311.01 | |
| *Arctostaphylos crustacea* | | | *37.308.03 | |
| *Arctostaphylos crustacea - Adenostoma fasciculatum - Ceanothus (cuneatus, papillosus)* | | | *37.308.04 | |
| *Arctostaphylos crustacea - Arctostaphylos gabilanensis* | | | *37.308.05 | |
| *Arctostaphylos hooveri* (Hoover's manzanita chaparral) Alliance | Hoover's manzanita chaparral | G2 S2 | *37.312.00 | |
| *Arctostaphylos hooveri* | | | *37.312.01 | |
| *Arctostaphylos montereyensis* (Monterey manzanita chaparral) Provisional Alliance | Monterey manzanita chaparral | G1 S1 | *37.314.00 | |
| *Arctostaphylos morroensis* (Morro manzanita chaparral) Alliance | Morro manzanita chaparral | G1 S1 | *37.315.00 | |
| *Arctostaphylos myrtifolia* (Ione manzanita chaparral) Alliance | Ione manzanita chaparral | G1 S1 | *37.304.00 | |
| Ione Chaparral | | G1 S1.1 | | *CTT37D00CA |
| *Arctostaphylos myrtifolia* | | | *37.304.01 | |
| *Arctostaphylos (nummularia, sensitiva)* (Glossy leaf manzanita chaparral) Alliance | Glossy leaf manzanita chaparral | G2 S2 | *37.306.00 | |
| *Arctostaphylos pajaroensis* (Pajaro manzanita chaparral) Alliance | Pajaro manzanita chaparral | G1 S1 | *37.316.00 | |
| *Arctostaphylos pajaroensis* | | | *37.316.01 | |
| *Arctostaphylos pumila* (Sandmat manzanita chaparral) Provisional Alliance | Sandmat manzanita chaparral | G1 S1 | *37.318.00 | |
| *Arctostaphylos sensitiva - Vaccinium ovatum - Chrysolepis chrysophylla var. minor* | | | *37.306.01 | |
| *Arctostaphylos sensitiva - Arctostaphylos glandulosa* | | | *37.306.02 | |
| *Arctostaphylos (purissima, rudis)* (Burton Mesa chaparral) Provisional Alliance | Burton Mesa chaparral | G1 S1 | *37.322.00 | |
| *Arctostaphylos silvicola* (Silverleaf manzanita chaparral) Provisional Alliance | Silverleaf manzanita chaparral | G1 S1 | *37.320.00 | |
| *Arctostaphylos stanfordiana* (Stanford manzanita chaparral) Provisional Alliance | Stanford manzanita chaparral | G3 S3? | *37.319.00 | |
| *Ceanothus papillosus* (Wart leaf ceanothus chaparral) Alliance | Wart leaf ceanothus chaparral | G3 S3 | *37.215.00 | |
| *Ceanothus papillosus - Adenostoma fasciculata* | | | *37.215.01 | |
| *Ceanothus verrucosus* (Wart-stemmed ceanothus chaparral) Provisional Alliance | Wart-stemmed ceanothus chaparral | G2 S2 | *37.216.00 | |
| *Malosma laurina* (Laurel sumac scrub) Alliance | Laurel sumac scrub | G4 S4 | 45.455.00 | |
| *Malosma laurina* | | | 45.455.01 | |

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| *Malosma laurina - Eriogonum cinereum* | | | 45.455.03 | |
| *Malosma laurina - Eriogonum fasciculatum* | | | 45.455.04 | |
| *Malosma laurina - Eriogonum fasciculatum - Salvia apiana* | | | 45.455.06 | |
| *Malosma laurina - Eriogonum fasciculatum - Salvia mellifera* | | | 45.455.07 | |
| *Malosma laurina - Rhus ovata - Ceanothus megacarpus* | | | 45.455.08 | |
| *Malosma laurina - Salvia mellifera* | | | 45.455.09 | |
| *Malosma laurina - Tetracoccus dioicus* | | | 45.455.10 | |
| *Quercus pacifica* (Island scrub oak chaparral) Alliance | Island scrub oak chaparral | G3 S3 | *37.416.00 | |
| *Quercus pacifica* | | | *37.416.01 | |
| *Rhus integrifolia* (Lemonade berry scrub) Alliance | Lemonade berry scrub | G3 S3 | *37.803.00 | |
| *Rhus integrifolia* | | | *37.803.01 | |
| *Rhus integrifolia - Adenostoma fasciculatum - Artemisia californica* | | | *37.803.02 | |
| *Rhus integrifolia - Artemisia californica - Eriogonum cinereum* | | | *37.803.03 | |
| *Rhus integrifolia - Opuntia spp - Eriogonum cinereum* | | | *37.803.04 | |
| *Rhus integrifolia - Salvia mellifera - Artemisia californica* | | | *37.803.05 | |
| *Ceanothus spinosus* (Greenbark ceanothus chaparral) Alliance | Greenbark ceanothus chaparral | G4 S4 | 37.214.00 | |
| *Ceanothus spinosus* | | | 37.214.01 | |
| *Ceanothus spinosus - Ceanothus megacarpus* | | | 37.214.02 | |
| *Cercocarpus montanus* (Birch leaf mountain mahogany chaparral) Alliance | Birch leaf mountain mahogany chaparral | G5 S4 | 76.100.00 | |
| *Cercocarpus montanus - Adenostoma fasciculatum* | | | 76.100.06 | |
| *Cercocarpus montanus - Adenostoma fasciculatum - Diplacus aurantiacus* | | | 76.100.17 | |
| *Cercocarpus montanus - Arctostaphylos glauca* | | | 76.100.04 | |
| *Cercocarpus montanus - Ceanothus cuneatus* | | | 76.100.16 | |
| *Cercocarpus montanus - Ceanothus cuneatus - Fraxinus dipetala* | | | 76.100.15 | |
| *Cercocarpus montanus - Ceanothus cuneatus - Quercus john-tuckeri* | | | 76.100.09 | |
| *Cercocarpus montanus - Ceanothus spinosus* | | | 76.100.05 | |
| *Cercocapus montanus - Eriogonum fasciculatum* | | | 37.600.01 | |
| *Cercocapus montanus - Eriogonum fasciculatum - Eriogonum wrightii* | | | 37.600.02 | |
| *Cercocarpus montanus - Fremontodendron californicum* | | | 76.100.10 | |
| *Cercocarpus montanus - Juniperus californica* | | | 76.100.11 | |
| *Cercocarpus montanus - Malosma laurina - Artemisia californica* | | | 76.100.12 | |
| *Cercocarpus montanus - Prunus ilicifolia* | | | 76.100.14 | |
| *Cercocarpus montanus - Prunus ilicifolia - Adenostoma sparsifolium* | | | 76.100.13 | |
| *Cercocarpus montanus var. glaber* | | | 76.100.03 | |
| *Cercocarpus montanus var. macrourus* | | | 37.610.01 | |
| *Cercocarpus montanus var. minutiflorus* | | | 37.610.02 | |
| *Heteromeles arbutifolia* (Toyon chaparral) Alliance | Toyon chaparral | G5 S3 | *37.911.00 | |
| *Heteromeles arbutifolia - Artemisia californica* | | | *37.911.02 | |
| *Heteromeles arbutifolia - Malosma laurina* | | | *37.911.03 | |
| *Heteromeles arbutifolia - Quercus berberidifolia - Cercocarpus montanus - Fraxinus dipetala* | | | *37.911.04 | |
| *Heteromeles arbutifolia / serpentine* | | | *37.911.01 | |
| *Prunus ilicifolia* (Holly leaf cherry chaparral) Alliance | Holly leaf cherry chaparral | G3 S3 (some associations are of high priority for | *37.910.00 | |
| Island Cherry Forest | | G2 S2.1 | | *CTT81810CA |
| Mainland Cherry Forest | | G1 S1.1 | | *CTT81820CA |
| *Prunus ilicifolia ssp. ilicifolia* | | | *37.910.03 | |
| *Prunus ilicifolia ssp. ilicifolia - Ceanothus cuneatus* | | | *37.910.05 | |
| *Prunus ilicifolia ssp. ilicifolia - Fraxinus dipetala* | | | *37.910.06 | |
| *Prunus ilicifolia ssp. ilicifolia - Heteromeles arbutifolia* | | | *37.910.02 | |
| *Prunus ilicifolia ssp. ilicifolia - Toxicodendron diversilobum / grass* | | | *37.910.07 | |
| *Prunus ilicifolia ssp. Ilicifolia / Sanicula crassicaulis* | | | *37.910.01 | |
| *Prunus ilicifolia ssp. lyonii* | | | *37.910.04 | |
| *Quercus berberidifolia* (Scrub oak chaparral) Alliance | Scrub oak chaparral | G4 S4 (some associations are of high priority for | 37.407.00 | |
| Scrub Oak Chaparral | | G3 S3.3 | | *CTT37900CA |
| *Quercus berberidifolia* | | | 37.407.02 | |
| *Quercus berberidifolia - Arctostaphylos glauca* | | | 37.406.01 | |
| *Quercus berberidifolia - Ceanothus cuneatus* | | | 37.406.05 | |
| *Quercus berberidifolia - Ceanothus integerrimus* | | | 37.406.02 | |
| *Quercus berberidifolia - Ceanothus leucodermis* | | | 37.407.05 | |
| *Quercus berberidifolia - Ceanothus oliganthus* | | | *37.406.03 | |
| *Quercus berberidifolia - Ceanothus spinosus* | | | 37.407.07 | |
| *Quercus berberidifolia - Ceanothus tomentosus* | | | 37.406.06 | |
| *Quercus berberidifolia - Cercocarpus montanus* | | | 37.407.06 | |
| *Quercus berberidifolia - Fraxinus dipetela - Heteromeles arbutifolia* | | | 37.407.09 | |
| *Quercus berberidifolia - Heteromeles arbutifolia* | | | 37.407.04 | |
| *Quercus berberidifolia - southern mixed chaparral* | | | 37.407.08 | |
| *Quercus berberidifolia / Aesculus californica* | | | 37.407.01 | |
| *Quercus berberidifolia - Adenostoma fasciculatum* (Scrub oak - chamise chaparral) Alliance | Scrub oak - chamise chaparral | G4 S4 | 37.409.00 | |
| *Quercus berberidifolia - Adenostoma fasciculatum* | | | 37.409.03 | |
| *Quercus berberidifolia - Adenostoma fasciculatum - Arctostaphylos glandulosa* | | | 37.407.03 | |
| *Quercus berberidifolia - Adenostoma fasciculatum - Ceanothus crassifolius* | | | 37.409.01 | |

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| *Quercus berberidifolia - Adenostoma fasciculatum - Ceanothus greggii* | | | 37.409.02 | |
| *Arctostaphylos bakeri* (Stands of Baker manzanita) Special Stands | Stands of Baker manzanita | G1 S1 | *37.317.00 | |
| *Arctostaphylos montana* (Mount Tamalpais manzanita chaparral) Alliance | Mount Tamalpais manzanita chaparral | G2 S2 | *37.307.00 | |
| *Arctostaphylos montana* | | | *37.307.01 | |
| *Arctostaphylos montana - Adenostoma fasciculatum* | | | *37.307.02 | |
| *Quercus durata* (Leather oak chaparral) Alliance | Leather oak chaparral | G4 S4 (some associations are of high priority for | 37.405.00 | |
| Mixed Serpentine Chaparral | | G2 S2.1 | | *CTT37610CA |
| Leather Oak Chaparral | | G3 S3.2 | | *CTT37620CA |
| *Quercus durata* | | | 37.405.02 | |
| *Quercus durata - Adenostoma fasciculatum - Quercus wislizeni* | | | 37.405.03 | |
| *Quercus durata - Adenostoma fasciculatum / Salvia sonomensis* | | | *37.405.14 | |
| *Quercus durata - Arctostaphylos glandulosa* | | | *37.405.01 | |
| *Quercus durata - Arctostaphylos glauca - Artemisia californica / Grass* | | | *37.405.06 | |
| *Quercus durata - Arctostaphylos glauca - Garrya congdonii / Melica torreyana* | | | *37.405.07 | |
| *Quercus durata - Arctostaphylos glauca / Pinus sabiniana* | | | 37.405.04 | |
| *Quercus durata - Arctostaphylos pungens / Pinus sabiniana* | | | *37.405.08 | |
| *Quercus durata - Cercocarpus montanus* | | | 37.405.10 | |
| *Quercus durata - Frangula californica - Arctostaphylos glauca* | | | *37.405.12 | |
| *Quercus durata - Heteromeles arbutifolia - Umbellularia californica* | | | 37.405.11 | |
| *Quercus durata / Allium falcifolium - Streptanthus batrachopus* | | | *37.405.13 | |
| *Quercus durata / Pinus sabiniana* | | | 37.405.09 | |
| *Arctostaphylos glandulosa* (Eastwood manzanita chaparral) Alliance | Eastwood manzanita chaparral | G4 S4 (some associations are of high priority for | 37.302.00 | |
| *Arctostaphylos glandulosa* | | | 37.302.01 | |
| *Arctostaphylos glandulosa - Adenostoma fasciculatum* | | | 37.106.13 | |
| *Arctostaphylos glandulosa - Adenostoma fasciculatum - Arctostaphylos glauca* | | | 37.106.12 | |
| *Arctostaphylos glandulosa - Adenostoma fasciculatum - Ceanothus crassifolius* | | | 37.106.04 | |
| *Arctostaphylos glandulosa - Adenostoma fasciculatum - Ceanothus cuneatus* | | | 37.106.07 | |
| *Arctostaphylos glandulosa - Adenostoma fasciculatum - Ceanothus leucodermis* | | | 37.106.02 | |
| *Arctostaphylos glandulosa - Adenostoma fasciculatum - Cercocarpus montanus* | | | 37.106.01 | |
| *Arctostaphylos glandulosa - Adenostoma fasciculatum - Quercus berberidifolia* | | | 37.106.11 | |
| *Arctostaphylos glandulosa - Adenostoma fasciculatum - Quercus wislizeni* | | | 37.106.10 | |
| *Arctostaphylos glandulosa - Adenostoma fasciculatum / mafic soils* | | | *37.106.05 | |
| *Arctostaphylos glandulosa - Adenostoma fasciculatum -Ceanothus greggii* | | | 37.106.03 | |
| *Arctostaphylos glandulosa - Arctostaphylos pringlei* | | | *37.302.07 | |
| *Arctostaphylos glandulosa - Cercocarpus montanus* | | | 37.302.03 | |
| *Arctostaphylos glandulosa - Quercus wislizeni* | | | 37.302.04 | |
| *Arctostaphylos glandulosa ssp. adamsii* | | | *37.302.02 | |
| *Arctostaphylos pringlei ssp. drupacea* (Pink-bract manzanita chaparral) Alliance | Pink-bract manzanita chaparral | G3 S3 | *37.310.00 | |
| *Arctostaphylos pringlei ssp. drupacea* | | | *37.310.02 | |
| *Arctostaphylos pringlei ssp. drupacea - Arctostaphylos pungens* | | | *37.310.01 | |
| *Ceanothus leucodermis* (Chaparral white thorn chaparral) Alliance | Chaparral white thorn chaparral | G4 S4 | 37.205.00 | |
| Whitethorn Chaparral | | G4 S4 | | *CTT37532CA |
| *Ceanothus leucodermis* | | | 37.205.01 | |
| *Ceanothus leucodermis / Toxicodendron diversilobum* | | | 37.205.02 | |
| *Ceanothus oliganthus* (Hairy leaf ceanothus chaparral) Alliance | Hairy leaf ceanothus chaparral | G3 S3 | *37.207.00 | |
| *Ceanothus oliganthus* | | | *37.207.01 | |
| *Ceanothus oliganthus - Adenostoma fasciculatum* | | | *37.207.02 | |
| *Ceanothus oliganthus - Adenostoma fasciculatum - Xylococcus bicolor* | | | *37.207.03 | |
| *Ceanothus oliganthus - Adenostoma sparsifolium* | | | *37.207.04 | |
| *Ceanothus oliganthus - Arctostaphylos glandulosa* | | | *37.207.05 | |
| *Ceanothus oliganthus - Eriodictyon crassifolium* | | | *37.207.06 | |
| *Ceanothus oliganthus - Heteromeles arbutifolia - Rhus ovata* | | | *37.207.07 | |
| *Ceanothus oliganthus - Quercus berberidifolia* | | | *37.207.08 | |
| *Quercus chrysolepis* (Canyon live oak chaparral) Alliance | Canyon live oak chaparral | G3 S3 | *37.413.00 | |
| *Quercus chrysolepis* | | | *37.413.01 | |
| *Quercus wislizeni* (Interior live oak chaparral) Alliance | Interior live oak chaparral | G4 S4 | 37.420.00 | |
| Interior Live Oak Chaparral | | G3 S3.3 | | *CTT37A00CA |
| *Quercus wislizen - Cercocarpus montanus - Arctostaphylos glandulosa* | | | 37.420.05 | |
| *Quercus wislizeni* | | | 37.420.01 | |
| *Quercus wislizeni - Arctostaphylos glandulosa* | | | 37.420.02 | |
| *Quercus wislizeni - Ceanothus leucodermis* | | | 37.403.01 | |
| *Quercus wislizeni - Ceanothus leucodermis - Arctostaphylos glandulosa* | | | 37.403.02 | |
| *Quercus wislizeni - Ceanothus leucodermis / Pinus coulteri* | | | 37.403.03 | |
| *Quercus wislizeni - Cercocarpus montanus* | | | 37.420.03 | |
| *Quercus wislizeni - Cercocarpus montanus - Adenostoma sparsifolium* | | | 37.420.04 | |
| *Quercus wislizeni - Quercus berberidifolia* | | | 37.404.01 | |
| *Quercus wislizeni - Quercus berberidifolia - Fraxinus dipetala* | | | 37.404.02 | |
| *Quercus wislizeni - Quercus chrysolepis shrub* | | | 37.402.01 | |
| Riversidian Upland Sage Scrub | | G3 S3.1 | | *CTT32710CA |
| Riversidian Alluvial Fan Sage Scrub | | G1 S1.1 | | *CTT32720CA |

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| Riversidian Desert Scrub | | G3 S3.1 | *CTT32730CA |
| Diegan Coastal Sage Scrub | | G3 S3.1 | *CTT32500CA |
| Venturan Coastal Sage Scrub | | G3 S3.1 | *CTT32300CA |
| Diablan Sage Scrub | | G3 S3.3 | *CTT32600CA |
| *Artemisia californica* (California sagebrush scrub) Alliance | California sagebrush scrub | G5 S5 | 32.010.00 |
| *Artemisia californica* | | | 32.010.01 |
| *Artemisia californica - Malosma laurina* | | | 45.455.02 |
| *Artemisia californica - Baccharis pilularis / Leymus condensatus* | | | 32.010.15 |
| *Artemisia californica - Ceanothus ferrisiae* | | | 32.010.08 |
| *Artemisia californica - Diplacus aurantiacus* | | | 32.010.11 |
| *Artemisia californica - Eriogonum cinereum* | | | 32.010.07 |
| *Artemisia californica - Keckiella cordifolia* | | | 32.010.03 |
| *Artemisia californica - Lepidospartum squamatum* | | | 32.010.09 |
| *Artemisia californica - Lotus scoparius* | | | 32.010.02 |
| *Artemisia californica - Malosma laurina* | | | 32.010.10 |
| *Artemisia californica - Salvia leucophylla* | | | 32.010.04 |
| *Artemisia californica / Amsinckia menziesii* | | | 32.010.12 |
| *Artemisia californica / Eschscholzia californica* | | | 32.010.13 |
| *Artemisia californica / Leymus condensatus* | | | 32.010.14 |
| *Artemisia californica - Eriogonum fasciculatum* (California sagebrush - California buckwheat scrub) Alliance | California sagebrush - California buckwheat | G4 S4 | 32.110.00 |
| *Artemisia californica - Eriogonum fasciculatum* | | | 32.110.05 |
| *Artemisia californica - Eriogonum fasciculatum - Ephedra californica* | | | 32.110.07 |
| *Artemisia californica - Eriogonum fasciculatum - Malosma laurina* | | | 32.110.06 |
| *Artemisia californica - Eriogonum fasciculatum - Rhus ovata* | | | 32.110.01 |
| *Artemisia californica - Eriogonum fasciculatum - Salvia apiana* | | | 32.110.02 |
| *Artemisia californica - Eriogonum fasciculatum - Salvia leucophylla* | | | 32.110.03 |
| *Artemisia californica - Eriogonum fasciculatum - Salvia mellifera* | | | 32.110.04 |
| *Artemisia californica - Salvia mellifera* (California sagebrush - black sage scrub) Alliance | California sagebrush - black sage scrub | G4 S4 | 32.120.00 |
| *Artemisia californica - Salvia mellifera* | | | 32.120.01 |
| *Artemisia californica - Salvia mellifera - Baccharis sarothroides* | | | 32.120.03 |
| *Diplacus aurantiacus* (Bush monkeyflower scrub) Alliance | Bush monkeyflower scrub | G3 S3? | *32.082.00 |
| *Diplacus aurantiacus* | | | *32.082.01 |
| *Encelia californica* (California brittle bush scrub) Alliance | California brittle bush scrub | G4 S3 | *32.050.00 |
| *Encelia californica* | | | *32.050.02 |
| *Encelia californica - Artemisia californica* | | | *32.050.01 |
| *Encelia californica - Artemisia californica - Salvia mellifera - Baccharis pilularis* | | | *32.050.03 |
| *Encelia californica - Eriogonum cinereum* | | | *32.050.04 |
| *Encelia californica - Malosma laurina - Salvia mellifera* | | | *32.050.05 |
| *Encelia californica - Rhus integrifolia* | | | *32.050.06 |
| *Eriogonum cinereum* (Ashy buckwheat scrub) Alliance | Ashy buckwheat scrub | G3 S3 | *32.035.00 |
| *Eriogonum cinereum* | | | *32.035.01 |
| *Eriogonum heermannii* (Heermann's buckwheat patches) Provisional Alliance | Heermann's buckwheat patches | G2 S2? | *32.035.00 |
| *Eriogonum fasciculatum* (California buckwheat scrub) Alliance | California buckwheat scrub | G5 S5 (some associations are of high priority for | 32.040.00 |
| *Eriogonum fasciculatum* | | | 32.040.02 |
| *Eriogonum fasciculatum - (Lepidospartum squamatum) alluvial fan* | | | *32.070.01 |
| *Eriogonum fasciculatum - Ambrosia dumosa* | | | 32.040.05 |
| *Eriogonum fasciculatum - Artemisia tridentata* | | | *32.040.03 |
| *Eriogonum fasciculatum - Bebbia juncea* | | | 32.040.08 |
| *Eriogonum fasciculatum - Cylindropuntia californica* | | | 32.040.10 |
| *Eriogonum fasciculatum - Encelia farinosa* | | | 32.040.18 |
| *Eriogonum fasciculatum - Gutierrezia sarothrae* | | | 32.040.09 |
| *Eriogonum fasciculatum - Lotus scoparius* | | | 32.040.19 |
| *Eriogonum fasciculatum - Rhus ovata* | | | 32.040.11 |
| *Eriogonum fasciculatum - Salazaria mexicana* | | | 32.040.06 |
| *Eriogonum fasciculatum - Salvia mellifera* | | | 32.040.17 |
| *Eriogonum fasciculatum - Salvia mellifera - Malosma laurina* | | | 32.040.07 |
| *Eriogonum fasciculatum - Scrophularia californica - Phacelia ramosissima* | | | 32.040.01 |
| *Eriogonum fasciculatum - Simmondsia chinensis - Cylindropuntia californica* | | | 32.040.12 |
| *Eriogonum fasciculatum var. foliolosum - Hesperoyucca whipplei* | | | 32.040.16 |
| *Eriogonum fasciculatum var. foliolosum - Juniperus californica* | | | 32.040.13 |
| *Eriogonum fasciculatum var. polifolium / Eriastrum pluriflorum* | | | 32.040.15 |
| *Eriogonum fasciculatum - Salvia apiana* (California buckwheat - white sage scrub) Alliance | California buckwheat - white sage scrub | G4 S4 (some associations are of high priority for | 32.100.00 |
| *Eriogonum fasciculatum - Salvia apiana* | | | *32.100.01 |
| *Deinandra clementina - Eriogonum giganteum* (Island buckwheat - Island tar plant scrub) Provisional Alliance | Island buckwheat - Island tar plant scrub | G3? S3? | *43.110.00 |
| *Eriogonum wrightii* (Wright's buckwheat patches) Alliance | Wright's buckwheat patches | G3 S3 | *32.041.00 |
| *Eriogonum wrightii - Eriophyllum confertiflorum / Monardella antonina ssp. benitensis* | | | *32.041.01 |
| *Eriogonum wrightii - Juniperus californica* | | | *32.041.02 |
| *Eriogonum wrightii - Lessingia filaginifolia* | | | *32.041.03 |
| *Keckiella antirrhinoides* (Bush penstemon scrub) Alliance | Bush penstemon scrub | G3 S3 | *32.065.00 |
| *Keckellia antirrhinoides* | | | *32.065.01 |

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| *Keckellia antirrhinoides - Artemisia californica* | | | *32.065.02 | |
| *Keckellia antirhinoides - Eriogonum fasciculatum* | | | *32.065.03 | |
| *Keckiella antirrhinoides - Mixed Chaparral* | | | *32.065.04 | |
| *Salvia apiana* (White sage scrub) Alliance | White sage scrub | G4 S3 | *32.030.00 | |
| *Salvia apiana - Artemisia californica* | | | *32.030.01 | |
| *Salvia apiana - Encelia farinosa* | | | *32.030.02 | |
| *Salvia apiana - Hesperoyucca whipplei* | | | *32.030.03 | |
| *Salvia leucophylla* (Purple sage scrub) Alliance | Purple sage scrub | G4 S4 | 32.090.00 | |
| *Salvia leucophylla* | | | 32.090.03 | |
| *Salvia leucophylla - Artemisia californica* | | | 32.090.01 | |
| *Salvia leucophylla - Artemisia californica - Eriogonum cinereum / Nassella spp.* | | | 32.090.04 | |
| *Salvia leucophylla - Eriogonum cinereum / annual herb* | | | 32.090.05 | |
| *Salvia leucophylla - Malosma laurina* | | | 32.090.02 | |
| *Salvia mellifera* (Black sage scrub) Alliance | Black sage scrub | G4 S4 (some associations are of high priority for | 32.020.00 | |
| *Salvia mellifera* | | | 32.020.03 | |
| *Salvia mellifera - Encelia californica* | | | 32.020.04 | |
| *Salvia mellifera - Eriogonum cinereum* | | | *32.020.08 | |
| *Salvia mellifera - Eriogonum fasciculatum / Bromus rubens* | | | 32.020.06 | |
| *Salvia mellifera - Eriogonum fasciculatum var. foliolosum - Eriodictyon tomentosum* | | | 32.020.07 | |
| *Salvia mellifera - Lotus scoparius* | | | 32.020.09 | |
| *Salvia mellifera - Malosma laurina* | | | 32.020.01 | |
| *Salvia mellifera - Opuntia littoralis* | | | *32.020.05 | |
| *Salvia mellifera - Rhus ovata* | | | 32.020.11 | |
| *Dendromecon rigida* (Bush poppy scrub) Alliance | Bush poppy scrub | G4 S4 | 37.750.00 | |
| *Dendromecon rigida* | | | 37.750.01 | |
| Upper Sonoran Subshrub Scrub | | G4 S3.2 | | CTT39000CA |
| *Ericameria linearifolia* (Narrowleaf goldenbush scrub) Provisional Alliance | Narrowleaf goldenbush scrub | G3 S3? | *38.125.00 | |
| *Ericameria palmeri* (Palmer's goldenbush scrub) Provisional Alliance | Palmer's goldenbush scrub | G3 S3? | *38.130.00 | |
| *Gutierrezia californica* (California match weed patches) Provisional Alliance | California match weed patches | G3? S3? | *32.042.00 | |
| *Gutierrezia californica / Annual - perennial grass - herb* | | | *32.042.01 | |
| *Hazardia squarrosa* (Sawtooth golden bush scrub) Alliance | Sawtooth golden bush scrub | G3 S3 | *32.055.00 | |
| *Hazardia squarrosa - Artemisia californica* | | | *32.055.02 | |
| *Hazardia squarrosa / Nassella pulchra - Deinandra fasciculata* | | | *32.055.01 | |
| *Isocoma menziesii* (Menzies's golden bush scrub) Alliance | Menzies's golden bush scrub | G4? S4? (some associations are of high priority for | 32.044.00 | |
| *Isocoma menziesii - Lupinus albifrons* | | | 32.044.03 | |
| *Isocoma menziesii / Astragalus miguelensis - Atriplex californica - Lasthenia californica* | | | *32.044.01 | |
| *Isocoma menziesii / Distichlis spicata - Paraphalis incurva* | | | 32.044.02 | |
| *Lotus scoparius* (Deer weed scrub) Alliance | Deer weed scrub | G5 S5 | 52.240.00 | |
| *Lotus scoparius* | | | 52.240.01 | |
| *Lupinus albifrons* (Silver bush lupine scrub) Alliance | Silver bush lupine scrub | G4 S4 | 32.081.00 | |
| *Lupinus albifrons* | | | 32.081.01 | |
| *Lupinus albifrons - Senecio flaccidus var. douglasii* | | | 32.081.03 | |
| *Lupinus albifrons coastal* | | | 32.081.02 | |
| *Malacothamnus fasciculatus* (Bush mallow scrub) Alliance | Bush mallow scrub | G4 S4 | 45.450.00 | |
| *Malacothamnus fasciculatus* | | | 45.450.01 | |
| *Malacothamnus fasciculatus - Ceanothus megacarpus* | | | 45.450.02 | |
| *Malacothamnus fasciculatus - Ceanothus spinosus* | | | 45.450.03 | |
| *Malacothamnus fasciculatus - Malosma laurina* | | | 45.450.04 | |
| *Malacothamnus fasciculatus - Salvia leucophylla* | | | 45.450.05 | |
| *Malacothamnus fasciculatus - Salvia mellifera* | | | 45.450.06 | |
| *Broom (Cytisus scoparius and Others)* (Broom patches) Semi-natural Stands | Broom patches | | 32.180.00 | |
| *Genista monspessulana* | | | 32.180.01 | |
| *Spartium junceum* | | | *32.180.02 | |
| Native Grassland | | G3 S3.1 | | *CTT42100CA |
| Serpentine Bunchgrass | | G2 S2.2 | | *CTT42130CA |
| *Ambrosia psilostachya* (Western ragweed meadows) Provisional Alliance | Western ragweed meadows | G4 S4? | 33.065.00 | |
| *Amsinckia (menziesii, tessellata)* (Fiddleneck fields) Alliance | Fiddleneck fields | G4 S4 | 42.110.00 | |
| *Amsinckia menziesii - Erodium spp.* | | | 42.110.01 | |
| *Amsinckia menziesii - Vulpia bromoides - Plagiobothrys canescens* | | | 42.110.02 | |
| *Artemisia dracunculus* (Wild tarragon patches) Alliance | Wild tarragon patches | G4 S4 | 35.160.00 | |
| *Artemisia dracunculus* | | | 35.160.01 | |
| *Artemisia dracunculus - Pseudognaphalium canescens* | | | 35.160.02 | |
| *Eschscholzia (californica)* (California poppy fields) Alliance | California poppy fields | G4 S4 | 43.200.00 | |
| Wildflower Field | | G2 S2.2 | | *CTT42300CA |
| *Eschscholzia californica* | | | 43.200.01 | |
| *Lasthenia californica - Plantago erecta - Vulpia microstachys* (California goldfields - Dwarf plantain - Six-weeks fescue flo | California goldfields - Dwarf plantain - Six-w | G4 S4 (some associations are of high priority for | 44.108.00 | |
| *Lasthenia californica* | | | 44.109.03 | |
| *Lasthenia californica - Atriplex coronata var. notatior* | | | *44.109.01 | |
| *Lasthenia californica - Lupinus bicolor - Layia platyglossa - Bromus spp.* | | | *44.109.04 | |
| *Lasthenia californica - Plantago erecta - Hesperevax sparsiflora* | | | *44.108.01 | |

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|---|---|---|---|---|
| *Lasthenia ferrisiae - Lasthenia conjugens* | | | *52.500.05 | |
| *Plantago erecta - Lolium perenne lichen-rocky* | | | 44.108.02 | |
| *Vulpia microstachys - Elymus elymoides - Achnatherum lemmonii* | | | 44.108.08 | |
| *Vulpia microstachys - Lasthenia californica - Agrostis elliottiana* | | | 44.109.05 | |
| *Vulpia microstachys - Mimulus guttatus - Pentagramma triangularis* | | | 44.108.05 | |
| *Vulpia microstachys - Navarretia tagetina* | | | 44.108.09 | |
| *Vulpia microstachys - Parvisedum pumilum - Lasthenia californica* | | | 44.109.06 | |
| *Vulpia microstachys - Plantago erecta* | | | 44.108.04 | |
| *Vulpia microstachys - Plantago erecta - Calycadenia (truncata, multiglandulosa)* | | | 44.108.03 | |
| *Vulpia microstachys - Selaginella hansenii* | | | 44.108.10 | |
| *Vulpia microstachys - Selaginella hansenii - Lupinus nanus* | | | 44.108.11 | |
| *Vulpia microstachys - Selaginella hansenii - Lupinus spectabilis* | | | 44.108.07 | |
| *Lotus purshianus* (Spanish clover fields) Provisional Alliance | Spanish clover fields | G4? S4? | 52.230.00 | |
| *Plagiobothrys nothofulvus* (Popcorn flower fields) Alliance | Popcorn flower fields | G4 S4 | 43.300.00 | |
| *Plagiobothrys nothofulvus - Daucus pusillus - Bromus hordeaceus* | | | 43.300.01 | |
| *Leymus condensatus* (Giant wild rye grassland) Alliance | Giant wild rye grassland | G3 S3 | *41.265.00 | |
| *Leymus condensatus* | | | *41.265.01 | |
| *Melica torreyana* (Torrey's melic grass patches) Provisional Alliance | Torrey's melic grass patches | G2 S2? | *41.275.00 | |
| *Melica torreyana* | | | *41.275.01 | |
| *Nassella cernua* (Nodding needle grass grassland) Provisional Alliance | Nodding needle grass grassland | G4 S3? | *41.140.00 | |
| *Nassella lepida* (Foothill needle grass grassland) Provisional Alliance | Foothill needle grass grassland | G3? S3? | *41.110.00 | |
| *Nassella pulchra* (Purple needle grass grassland) Alliance | Purple needle grass grassland | G4 S3? | *41.150.00 | |
| Valley Needlegrass Grassland | | G3 S3.1 | | *CTT42110CA |
| *Nassella pulchra* | | | *41.150.04 | |
| *Nassella pulchra - Avena fatua* | | | *41.150.02 | |
| *Nassella pulchra - Avena spp. - Bromus spp.* | | | *41.150.05 | |
| *Nassella pulchra - Distichlis spicata - Bromus spp.* | | | *41.150.10 | |
| *Nassella pulchra - Erodium spp. - Avena barbata* | | | *41.150.06 | |
| *Nassella pulchra - Leontodon taraxicoides* | | | *41.150.11 | |
| *Nassella pulchra - Lolium perenne (-Trifolium spp.)* | | | *41.150.01 | |
| *Nassella pulchra - Lolium perenne - Astragalus gambelianus - Lepidium nitidum* | | | *41.150.12 | |
| *Nassella pulchra - Lolium perenne - Calystegia collina* | | | *41.150.13 | |
| *Nassella pulchra - Melica californica - annual grass* | | | *41.150.09 | |
| *Nassella pulchra - Sanicula bipinnatifida* | | | *41.150.03 | |
| *Nassella pulchra / Baccharis pilularis* | | | *41.150.14 | |
| *Nassella pulchra / Hazardia squarrosa* | | | *41.150.07 | |
| *Aegilops triuncialis* (Barbed goatgrass patches) Provisional Semi-natural Stands | Barbed goatgrass patches | | 42.003.00 | Invasive sp ranking: Cal-IPC High |
| *Aegilops triuncialis - Hemizonia congesta* | | | 42.003.01 | |
| *Avena (barbata, fatua)* (Wild oats grasslands) Semi-natural Stands | Wild oats grasslands | | 44.150.00 | |
| *Avena barbata* | | | 44.150.01 | |
| *Avena barbata - Avena fatua* | | | 44.150.02 | |
| *Avena barbata - Bromus hordeaceus* | | | 44.150.03 | |
| *Avena fatua* | | | 44.150.04 | |
| *Brassica nigra and other mustards* (Upland mustards) Semi-natural Stands | Upland mustards | | 42.011.00 | |
| *Brassica nigra* | | | 42.011.01 | |
| *Brassica nigra - Bromus diandrus* | | | 42.011.02 | |
| *Brassicas tournefortii / Ambrosia dumosa* | | | 42.011.03 | |
| *Raphanus sativus* | | | 42.011.04 | |
| Non Native Grassland | | G4 S4 | | CTT42200CA |
| *Bromus (diandrus, hordeaceus) - Brachypodium distachyon* (Annual brome grasslands) Semi-natural Stands | Annual brome grasslands | | 42.026.00 | |
| *Brachypodium distachyon* | | | 42.040.03 | |
| *Bromus diandrus* | | | 42.026.21 | |
| *Bromus diandrus - Avena spp.* | | | 42.026.22 | |
| *Bromus diandrus - Mixed herbs* | | | 42.026.11 | |
| *Bromus hordeaceus - Aira caryophyllea* | | | 42.026.20 | |
| *Bromus hordeaceus - Amsinckia menziesii - Hordeum murinum* | | | 42.026.23 | |
| *Bromus hordeaceus - Bromus tectorum* | | | 42.026.08 | |
| *Bromus hordeaceus - Dichelostemma multiflorum* | | | 42.026.10 | |
| *Bromus hordeaceus - Erodium botrys* | | | 42.026.09 | |
| *Bromus hordeaceus - Erodium botrys - Plagiobothrys fulvus* | | | 42.026.13 | |
| *Bromus hordeaceus - Holocarpha virgata - Lolium perenne* | | | 42.026.15 | |
| *Bromus hordeaceus - Holocarpha virgata - Taeniatherum caput - medusa* | | | 42.026.14 | |
| *Bromus hordeaceus - Leontodon taraxacoides* | | | 42.026.17 | |
| *Bromus hordeaceus - Limnanthes douglasii* | | | 42.026.16 | |
| *Bromus hordeaceus - Lupinus nanus - Trifolium spp.* | | | 42.026.18 | |
| *Bromus hordeaceus - Taeniatherum caput - medusae* | | | 42.026.07 | |
| *Bromus hordeaceus - Vulpia hirsuta* | | | 42.026.02 | |
| *Bromus hordeaceus (-Vicia villosa - Lolium multiflorum) - Trifolium hirtum* | | | 42.026.19 | |
| *Bromus rubens* | | | 42.024.01 | |
| *Bromus rubens - mixed herbs* | | | 42.024.02 | |

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| *Bromus rubens - Schismus (arabicus, barbatus)* (Red brome or Mediterranean grass grasslands) Semi-natural Stands | Red brome or Mediterranean grass grasslands | | 42.024.00 | |
| *Schimus playa* | | | 42.024.03 | |
| *Centaurea (solstitialis, meletensis)* (Yellow star-thistle fields) Semi-natural Stands | Yellow star-thistle fields | | 42.042.00 | |
| *Centaurea melitensis - Brassica nigra* | | | 42.042.01. | |
| *Centaurea solstitialis* | | | 42.042.02. | |
| *Centaurea spp. - Brachypodium distachyon.* | | | 42.040.04. | |
| *Centaurea (virgata)* (Knapweed and purple-flowered star-thistle fields) Provisional Semi-natural Stands | Knapweed and purple-flowered star-thistle fields | | 42.043.00 | |
| *Conium maculatum - Foeniculum vulgare* (Poison hemlock or fennel patches) Semi-natural Stands | Poison hemlock or fennel patches | | 45.556.00 | |
| *Conium maculatum* | | | 45.556.01 | |
| *Foeniculum vulgare* | | | 45.556.02 | |
| *Cortaderia (jubata, selloana)* (Pampas grass patches) Semi-natural Stands | Pampas grass patches | | 42.070.00 | |
| *Cynosurus echinatus* (Annual dogtail grasslands) Semi-natural Stands | Annual dogtail grasslands | | 42.044.00 | Invasive sp ranking: Cal-IPC: Moderate |
| *Cynosurus echinatus - Arrhenatherum elatius / Dichelostemma capitatum* | | | 42.044.07 | |
| *Cynosurus echinatus - Bromus hordeaceus - Avena fatua* | | | 42.044.01 | |
| *Cynosurus echinatus - Bromus hordeaceus - Madia elegans* | | | 42.044.02 | |
| *Cynosurus echinatus - Bromus hordeaceus - Taeniatherum caput-medusae* | | | 42.044.04 | |
| *Cynosurus echinatus - Bromus hordeaceus - Taraxacum officinale* | | | 42.044.03 | |
| *Cynosurus echinatus - Lagophylla ramosissima* | | | 42.044.05 | |
| *Lolium perenne* (Perennial rye grass fields) Semi-natural Stands | Perennial rye grass fields | | 41.321.00 | Invasive sp ranking: Cal-IPC rank: Mode |
| *Lolium perenne* | | | 41.321.01 | |
| *Lolium perenne - Bromus hordeaceus* | | | 41.321.02 | |
| *Lolium perenne - Centaurium muehlenbergii* | | | 41.321.03 | |
| *Lolium perenne - Convolvulus arvensis* | | | 41.321.08 | |
| *Lolium perenne - Festuca arundinacea* | | | 41.321.09 | |
| *Lolium perenne - Hemizonia congesta* | | | 41.321.04 | |
| *Lolium perenne - Hordeum marinum - Ranunculus californicus* | | | 41.321.05 | |
| *Lolium perenne - Lepidium latifolium* | | | 41.321.10 | |
| *Lolium perenne - Leymus triticoides* | | | 41.321.06 | |
| *Lolium perenne - Lotus corniculatus* | | | 41.321.11 | |
| *Zigadenus fremontii ( - Lolium perenne)* | | | 41.321.12 | |
| *Pennisetum setaceum* (Fountain grass swards) Semi-natural Stands | Fountain grass swards | | 42.085.00 | |
| *Pennisetum setaceum - Coreopsis gigantea - Hesperoyucca whipplei - Malosma laurina* | | | 42.085.01 | |
| *Carex douglasii* (Douglas' sedge meadows) Provisional Alliance | Douglas' sedge meadows | G4? S2? | *45.169.00 | |
| *Iris missouriensis* (Western blue flag patches) Provisional Alliance | Western blue flag patches | G5 S4 | 45.401.00 | |
| *Muhlenbergia filiformis* (Pullup muhly meadows) Provisional Alliance | Pullup muhly meadows | G4? S4? | 41.276.00 | |
| *Phyllodoce empetriformis* (Mountain heather mats) Provisional Alliance | Mountain heather mats | G5 S2? | *45.404.00 | |
| *Veratrum californicum* (White corn lily patches) Alliance | White corn lily patches | G5 S4 | 45.423.00 | |
| *Veratrum californicum* | | | 45.423.02 | |
| *Veratrum californicum - Bistorta bistortoides* | | | 45.423.03 | |
| *Veratrum californicum - Juncus nevadensis* | | | 45.423.04 | |
| *Veratrum californicum - Senecio triangularis* | | | 45.423.01 | |
| *Carex heteroneura* (Different-nerve sedge patches) Provisional Alliance | Different-nerve sedge patches | G3? S3? | *45.115.00 | |
| *Carex heteroneura - Achillea millefolium* | | | *45.115.01 | |
| *Carex integra* (Small-fruited sedge meadows) Provisional Alliance | Small-fruited sedge meadows | G4? S2? | *45.175.00 | |
| *Carex jonesii* (Jones's sedge turf) Alliance | Jones's sedge turf | G4 S3 | *45.162.00 | |
| *Carex jonesii* | | | *45.162.02 | |
| *Carex jonesii - Bistorta bistortoides* | | | *45.162.01 | |
| *Carex jonesii / Sphagnum subsecundum* | | | *45.162.03 | |
| *Carex lasiocarpa* (Slender sedge meadows) Provisional Alliance | Slender sedge meadows | G5? S3? | *45.166.00 | |
| *Carex lasiocarpa* | | | *45.166.01 | |
| *Carex luzulina* (Woodland sedge fens) Provisional Alliance | Woodland sedge fens | G3 S2? | *45.179.00 | |
| *Carex microptera* (Small-winged sedge meadows) Provisional Alliance | Small-winged sedge meadows | G4 S2? | *45.181.00 | |
| *Carex nebrascensis* (Nebraska sedge meadows) Alliance | Nebraska sedge meadows | G5 S4 | 45.130.00 | |
| *Carex nebrascensis* | | | 45.130.01 | |
| *Carex nebrascensis - Ptilagrostis kingii* | | | 45.130.02 | |
| *Carex simulata* (Short-beaked sedge meadows) Alliance | Short-beaked sedge meadows | G4 S3 | *45.190.00 | |
| *Carex simulata* | | | *45.190.01 | |
| *Carex simulata - Carex utriculata* | | | *45.190.04 | |
| *Carex simulata - Carex vesicaria* | | | *45.190.05 | |
| *Carex simulata / Aulacomnium palustre* | | | *45.190.02 | |
| *Carex simulata / Philonotis fontana* | | | *45.190.03 | |
| *Carex straminiformis* (Mount Shasta sedge meadows) Provisional Alliance | Mount Shasta sedge meadows | G3? S3? | *45.185.00 | |
| *Carex subnigricans* (Dark alpine sedge turf) Alliance | Dark alpine sedge turf | G4 S3 | *45.186.00 | |
| *Carex subnigricans - Antennaria media* | | | *45.186.01 | |
| *Carex subnigricans - Deschampsia caespitosa* | | | *45.186.05 | |
| *Carex subnigricans - Dodecatheon alpinum* | | | *45.186.03 | |
| *Carex subnigricans - Oreostemma alpigenum* | | | *45.186.02 | |
| *Carex vernacula - Antennaria media* | | | 45.110.22 | |
| *Carex subnigricans - Pedicularis attollens* | | | *45.186.04 | |
| *Deschampsia caespitosa* (Tufted hair grass meadows) Alliance | Tufted hair grass meadows | G5 S4? (some associations are of high priority for | 41.220.00 | |

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| *Deschampsia caespitosa* | | | *41.220.08 | |
| *Deschampsia caespitosa - Anthoxanthum odoratum* | | | *41.220.05 | |
| *Deschampsia caespitosa - Bistorta bistortoides* | | | 41.220.12 | |
| *Deschampsia caespitosa - Cardamine breweri* | | | *41.220.02 | |
| *Deschampsia caespitosa - Carex nebrascensis* | | | 41.220.01 | |
| *Deschampsia caespitosa - Danthonia californica* | | | 41.220.09 | |
| *Deschampsia caespitosa - Horkelia marinensis* | | | *41.220.13 | |
| *Deschampsia caespitosa - Lilaeopsis masonii* | | | *41.220.14 | |
| *Deschampsia caespitosa - Perideridia parishii* | | | 41.220.11 | |
| *Deschampsia caespitosa - Senecio scorzonella* | | | 41.220.03 | |
| *Deschampsia caespitosa - Senecio scorzonella - Achillea millefolium* | | | 41.220.04 | |
| *Deschampsia caespitosa - Solidago multiradiata* | | | 41.220.07 | |
| *Deschampsia caespitosa - Trifolium longipes* | | | *41.220.10 | |
| *Deschampsia caespitosa var. holciformis* | | | *41.220.15 | |
| *Juncus nevadensis* (Sierra rush marshes) Alliance | Sierra rush marshes | G3? S3? | *45.567.00 | |
| *Juncus nevadensis* | | | *45.567.01 | |
| *Juncus nevadensis - Carex leporinella* | | | *45.567.02 | |
| *Juncus nevadensis - Eleocharis quinqueflora* | | | *45.567.03 | |
| *Solidago canadensis* (Canada goldenrod patches) Provisional Alliance | Canada goldenrod patches | G4? S4? | 45.420.00 | |
| *Trifolium longipes* (Long-stalk clover meadows) Provisional Alliance | Long-stalk clover meadows | G3? S3? | *45.426.00 | |
| *Aristida purpurea* (Purple three-awn meadows) Provisional Alliance | Purple three-awn meadows | G4 S3? | *45.425.00 | |
| *Elymus glaucus* (Blue wild rye meadows) Alliance | Blue wild rye meadows | G3? S3? | *41.640.00 | |
| *Elymus glaucus* | | | *41.640.01 | |
| *Elymus glaucus - Carex feta* | | | *41.640.03 | |
| *Elymus glaucus - Carex pellita* | | | *41.640.02 | |
| *Elymus glaucus - Heracleum lanatum* | | | *41.640.04 | |
| *Elymus multisetus* (Big squirreltail patches) Provisional Alliance | Big squirreltail patches | G4 S4? | 41.650.00 | |
| Bald Hills Prairie | | G2 S2.1 | | *CTT41200CA |
| *Festuca idahoensis* (Idaho fescue grassland) Alliance | Idaho fescue grassland | G4 S3? | *41.250.00 | |
| *Festuca idahoensis - Achillea millefolium* | | | *41.250.03 | |
| *Festuca idahoensis - Bromus carinatus* | | | *41.250.01 | |
| *Festuca idahoensis - Festuca rubra* | | | *41.250.02 | |
| *Leymus cinereus* (Ashy ryegrass meadows) Alliance | Ashy ryegrass meadows | G4 S2 | *41.020.00 | |
| *Poa secunda* (Curly blue grass grassland) Alliance | Curly blue grass grassland | G4 S3? | *41.180.00 | |
| Pine Bluegrass Grassland | | G3 S2.2 | | *CTT42150CA |
| *Poa secunda - Danthonia unispicata* | | | *41.180.04 | |
| *Poa secunda ssp. juncifolia* | | | *41.180.03 | |
| *Poa secunda ssp. secunda* | | | *41.180.02 | |
| *Agrostis (gigantea, stolonifera) - Festuca arundinacea* (Bent grass - tall fescue meadows) Semi-natural Stands | Bent grass - tall fescue meadows | | 45.106.00 | |
| *Agrostis gigantea* | | | 45.106.01 | |
| *Agrostis stolonifera* | | | 45.106.02 | |
| *Agrostis stolonifera - Festuca arundinacea* | | | 45.106.03 | |
| *Holcus lanatus* | | | 42.050.08 | |
| *Holcus lanatus - Anthoxanthum odoratum* | | | 42.050.09 | |
| *Holcus lanatus - Anthoxanthum odoratum* (Common velvet grass - sweet vernal grass meadows) Semi-natural Stands | Common velvet grass - sweet vernal grass meadows | | 42.050.00 | Invasive sp ranking: Cal-IPC: Moderate |
| *Phalaris aquatica* (Harding grass swards) Semi-natural Stands | Harding grass swards | | 42.051.00 | Invasive sp ranking: Cal-IPC: Moderate. |
| *Phalaris aquatica* | | | 42.051.02 | |
| *Phalaris aquatica - Avena barbata* | | | 42.051.03 | |
| *Phalaris aquatica - Bromus hordeaceus - Centaurea solstitialis* | | | 42.051.01 | |
| *Poa pratensis* (Kentucky blue grass turf) Semi-natural Stands | Kentucky blue grass turf | | 42.060.00 | |
| *Poa pratensis* | | | 42.060.05 | |
| *Poa pratensis - Carex (nebrascensis, pellita)* | | | 42.060.01 | |
| *Poa pratensis - Juncus patens - Luzula comosa* | | | 42.060.04 | |
| *Poa pratensis - Potentilla gracilis* | | | 42.060.02 | |
| *Poa pratensis ssp. pratensis* | | | 42.060.07 | |
| *Poa pratensis ssp.agassizensis* | | | 42.060.06 | |
| *Bromus tectorum* (Cheatgrass grassland) Semi-natural Stands | Cheatgrass grassland | | 42.020.00 | Invasive sp ranking: Cal-IPC High |
| *Bromus tectorum* | | | 42.020.01 | |
| *Bromus tectorum - Bromus diandrus* | | | 42.020.02 | |
| *Calamagrostis canadensis* (Bluejoint reed grass meadows) Alliance | Bluejoint reed grass meadows | G5 S3 | *41.224.00 | |
| *Calamagrostis canadensis* | | | *41.224.01 | |
| *Calamagrostis canadensis - Carex utriculata* | | | *41.224.02 | |
| *Calamagrostis canadensis - Dodecatheon redolens* | | | *41.224.03 | |
| *Calamagrostis canadensis - Scirpus microcarpus* | | | *41.224.04 | |
| Dry Montane Meadow | | G4 S3.2 | | CTT45120CA |
| *Cistanthe (umbellata) - Gayophytum (diffusum)* (Pussypaws - groundsmoke openings) Alliance | Pussypaws - groundsmoke openings | G4 S4 | 45.311.00 | |
| *Astragalus bolanderi - (Cistanthe umbellatum)* | | | 45.311.01 | |
| *Cistanthe umbellatum - Achnatherum occidentalis* | | | 45.311.02 | |
| *Cistanthe - Castilleja arachnoidea* | | | 45.311.03 | |
| *Polygonum douglasii - Gayophytum dffusum* | | | 45.311.04 | |

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| *Danthonia intermedia* (Wild mountain oat grass meadows) Alliance | Wild mountain oat grass meadows | G4? S3? | *41.051.00 | |
| *Danthonia intermedia - Antennaria rosea* | | | *41.051.01 | |
| *Danthonia intermedia - Ptilagrostis kingii* | | | *41.051.02 | |
| *Hordeum brachyantherum* (Meadow barley patches) Alliance | Meadow barley patches | G4 S3? | *42.052.00 | |
| *Hordeum brachyantherum* | | | *42.052.01 | |
| *Hordeum brachyantherum - Poa pratensis* | | | *42.052.04 | |
| *Hordeum brachyantherum - Polypogon monspeliensis* | | | *42.052.02 | |
| *Hordeum brachyantherum - Senecio triangularis* | | | *42.052.03 | |
| *Muhlenbergia richardsonis* (Mat muhly meadows) Provisional Alliance | Mat muhly meadows | G4? S4? | 41.277.00 | |
| *Penstemon heterodoxus* (Heretic penstemon patches) Provisional Alliance | Heretic penstemon patches | G4? S3? | *45.414.00 | |
| *Antennaria alpina - Penstemon heterodoxus* | | | *91.120.02 | |
| *Ptilagrostis kingii* (King's needle grass meadows) Alliance | King's needle grass meadows | G4 S4 | 41.225.00 | |
| *Ptilagrostis kingii* | | | 41.225.01 | |
| *Ptilagrostis kingii - Oreostemma alpigenum* | | | 41.225.02 | |
| *Ptilagrostis kingii - Senecio scorzonella* | | | 91.120.25 | |
| *Holodiscus discolor* (Ocean spray brush) Alliance | Ocean spray brush | G4 S3 | *39.100.00 | |
| *Holodiscus discolor - Arctostaphylos patula* | | | *39.100.03 | |
| *Holodiscus discolor - Keckiella corymbosa* | | | *39.100.04 | |
| *Holodiscus discolor - Sambucus racemosa* | | | *39.100.06 | |
| *Holodiscus discolor / Achnatherum occidentalis - Eriogonum nudum* | | | *39.100.02 | |
| *Holodiscus discolor / Mimulus suksdorfii* | | | *39.100.01 | |
| *Holodiscus discolor / Sedum obsusatum ssp. boreale - Cryptogramma acrostichoides* | | | *39.100.05 | |
| *Juncus parryi* (Parry's rush outcrops) Alliance | Parry's rush outcrops | G4 S4 | 45.566.00 | |
| *Juncus parryi - Eriogonum incanum* | | | 45.566.01 | |
| *Penstemon newberryi* (Mountain pride patches) Alliance | Mountain pride patches | G4 S4 | 45.415.00 | |
| *Penstemon newberryi - Streptanthus tortuosus - Sedum obtusatum ssp. boreale - Muhlenbergia montana* | | | 45.415.03 | |
| *Penstemon newberryi - Streptanthus tortuosus / Selaginella watsonii* | | | 45.415.04 | |
| *Penstemon newberryi - Streptanthus tortuosus / Spiraea densiflora* | | | 45.415.02 | |
| *Phyllodoce breweri* (Mountain heather mats) Alliance | Mountain heather mats | G4 S4? | 45.402.00 | |
| *Phyllodoce breweri - Cassiope mertensiana - Juncus parryi* | | | 45.402.02 | |
| *Phyllodoce breweri - Juncus parryi* | | | 45.402.01 | |
| *Phyllodoce breweri - Vaccinium caespitosum* | | | 45.405.01 | |
| *Ceanothus integerrimus* (Deer brush chaparral) Alliance | Deer brush chaparral | G4 S4 | 37.206.00 | |
| Deer Brush Chaparral | | G4 S4 | | *CTT37531CA |
| *Ceanothus integerrimus* | | | 37.206.01 | |
| *Ceanothus integerrimus - Arctostaphylos viscida* | | | 37.206.04 | |
| *Ceanothus integerrimus - Quercus garryana var. fruticosa* | | | 37.206.05 | |
| *Ceanothus integerrimus / Lithocarpus densiflorus - Arbutus menziesii* | | | 37.206.03 | |
| *Ceanothus integerrimus / Quercus chrysolepis / Elymus glaucus* | | | 37.206.02 | |
| *Prunus emarginata* (Bitter cherry thickets) Provisional Alliance | Bitter cherry thickets | G4 S4 | 37.900.00 | |
| *Quercus garryana* (Brewer oak scrub) Alliance | Brewer oak scrub | G4 S4 | 37.411.00 | |
| Shin Oak Chaparral | | G3 S3.3 | | *CTT37541CA |
| *Quercus garryana shrub* | | | 37.411.03 | |
| *Quercus garryana / Festuca californica* | | | 37.411.04 | |
| *Quercus garryana - Arctostaphylos patula* | | | 37.411.05 | |
| *Quercus garryana - Cercocarpus montanus* | | | 37.411.06 | |
| *Artemisia cana* (Silver sagebrush scrub) Alliance | Silver sagebrush scrub | G5 S3 | *35.150.00 | |
| *Artemisia cana - Muhlenbergia richardsonis* | | | *35.150.06 | |
| *Artemisia cana / cold* | | | *35.150.01 | |
| *Artemisia cana / dry graminoid* | | | *35.150.02 | |
| *Artemisia cana / Iris missouriensis - Juncus arcticus var. balticus* | | | *35.150.05 | |
| *Artemisia cana / Juncus arcticus var. balticus* | | | *35.150.04 | |
| *Artemisia cana / mesic (Poa secunda - Poa cusickii)* | | | *35.150.07 | |
| *Artemisia cana / warm* | | | *35.150.03 | |
| *Rhus trilobata* (Basket bush thickets) Provisional Alliance | Basket bush thickets | G4 S3? | *37.802.00 | |
| *Prunus virginiana* (Choke cherry thickets) Provisional Alliance | Choke cherry thickets | G4 S2? | *37.905.00 | |
| *Ribes quercetorum* (Oak gooseberry thickets) Provisional Alliance | Oak gooseberry thickets | G2 S2? | *37.960.00 | |
| Coastal Terrace Prairie | | G2 S2.1 | | *CTT41100CA |
| *Calamagrostis nutkaensis* (Pacific reed grass meadows) Alliance | Pacific reed grass meadows | G4 S2 | *41.190.00 | |
| *Calamagrostis nutkaensis* | | | *41.190.03 | |
| *Calamagrostis nutkaensis - Baccharis pilularis* | | | *41.190.01 | |
| *Calamagrostis nutkaensis - Carex obnupta. - Juncus spp.* | | | *41.190.02 | |
| *Danthonia californica* (California oat grass prairie) Provisional Alliance | California oat grass prairie | G4 S3 | *41.050.00 | |
| *Danthonia californica* | | | *41.050.05 | |
| *Danthonia californiaca - Aira caryophyllea* | | | *41.050.04 | |
| *Danthonia californica - Arrhenatherum elatius* | | | *41.050.01 | |
| *Danthonia californica - Elymus elymoides* | | | *41.050.02 | |
| *Danthonia californica - Muhlenbergia filiformis* | | | *41.050.03 | |
| *Festuca rubra* (Red fescue grassland) Alliance | Red fescue grassland | G4 S3? | *41.255.00 | |
| *Festuca rubra* | | | *41.255.01 | |

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| *Corylus cornuta / Polystichum munitum* | | | *37.950.01 | | |
| *Corylus cornuta var. californica* (Hazelnut scrub) Alliance | Hazelnut scrub | G3 S2? | *37.950.00 | | |
| *Rubus (parviflorus, spectabilis, ursinus)* (Coastal brambles) Alliance | Coastal brambles | G4 S3 | *63.901.00 | | |
| *Gaultheria shallon - Rubus spectabiis - Rubus parviflorus* | | | *63.901.01 | | |
| *Rubus parviflorus* | | | *63.901.03 | | |
| *Rubus parviflorus - Rubus spectabilis - Rubus ursinus* | | | *63.901.02 | | |
| *Rubus spectabilis* | | | *63.901.04 | | |
| *Rubus ursinus* | | | *63.901.05 | | |
| *Toxicodendron diversilobum* (Poison oak scrub) Alliance | Poison oak scrub | G4 S4 | 37.940.00 | | |
| Poison Oak Chaparral | | G3 S3.3 | | *CTT37F00CA | |
| *Toxicodendron diversilobum - Artemisia californica / Leymus condensatus* | | | 37.940.02 | | |
| *Toxicodendron diversilobum - Baccharis pilularis - Rubus parviflorus* | | | 37.940.01 | | |
| *Toxicodendron diversilobum - Diplacus aurantiacus* | | | 37.940.03 | | |
| *Toxicodendron diversilobum - Philadelphus lewisii* | | | 37.940.04 | | |
| *Toxicodendron diversilobum / Bromus hordeaceus - Micropus californicus* | | | 37.940.05 | | |
| *Toxicodendron diversilobum / Bromus hordeaceus - Vicia villosa - Madia gracilis* | | | 37.940.06 | | |
| *Toxicodendron diversilobum / herbaceous* | | | 37.940.08 | | |
| *Toxicodendron diversilobum / Pteridium aquilinum* | | | 37.940.07 | | |
| *Rubus armeniacus* (Himalayan black berry brambles) Semi-natural Stands | Himalayan black berry brambles | | 63.906.00 | | Invasive Sp Ranking: Cal-IPC: High. |
| *Rubus armeniacus* | | | 63.906.01 | | |
| *Rubus armeniacus - Rubus ursinus* | | | 63.906.02 | | |
| Semi Desert Chaparral | | G3 S3.2 | | *CTT37400CA | |
| *Adenostoma sparsifolium* (Redshank chaparral) Alliance | Redshank chaparral | G4 S4 (some associations are of high priority for | 37.501.00 | | |
| Red Shank Chaparral | | G3 S3.2 | | *CTT37300CA | |
| *Adenostoma sparsifolium* | | | *37.501.01 | | |
| *Adenostoma sparsifolium - Adenostoma fasciculatum - Arctostaphylos glauca* | | | 37.503.05 | | |
| *Adenostoma sparsifolium - Adenostoma fasciculatum - Arctostaphylos pungens* | | | *37.503.03 | | |
| *Adenostoma sparsifolium - Adenostoma fasciculatum - Ceanothus crassifolius* | | | 37.503.04 | | |
| *Adenostoma sparsifolium - Adenostoma fasciculatum - Ceanothus greggii* | | | *37.503.02 | | |
| *Adenostoma sparsifolium - Adenostoma fasciculatum - Cercocarpus montanus* | | | *37.503.01 | | |
| *Adenostoma sparsifolium - Adenostoma fasciculatum - Opuntia parryi* | | | 37.503.06 | | |
| *Adenostoma sparsifolium - Artemisia tridentata* | | | 37.501.02 | | |
| *Adenostoma sparsifolium - Ceanothus crassifolius* | | | 37.501.03 | | |
| *Adenostoma sparsifolium - Ceanothus cuneatus* | | | 37.501.04 | | |
| *Adenostoma sparsifolium - Cercocarpus montanus* | | | 37.502.01 | | |
| *Adenostoma sparsifolium - Ericameria linearifolia - Eriogonum fasciculatum - Opuntia basilaris* | | | 37.501.06 | | |
| *Adenostoma sparsifolium - Eriogonum fasciculatum - Lotus scoparius* | | | 37.501.07 | | |
| *Quercus cornelius-mulleri* (Muller oak chaparral) Alliance | Muller oak chaparral | G4 S4 | 37.415.00 | | |
| *Quercus cornelius-mulleri - Adenostoma sparsifolium - Ceanothus greggii* | | | 37.415.04 | | |
| *Quercus cornelius-mulleri - Adenostoma sparsifolium - Cercocapus montanus* | | | 37.415.05 | | |
| *Quercus cornelius-mulleri - Cercocapus montanus* | | | 37.415.03 | | |
| *Quercus cornelius-mulleri - Eriogonum fasciculatum - Ericameria linearifolia* | | | 37.415.02 | | |
| *Quercus cornelius-mulleri - Rhus ovata* | | | 37.415.01 | | |
| *Quercus cornelius-mulleri -Coleogyne ramosissima* | | | 37.415.06 | | |
| *Quercus john-tuckeri* (Tucker oak chaparral) Alliance | Tucker oak chaparral | G4 S4 | 37.418.00 | | |
| Alvord Oak Woodland | | G2 S2.2 | | *CTT71170CA | |
| *Quercus john-tuckeri* | | | 37.418.04 | | |
| *Quercus john-tuckeri - Adenostoma fasciculatum* | | | 37.418.01 | | |
| *Quercus john-tuckeri - Juniperus californica - Ericameria linearifolia* | | | 37.418.05 | | |
| *Quercus john-tuckeri - Juniperus californica - Fraxinus dipetala* | | | 37.418.02 | | |
| *Quercus john-tuckeri - Quercus wislizeni - Garrya flavescens* | | | 37.418.03 | | |
| *Ceanothus greggii* (Cup leaf ceanothus chaparral) Alliance | Cup leaf ceanothus chaparral | G4 S3 | *37.212.00 | | |
| *Ceanothus greggii* | | | *37.212.01 | | |
| *Ceanothus greggii - Adenostoma fasciculatum* | | | *37.212.03 | | |
| *Quercus turbinella* (Sonoran live oak scrub) Alliance | Sonoran live oak scrub | G4 S1 | *71.095.00 | | |
| *Quercus turbinella - Baccharis sergiloides* | | | *71.095.02 | | |
| *Quercus turbinella / Pinus monophylla* | | | *71.095.01 | | |
| *Rhus ovata* (Sugarbush chaparral) Alliance | Sugarbush chaparral | G4 S4 (some associations are of high priority for | 37.801.00 | | |
| *Rhus ovata* | | | 37.801.01 | | |
| *Rhus ovata - Salvia leucophylla - Artemisia californica* | | | 37.801.02 | | |
| *Rhus ovata - Ziziphus parryi* | | | *37.801.03 | | |
| Mixed Montane Chaparral | | G4 S4 | | CTT37510CA | |
| *Ceanothus cordulatus* (Mountain white thorn chaparral) Alliance | Mountain white thorn chaparral | G4 S4 | 37.209.00 | | |
| *Ceanothus cordulatus* | | | 37.209.01 | | |
| *Chrysolepis sempervirens* (Bush chinquapin chaparral) Alliance | Bush chinquapin chaparral | G4 S3 | *37.700.00 | | |
| Bush Chinquapin Chaparral | | G3 S3.3 | | *CTT37550CA | |
| *Chrysolepis sempervirens* | | | *37.700.01 | | |
| *Lithocarpus densiflorus var. echinoides* (Shrub tanoak chaparral) Alliance | Shrub tanoak chaparral | G3 S3 | *73.110.00 | | |
| *Lithocarpus densiflorus var. echinoides / Arctostaphylos nevadensis* | | | *73.110.01 | | |
| *Lithocarpus densiflorus var. echinoides / Pteridium aquilinum* | | | *73.110.02 | | |

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| *Quercus sadleriana* (Sadler oak or deer oak brush fields) Alliance | Sadler oak or deer oak brush fields | G3 S3 | *37.412.00 | |
| *Quercus sadleriana* | | | *37.412.01 | |
| *Quercus vacciniifolia* (Huckleberry oak chaparral) Alliance | Huckleberry oak chaparral | G4 S4 | 37.414.00 | |
| Huckleberry Oak Chaparral | | G3 S3.3 | | *CTT37542CA |
| *Quercus vacciniifolia* | | | 37.414.01 | |
| *Quercus vacciniifolia - Arctostaphylos patula* | | | 37.414.03 | |
| *Quercus vacciniifolia - Chrysolepis sempervirens* | | | 37.414.02 | |
| *Arctostaphylos patula* (Green leaf manzanita chaparral) Alliance | Green leaf manzanita chaparral | G5 S4 | 37.303.00 | |
| Montane Manzanita Chaparral | | G4 S4 | | CTT37520CA |
| *Arctostaphylos patula* | | | 37.303.01 | |
| *Arctostaphylos patula - Quercus vacciniifolia* | | | 37.303.02 | |
| *Ceanothus velutinus* (Tobacco brush or snow bush chaparral) Alliance | Tobacco brush or snow bush chaparral | G5 S4 | 37.210.00 | |
| Tobacco Brush Chaparral | | G4 S3.3 | | CTT37533CA |
| *Ceanothus velutinus* | | | 37.210.01 | |
| *Ceanothus velutinus - Prunus emarginata - Artemisia tridentata* | | | 37.210.02 | |
| Active Coastal Dunes | | G3 S2.2 | | *CTT21100CA |
| Northern Foredunes | | G2 S2.1 | | *CTT21210CA |
| Northern Foredune Grassland | | G1 S1.1 | | *CTT21211CA |
| Central Foredunes | | G1 S1.2 | | *CTT21220CA |
| Southern Foredunes | | G2 S2.1 | | *CTT21230CA |
| Northern Dune Scrub | | G2 S1.2 | | CTT21310CA |
| Central Dune Scrub | | G2 S2.2 | | *CTT21320CA |
| Southern Dune Scrub | | G1 S1.1 | | *CTT21330CA |
| Northern Coastal Bluff Scrub | | G2 S2.2 | | *CTT31100CA |
| Northern Salal Scrub | | G4 S3.2 | | *CTT32120CA |
| Southern Coastal Bluff Scrub | | G1 S1.1 | | *CTT31200CA |
| *Abronia latifolia - Ambrosia chamissonis* (Dune mat) Alliance | Dune mat | G3 S3 | *21.100.00 | |
| *Abronia latifolia - Erigeron glaucus* | | | *21.101.01 | |
| *Abronia latifolia - Leymus mollis* | | | *21.101.02 | |
| *Ambrosia chamissonis - Abronia maritima - Cakile maritima* | | | *21.102.02 | |
| *Ambrosia chamissonis - Abronia umbellata* | | | *21.102.01 | |
| *Ambrosia chamissonis - Eriophyllum staechadifolium (- Lupinus arboreus)* | | | *21.100.03 | |
| *Ambrosia chamissonis - Malacothrix incana - Carpobrotus chilensis - Poa douglasii* | | | *21.102.03 | |
| *Artemisia pycnocephala - Calystegia soldanella* | | | *21.100.01 | |
| *Artemisia pycnocephala - Cardionema ramosissimum* | | | *21.110.01 | |
| *Artemisia pycnocephala - Ericameria ericoides* | | | *21.110.03 | |
| *Artemisia pycnocephala - Poa douglasii* | | | *21.110.04 | |
| *Artemisia pycnocephala - Polygonum paronychia* | | | 21.110.02 | |
| *Poa douglasii - Lathyrus littoralis* | | | *21.100.06 | |
| *Cakile maritima - Abronia maritima* | | | 21.125.01 | |
| *Cakile maritima - Ambrosia chamissonis - Carpobrotus edulis* | | | 21.102.04 | |
| *Carex pansa* (Sand dune sedge swaths) Provisional Alliance | Sand dune sedge swaths | G4? S3? | *45.184.00 | |
| *Leymus mollis* (Sea lyme grass patches) Alliance | Sea lyme grass patches | G4 S2 | *41.260.00 | |
| *Leymus mollis - Abronia latifolia - (Cakile sp.)* | | | *41.260.03 | |
| *Leymus mollis - Ammophila arenaria* | | | *41.260.02 | |
| *Leymus mollis - Carpobrotus edulis* | | | *41.260.01 | |
| *Baccharis pilularis* (Coyote brush scrub) Alliance | Coyote brush scrub | G5 S5 (some associations are of high priority for | 32.060.00 | |
| Northern Coyote Bush Scrub | | G4 S4 | | *CTT32110CA |
| Central Lucian Coastal Scrub | | G3 S3.3 | | *CTT32200CA |
| *Baccharis pilularis* | | | 32.060.23 | |
| *Baccharis pilularis - Lupinus arboreus* | | | 32.060.06 | |
| *Baccharis pilularis - Artemisia californica* | | | 32.060.05 | |
| *Baccharis pilularis - Artemisia californica - Heteromeles arbutifolia* | | | 32.060.19 | |
| *Baccharis pilularis - Artemisia californica - Toxicodendron / Monardella villosa* | | | 32.060.18 | |
| *Baccharis pilularis - Ceanothus thyrsiflorus* | | | 32.060.14 | |
| *Baccharis pilularis - Corylus cornuta* | | | 32.060.25 | |
| *Baccharis pilularis - Frangula californica - Rubus parviflorus* | | | 32.060.16 | |
| *Baccharis pilularis - Holodiscus discolor* | | | *32.060.12 | |
| *Baccharis pilularis - Lotus scoparius* | | | 32.060.29 | |
| *Baccharis pilularis - Prunus ilicifolia* | | | 32.060.26 | |
| *Baccharis pilularis - Rubus ursinus / weedy herb* | | | 32.060.15 | |
| *Baccharis pilularis - Salvia mellifera* | | | 32.060.27 | |
| *Baccharis pilularis - Toxicodendron diversilobum* | | | 32.060.17 | |
| *Baccharis pilularis / Ammophila arenaria* | | | 32.060.07 | |
| *Baccharis pilularis / Annual Grass - Herb* | | | 32.060.20 | |
| *Baccharis pilularis / Carex obnupta - Juncus patens* | | | *32.060.13 | |
| *Baccharis pilularis / Danthonia californica* | | | *32.060.11 | |
| *Baccharis pilularis / Deschampsia caespitosa* | | | *32.060.02 | |
| *Baccharis pilularis / Dudleya farinosa* | | | 32.060.24 | |
| *Baccharis pilularis / Eriophyllum staechadifolium* | | | *32.060.01 | |

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| *Baccharis pilularis / Leymus triticoides* | | | *32.060.03 | | |
| *Baccharis pilularis / Nassella pulchra* | | | *32.060.10 | | |
| *Baccharis pilularis / Native Grass (Mixed)* | | | 32.060.21 | | |
| *Baccharis pilularis / Polystichum munitum* | | | *32.060.04 | | |
| *Baccharis pilularis / Scrophularia californica* | | | 32.060.08 | | |
| *Gaultheria shallon - Baccharis pilularis - Ceanothus thyrsiflorus* | | | 32.060.28 | | |
| *Ceanothus thyrsiflorus* (Blue blossom chaparral) Alliance | Blue blossom chaparral | G4 S4 | 37.204.00 | | |
| Blue Brush Chaparral | | G4 S4 | | CTT37820CA | |
| *Ceanothus thyrsiflorus - Baccharis pilularis - Toxicodendron diversilobum* | | | 37.204.01 | | |
| *Ceanothus thyrsiflorus - Rubus ursinus* | | | 37.204.02 | | |
| *Ceanothus thyrsiflorus - Vaccinium ovatum - Rubus parviflorus* | | | 37.204.03 | | |
| *Frangula californica* (California coffee berry scrub) Alliance | California coffee berry scrub | G4 S4 (some associations are of high priority for | 37.920.00 | | |
| *Frangula californica spp. tomentella / Hoita macrostachya* | | | 37.920.04 | | |
| *Frangula californica ssp. tomentella* | | | 37.920.02 | | |
| *Frangula californica ssp. tomentella / Cirsium fontinale var. campylon - Mimulus guttatus* | | | 37.920.03 | | |
| *Frangula californica - Baccharis pilularis / Scrophularia californica* | | | *37.920.01 | | |
| *Garrya elliptica* (Coastal silk tassel scrub) Provisional Alliance | Coastal silk tassel scrub | G3? S3? | *39.040.00 | | |
| Silk Tassel Forest | | G3 S3.2 | | *CTT81900CA | |
| Northern Silk Tassel Scrub | | G3 S2.3 | | *CTT32130CA | |
| *Lupinus arboreus* (Yellow bush lupine scrub) Alliance | Yellow bush lupine scrub | G4 S4 (within native range), some associations are high | 32.080.00 | | |
| *Lupinus arboreus* | | | 32.080.02 | | |
| *Lupinus arboreus - Ericameria ericoides* | | | *32.080.03 | | |
| *Lupinus arboreus / Anthoxanthum odoratum* | | | 32.080.04 | | |
| *Lupinus arboreus / Bromus diandrus* | | | 32.080.01 | | |
| *Lupinus arboreus / Scrophularia californica* | | | 32.080.05 | | |
| *Ericameria ericoides* | | | *32.160.01 | | |
| *Lupinus chamissonis - Ericameria ericoides* (Silver dune lupine - mock heather scrub) Alliance | Silver dune lupine - mock heather scrub | G3 S3 | *32.160.00 | | |
| *Lupinus chamissonis* | | | *32.160.02 | | |
| *Lupinus chamissonis - Ericameria ericoides* | | | *32.160.03 | | |
| *Venegasia carpesioides* (Canyon sunflower scrub) Alliance | Canyon sunflower scrub | G3 S3 | *39.030.00 | | |
| *Venegasia carpesioides* | | | *39.030.01 | | |
| *Ammophila arenaria* (European beach grass swards) Semi-natural Stands | European beach grass swards | | 42.010.00 | | Invasive sp ranking: Cal-IPC High |
| *Ammophila arenaria* | | | 42.010.02 | | |
| *Ammophila arenaria - Cardionema ramosissimum* | | | 42.010.03 | | |
| *Ammophila arenaria - Erechtites minima* | | | 42.010.01 | | |
| *Ammophila arenaria - Lupinus variicolor* | | | 42.010.04 | | |
| *Cakile (edentula, maritima)* (Sea rocket sands) Provisional Semi-natural Stands | Sea rocket sands | | 21.125.00 | | Invasive sp ranking: Cal-IPC Unranked |
| *Carpobrotus edulis or other Ice Plants* (Ice plant mats) Semi-natural Stands | Ice plant mats | | 21.200.00 | | Invasive sp ranking: Cal ICP High |
| Fen | | G2 S1.2 | | *CTT51200CA | |
| *Carex limosa* (Shore sedge fens) Alliance | Shore sedge fens | G4? S2? | *45.178.00 | | |
| *Carex limosa - Menyanthes trifoliata* | | | *45.178.02 | | |
| *Carex limosa - Mimulus primuloides* | | | *45.110.03 | | |
| *Carex limosa / Drepanocladus sordidus* | | | *45.178.01 | | |
| *Dulichium arundinaceum* (Three-way sedge meadows) Provisional Alliance | Three-way sedge meadows | G3? S1 | *52.115.00 | | |
| *Dulichium arundinaceum* | | | *52.115.01 | | |
| Darlingtonia Seep | | G4 S3.2 | | *CTT51120CA | |
| *Darlingtonia californica* (California pitcher plant fens) Alliance | California pitcher plant fens | G4? S3 | *51.200.00 | | |
| *Darlingtonia californica* | | | *51.200.01 | | |
| *Rhododendron neoglandulosum* (Western Labrador-tea thickets) Alliance | Western Labrador-tea thickets | G4 S2? | *63.425.00 | | |
| Ledum Swamp | | G2 S2.1 | | *CTT5261ACA | |
| *Rhododendron neoglandulosum* | | | *63.425.01 | | |
| *Rhododendron neoglandulosum - Kalmia microphylla / Pinus contorta* | | | *63.425.02 | | |
| *Triantha occidentalis - Narthecium californicum* (Western false asphodel - California bog asphodel fens) Alliance | Western false asphodel - California bog asp | G2? S2? | *45.135.00 | | |
| *Triantha occidentalis - Rhynchospora alba* | | | *45.135.01 | | |
| *Triantha occidentalis / Sphagnum teres* | | | *45.135.02 | | |
| *Triantha occidentalis - Narthecium californicum* | | | *45.135.03 | | |
| *Vaccinium uliginosum* (Bog blue berry wet meadows) Alliance | Bog blue berry wet meadows | G4 S3 | *45.410.00 | | |
| *Vaccinium uliginosum* | | | *45.410.01 | | |
| *Vaccinium uliginosum / Aulacomnium palustre* | | | *45.410.03 | | |
| *Vaccinium uliginosum / Sphagnum teres* | | | *45.410.04 | | |
| *Vaccinium uliginosum ssp. occidentale / Bistorta bistortoides* | | | *45.410.02 | | |
| Sphagnum Bog | | G3 S1.2 | | *CTT51110CA | |
| Coastal and Valley Freshwater Marsh | | G3 S2.1 | | *CTT52410CA | |
| Transmontane Freshwater Marsh | | G3 S2.2 | | *CTT52420CA | |
| *Phragmites australis* (Common reed marshes) Alliance | Common reed marshes | G5 S4? | 41.061.00 | | |
| *Phragmites australis* | | | 41.061.01 | | |
| *Phragmites australis - Scirpus spp.* | | | 41.061.02 | | |
| *Schoenoplectus acutus* (Hardstem bulrush marsh) Alliance | Hardstem bulrush marsh | G5 S4 | 52.122.00 | | |
| *Schoenoplectus acutus* | | | 52.122.01 | | |
| *Schoenoplectus acutus - Apocynum cannabinum* | | | 52.122.02 | | |

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| *Schoenoplectus acutus - Typha angustifolia* | | | 52.122.03 | |
| *Schoenoplectus acutus - Typha domingensis* | | | 52.102.02 | |
| *Schoenoplectus acutus - Typha latifolia* | | | 52.122.04 | |
| *Schoenoplectus acutus - Typha latifolia - Phragmites australis* | | | 52.122.05 | |
| *Schoenoplectus acutus - Xanthium strumarium* | | | 52.122.06 | |
| *Schoenoplectus californicus* (California bulrush marsh) Alliance | California bulrush marsh | G5 S4? | 52.114.00 | |
| *Schoenoplectus californicus* | | | 52.114.02 | |
| *Schoenoplectus californicus - Apocynum cannabinum* | | | 52.114.03 | |
| *Schoenoplectus californicus - Eichhornia crassipes* | | | 52.114.04 | |
| *Schoenoplectus californicus - Schoenoplectus acutus* | | | 52.114.01 | |
| *Schoenoplectus californicus - Schoenoplectus acutus / Rosa californica* | | | 52.114.06 | |
| *Schoenoplectus californicus - Typha latifolia* | | | 52.114.05 | |
| *Typha (angustifolia, domingensis, latifolia)* (Cattail marshes) Alliance | Cattail marshes | G5 S5 | 52.050.00 | |
| *Typha angustifolia* | | | 52.050.01 | |
| *Typha angustifolia - Distichlis spicata* | | | 52.050.02 | |
| *Typha angustifolia - Typha latifolia - Typha domingensis* | | | 52.050.05 | |
| *Typha angustifolia - Typha latifolia - Typha domingensis / Distichlis spicata* | | | 52.050.06 | |
| *Typha angustifolia - Typha latifolia - Typha domingensis / Echinocloa crus-galli* | | | 52.050.07 | |
| *Typha angustifolia - Typha latifolia - Typha domingensis / Phragmites australis* | | | 52.050.08 | |
| *Typha angustifolia - Typha latifolia - Typha domingensis / Schoenoplectus americanus* | | | 52.050.09 | |
| *Typha domingensis* | | | 52.050.03 | |
| *Typha latifolia* | | | 52.103.02 | |
| *Typha latifolia - Typha angustifolia* | | | 52.050.04 | |
| *Argentina egedii* (Pacific silverweed marshes) Alliance | Pacific silverweed marshes | G4 S2 | *38.140.00 | |
| *Argentina egedii* | | | *38.140.01 | |
| *Argentina egedii - Eleocharis macrostachya* | | | *38.140.03 | |
| *Argentina egedii - Alopecurus aequalis* | | | *38.140.02 | |
| *Argentina egedii - Lotus uliginosus* | | | *38.140.04 | |
| *Carex obnupta* (Slough sedge swards) Alliance | Slough sedge swards | G4 S3 | *45.183.00 | |
| *Carex obnupta* | | | *45.183.01 | |
| *Carex obnupta - Juncus lescurii* | | | *45.183.02 | |
| *Carex obnupta - Juncus patens* | | | *45.183.03 | |
| *Juncus effusus* (Soft rush marshes) Alliance | Soft rush marshes | G4 S4? | 45.561.00 | |
| *Juncus effusus* | | | 45.561.01 | |
| *Juncus lescurii* (Salt rush swales) Alliance | Salt rush swales | G3 S2? | *45.569.00 | |
| *Juncus lescurii* | | | *45.569.01 | |
| *Juncus (lescurii) - Distichlis spicata* | | | *45.569.02 | |
| *Juncus patens* (Western rush marshes) Provisional Alliance | Western rush marshes | G4? S4? | 45.564.00 | |
| *Oenanthe sarmentosa* (Water-parsley marsh) Alliance | Water-parsley marsh | G4 S2? | *52.119.00 | |
| *Oenanthe sarmentosa* | | | *52.119.01 | |
| *Scirpus microcarpus* (Small-fruited bulrush marsh) Alliance | Small-fruited bulrush marsh | G4 S2 | *52.113.00 | |
| *Scirpus microcarpus* | | | *52.113.01 | |
| *Scirpus microcarpus - Oxypolis occidentalis* | | | *52.113.02 | |
| *Scirpus microcarpus - Scirpus congdonii* | | | *52.113.03 | |
| Northern Basalt Flow Vernal Pool | | G3 S2.2 | | *CTT44131CA |
| Northern Volcanic Ash Vernal Pool | | G1 S1.1 | | *CTT44133CA |
| Northern Volcanic Mud Flow Vernal Pool | | G1 S1.1 | | *CTT44132CA |
| Northern Vernal Pool | | G2 S2.1 | | *CTT44100CA |
| Northern Hardpan Vernal Pool | | G3 S3.1 | | *CTT44110CA |
| Northern Claypan Vernal Pool | | G1 S1.1 | | *CTT44120CA |
| San Diego Mesa Claypan Vernal Pool | | G2 S2.1 | | *CTT44322CA |
| San Diego Mesa Hardpan Vernal Pool | | G2 S2.1 | | *CTT44321CA |
| Southern Interior Basalt Flow Vernal Pool | | G1 S1.2 | | *CTT44310CA |
| Southern Vernal Pool | | G? SNR | | CTT44300CA |
| Vernal Marsh | | G2 S2.1 | | *CTT52500CA |
| *Alopecurus geniculatus* (Water foxtail meadows) Provisional Alliance | Water foxtail meadows | G3? S3? | *42.006.00 | |
| *Lasthenia fremontii - Downingia (bicornuta)* (Fremont's goldfields - Downingia vernal pools) Alliance | Fremont's goldfields - Downingia vernal poo | G3 S3 | *42.007.00 | |
| *Downingia (bicornuta, cuspidata)* | | | *42.007.02 | |
| *Downingia bicornuta* | | | *42.007.01 | |
| *Eryngium (vaseyi, castrense)* | | | *42.007.06 | |
| *Lasthenia californica - Downingia bicornuta* | | | *42.007.08 | |
| *Lasthenia fremontii* | | | *42.007.07 | |
| *Lasthenia fremontii - Downingia bicornuta* | | | *42.007.03 | |
| *Lasthenia fremontii - Downingia ornatissima* | | | *42.007.04 | |
| *Ranunculus bonariensis - Holocarpha virgata* | | | *42.007.05 | |
| *Eleocharis macrostachya* (Pale spike rush marshes) Alliance | Pale spike rush marshes | G4 S4 (some associations are of high priority for | 45.230.00 | |
| *Eleocharis macrostachya* | | | 45.230.01 | |
| *Eleocharis macrostachya - (Pleuropogon californicus)* | | | *45.230.07 | |
| *Eleocharis macrostachya - Callitriche hermaphroditica* | | | *45.230.02 | |
| *Eleocharis macrostachya - Eryngium aristulatum ssp. Parishii* | | | *45.230.04 | |

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| *Eleocharis macrostachya - Lasthenia glaberrima* | | | *45.230.05 | |
| *Eleocharis macrostachya - Marsilea vestita* | | | *45.230.06 | |
| *Eleocharis macrostachya - Sagittaria montevidensis* | | | *45.230.03 | |
| *Eleocharis acicularis* (Needle spike rush stands) Alliance | Needle spike rush stands | G4? S3? | *45.231.00 | |
| *Eleocharis acicularis - Eryngium castrense* | | | *45.231.01 | |
| *Navarretia spp. - (Eleocharis acicularis - Eryngium alismaefolium)* | | | *45.231.03 | |
| *Plagiobothrys mollis - (Eleocharis acicularis - Eryngium mathiasiae)* | | | *45.231.02 | |
| *Eryngium aristulatum* (California button-celery patches) Alliance | California button-celery patches | G3 S3? | *42.004.00 | |
| *Eryngium aristulatum - Lupinus bicolor* | | | *42.004.01 | |
| *Grindelia (stricta)* (Gum plant patches) Provisional Alliance | Gum plant patches | G3? S3? | *52.206.00 | |
| *Centromadia (pungens)* (Tar plant fields) Alliance | Tar plant fields | G2? S2? | *44.160.00 | |
| *Centromadia pungens - Downingia bella* | | | *44.160.02 | |
| *Centromadia pungens ssp. laevis* | | | *44.160.01 | |
| *Deinandra fasciculata* (Clustered tarweed fields) Alliance | Clustered tarweed fields | G3? S3? | *44.161.00 | |
| *Deinandra fasciculata - annual grass-herb* | | | *44.161.01 | |
| *Deinandra fasciculata - Hordeum depressum - Atriplex coronata var. notatior* | | | *44.161.02 | |
| *Lasthenia fremontii - Distichlis spicata* (Fremont's goldfields - Saltgrass alkaline vernal pools) Alliance | Fremont's goldfields - Saltgrass alkaline ver | G4 S3 | *44.119.00 | |
| *Lasthenia fremontii - Distichlis spicata* | | | *44.119.11 | |
| *Downingia bella - Lilaea scilloides* | | | *44.119.01 | |
| *Downingia cuspidata - Myosurus minimus* | | | *44.119.02 | |
| *Downingia insignis - Psilocarphus brevissimus* | | | *44.119.03 | |
| *Downingia pulchella - Cressa truxillensis* | | | *44.119.04 | |
| *Downingia pulchella - Distichlis spicata* | | | *44.119.05 | |
| *Lasthenia fremontii - Pleuropogon californicus* | | | *44.119.07 | |
| *Limnanthes douglasii ssp. rosea - Pleuropogon californicus* | | | *44.119.10 | |
| *Lasthenia platycarpha - Lepidium latipes* | | | *44.119.09 | |
| *Lasthenia glaberrima* (Smooth goldfields vernal pool bottoms) Alliance | Smooth goldfields vernal pool bottoms | G3 S3 | *44.140.00 | |
| *Lasthenia glaberrima - Atriplex persistens* | | | *44.119.08 | |
| *Lasthenia glaberrima - Downingia bicornuta* | | | *44.140.01 | |
| *Lasthenia glaberrima - Downingia insignis* | | | *44.140.05 | |
| *Lasthenia glaberrima - Lupinus bicolor* | | | *44.140.06 | |
| *Lasthenia glaberrima - Pleuropogon californicus* | | | *44.140.02 | |
| *Lasthenia glaberrima - Pogogyne douglasii* | | | *44.140.03 | |
| *Lasthenia glaberrima - Trifolium variegatum* | | | *44.140.04 | |
| *Layia fremontii - Achyrachaena mollis* (Fremont's tidy-tips - Blow wives vernal pools) Alliance | Fremont's tidy-tips - Blow wives vernal pool | G3 S3? | *42.002.00 | |
| *Layia fremontii - Achyrachaena mollis* | | | *42.002.01 | |
| *Layia fremontii - Lasthenia californica - Achyrachaena mollis* | | | *42.002.02 | |
| *Layia fremontii - Leontodon taraxacoides - Plagiobothrys greenei* | | | *42.002.03 | |
| *Plagiobothrys austina - Achyrachaena mollis* | | | *42.002.04 | |
| *Montia fontana - Sidalcea calycosa* (Water blinks - Annual checkerbloom vernal pools) Alliance | Water blinks - Annual checkerbloom vernal | G2 S2 | *44.113.00 | |
| *Montia fontana - Sidalcea calycosa* | | | *44.113.01 | |
| *Trifolium variegatum* (White-tip clover swales) Alliance | White-tip clover swales | G3? S3? | *42.005.00 | |
| *Trifolium gracilentum - Hesperevax caulescens* | | | *42.005.02 | |
| *Trifolium variegatum* | | | *42.005.01 | |
| *Trifolium variegatum - Lolium perenne - Leontodon taraxacoides* | | | *42.005.03 | |
| *Trifolium variegatum - Vulpia bromoides (Hypochaeris glabra - Leontodon taraxacoides)* | | | *42.005.04 | |
| *(Trifolium variegatum - Vulpia bromoides) - Hypochaeris glabra - Leontodon taraxacoides* | | | *42.005.05 | |
| Wet Montane Meadow | | G3 S3.2 | | *CTT45110CA |
| Freshwater Seep | | G4 S3.2 | | CTT45400CA |
| Montane Freshwater Marsh | | G3 S3.2 | | *CTT52430CA |
| Wet Supalpine or Alpine Meadow | | G3 S3.2 | | *CTT45210CA |
| *Bistorta bistortoides - Mimulus primuloides* (Western bistort - primrose monkey flower meadows) Alliance | Western bistort - primrose monkey flower m | G4 S4 | 45.413.00 | |
| *Bistorta bistortoides* | | | 45.413.02 | |
| *Camassia quamash* (Small camas meadows) Alliance | Small camas meadows | G4? S3? | *45.416.00 | |
| *Camassia quamash / Sphagnum subsecundum* | | | *45.416.01 | |
| *Carex (aquatilis, lenticularis)* (Water sedge and Lakeshore sedge meadows) Alliance | Water sedge and Lakeshore sedge meadow | G5 S3 | *45.168.00 | |
| *Carex aquatilis* | | | *45.168.01 | |
| *Carex aquatilis - Carex lenticularis* | | | *45.168.04 | |
| *Carex densa* (Dense sedge marshes) Provisional Alliance | Dense sedge marshes | G2? S2? | *45.165.00 | |
| *Carex densa - Juncus xiphioides* | | | *45.165.02 | |
| *Carex densa - Lolium perenne - Juncus spp.* | | | *45.165.03 | |
| *Carex lenticularis / Aulacomnium palustre* | | | *45.168.02 | |
| *Carex lenticularis / Perideridia parishii* | | | *45.168.03 | |
| *Carex nigricans* (Showy sedge sod) Provisional Alliance | Showy sedge sod | G4 S3? | *45.164.00 | |
| *Carex scopulorum* (Sierra alpine sedge turf) Alliance | Sierra alpine sedge turf | G4 S3 | *45.120.00 | |
| *Carex scopulorum* | | | *45.120.01 | |
| *Carex scopulorum - Allium validum* | | | *45.120.07 | |
| *Carex scopulorum - Eleocharis quinquefolia* | | | *45.120.04 | |
| *Carex scopulorum - Eriophorum crinigerum* | | | *45.120.03 | |
| *Carex scopulorum - Mimulus primuloides* | | | *45.120.08 | |

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| *Carex scopulorum - Pedicularis groenlandica* | | | *45.120.02 | |
| *Carex scopulorum / Aulacomnium palustre* | | | *45.120.06 | |
| *Carex scopulorum / Oreostemma alpigenum* | | | *45.120.05 | |
| *Carex (utriculata, vesicaria)* (Beaked sedge and blister sedge meadows) Alliance | Beaked sedge and blister sedge meadows | G5 S4 | 52.121.00 | |
| *Carex utriculata* | | | 52.120.01 | |
| *Carex utriculata - Mimulus primuloides* | | | 52.121.01 | |
| *Carex vesicaria* | | | 45.170.01 | |
| *Eleocharis quinqueflora* (Few-flowered spike rush marshes) Alliance | Few-flowered spike rush marshes | G4 S4 (some associations are of high priority for | 45.220.00 | |
| *Eleocharis quinqueflora* | | | 45.220.01 | |
| *Eleocharis quinqueflora - Mimulus primuloides* | | | *45.220.02 | |
| *Eleocharis quinqueflora / Aulacomnium palustre* | | | *45.220.03 | |
| *Eleocharis quinqueflora / Campylium stellatum* | | | *45.220.04 | |
| *Eleocharis quinqueflora / Drepanocladus aduncus - Drepanocladus sordidus* | | | *45.220.05 | |
| *Eleocharis quinqueflora / Philonotis fontana* | | | *45.220.06 | |
| *Glyceria (elata, striata)* (Manna grass meadows) Alliance | Manna grass meadows | G4 S3? | *41.222.00 | |
| *Glyceria elata* | | | *41.222.01 | |
| *Glyceria elata - Lotus oblongifolius* | | | *41.222.03 | |
| *Glyceria elata - Scirpus microcarpus* | | | *41.222.02 | |
| *Glyceria striata* | | | *41.222.04 | |
| *Glyceria occidentalis* (Northwest manna grass marshes) Provisional Alliance | Northwest manna grass marshes | G3? S3? | *41.223.00 | |
| *Oxypolis occidentalis (* Western cowbane meadows) Alliance | Western cowbane meadows | G3 S3 | *45.418.00 | |
| *Oxypolis occidentalis - Bistorta bistortoides* | | | *45.418.02 | |
| *Oxypolis occidentalis - Carex amplifolia* | | | *45.418.03 | |
| *Oxypolis occidentalis - Eleocharis montevidensis* | | | *45.418.04 | |
| *Oxypolis occidentalis - Senecio triangularis* | | | *45.418.05 | |
| *Oxypolis occidentalis / Philonotis fontana* | | | *45.418.06 | |
| *Senecio triangularis* (Herb-rich meadows) Alliance | Herb-rich meadows | G4 S4 | 45.419.00 | |
| *Senecio triangularis - Athyrium filix-femina* | | | 45.419.04 | |
| *Senecio triangularis - Lupinus latifolius* | | | 45.419.01 | |
| *Senecio triangularis-Lupinus polyphyllus* | | | 45.419.05 | |
| *Torreyochloa pallida* (Floating mats of weak manna grass) Alliance | Floating mats of weak manna grass | G3 S3? | *45.171.00 | |
| *Torreyochloa pallida* | | | *45.171.01 | |
| *Torreyochloa pallida - Isoetes bolanderi* | | | *45.171.02 | |
| *Carex barbarae* (White-root beds) Alliance | White-root beds | G2? S2? | *45.142.00 | |
| *Carex barbarae* | | | *45.142.01 | |
| *Carex nudata* (Torrent sedge patches) Alliance | Torrent sedge patches | G3 S3 | *45.182.00 | |
| *Carex nudata* | | | *45.182.01 | |
| *Carex serratodens* (Twotooth sedge seeps) Provisional Alliance | Twotooth sedge seeps | G3 S3? | *45.180.00 | |
| *Cirsium fontinale* (Fountain thistle seeps) Alliance | Fountain thistle seeps | G1 S1 | *42.100.00 | |
| *Cirsium fontinale var. campylon - Carex serratodens - Hordeum brachyantherum* | | | *42.100.01 | |
| *Cirsium fontinale var. campylon - Hemizonia congesta var. luzulifolia* | | | *42.100.02 | |
| *Cirsium fontinale var. campylon - Mimulus guttatus - Stachys pycnantha* | | | *42.100.03 | |
| *Juncus arcticus (var. balticus, mexicanus)* (Baltic and Mexican rush marshes) Alliance | Baltic and Mexican rush marshes | G5 S4 | 45.562.00 | |
| *Juncus arcticus var. balticus* | | | 45.562.07 | |
| *Juncus arcticus var. balticus* | | | 91.120.21 | |
| *Juncus arcticus var. balticus - Argentina egedii* | | | 45.562.05 | |
| *Juncus arcticus var. balticus - Carex praegracilis* | | | 45.562.04 | |
| *Juncus arcticus var. balticus - Conium maculatum* | | | 45.562.01 | |
| *Juncus arcticus var. balticus - Lepidium latifolium* | | | 45.562.06 | |
| *Juncus arcticus var. mexicanus* | | | 45.562.02 | |
| *Juncus (oxymeris, xiphioides)* (Iris-leaf rush seeps) Provisional Alliance | Iris-leaf rush seeps | G2? S2? | *45.568.00 | |
| *Leymus triticoides* (Creeping rye grass turfs) Alliance | Creeping rye grass turfs | G4 S3 | *41.080.00 | |
| Valley Wildrye Grassland | | G2 S2.1 | | *CTT42140CA |
| *Leymus triticoides* | | | *41.080.01 | |
| *Leymus triticoides - Anemopsis californica* | | | *41.080.05 | |
| *Leymus triticoides - Bromus spp. - Avena spp.* | | | *41.080.02 | |
| *Leymus triticoides - Carduus pycnocephalus - Geranium dissectum* | | | *41.080.04 | |
| *Leymus triticoides - Lolium perenne* | | | *41.080.03 | |
| *Leymus triticoides - Poa secunda* | | | *41.080.06 | |
| *Mimulus (guttatus)* (Common monkey flower seeps) Alliance | Common monkey flower seeps | G4? S3? | *44.111.00 | |
| *Mimulus guttatus* | | | *44.111.01 | |
| *Mimulus guttatus - (Mimulus spp.)* | | | *44.111.03 | |
| *Mimulus guttatus - Vulpia microstachys* | | | *44.111.02 | |
| *Mimulus lewisii* | | | *44.111.04 | |
| *Mimulus primuloides* | | | *45.413.03 | |
| *Muhlenbergia rigens* (Deer grass beds) Alliance | Deer grass beds | G3 S2? | *41.278.00 | |
| *Muhlenbergia rigens* | | | *41.278.01 | |
| *Lepidium latifolium* (Perennial pepper weed patches) Semi-natural Stands | Perennial pepper weed patches | | 52.205.00 | Invasive sp ranking: Cal-IPC rank: High; |
| *Lepidium latifolium* | | | 52.205.02 | Invasive sp ranking: Cal-IPC rank: High; |
| *Lepidium latifolium - Distichlis spicata.* | | | 52.205.01 | |

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| *Persicaria lapathifolia - Xanthium strumarium* (Smartweed - cocklebur patches) Provisional Alliance | Smartweed - cocklebur patches | G4 S4 | 42.207.00 | | |
| *Distichlis spicata* (Salt grass flats) Alliance | Salt grass flats | G5 S4 (some associations are of high priority for | 41.200.00 | | |
| *Distichlis spicata - Agrostis viridis* | | | 41.200.14 | | |
| *Distichlis spicata - Ambrosia chamissonis* | | | *41.200.11 | | |
| *Distichlis spicata - Atriplex triangularis* | | | 41.200.15 | | |
| *Distichlis spicata - Bromus diandrus* | | | 41.200.16 | | |
| *Distichlis spicata - Cotula coronopifolia* | | | 41.200.17 | | |
| *Distichlis spicata - Frankenia salina - Jaumea carnosa* | | | *41.200.07 | | |
| *Distichlis spicata - Hordeum murninum* | | | 41.200.18 | | |
| *Distichlis spicata - Jaumea carnosa* | | | *41.200.06 | | |
| *Distichlis spicata - Juncus arcticus ssp. balticus (J. arcticus ssp. mexicanus)* | | | 41.200.05 | | |
| *Distichlis spicata - Juncus cooperi* | | | *41.200.02 | | |
| *Distichlis spicata - Leymus triticoides / Lupinus (albifrons, arboreus)* | | | 41.200.19 | | |
| *Distichlis spicata - Parapholis strigosa* | | | 41.200.10 | | |
| *Distichlis spicata - Sarcocornia pacifica* | | | *41.200.20 | | |
| *Distichlis spicata / Allenrolfea occidentalis* | | | *41.200.01 | | |
| *Distichlis spicata / annual grasses* | | | 41.200.13 | | |
| *Distichlis spicata / Chrysothamnus albidus* | | | *41.200.04 | | |
| *Distichlis spicata / Sarcobatus vermiculatus* | | | *41.200.03 | | |
| *Bulboschoenus maritimus* (Salt marsh bulrush marshes) Alliance | Salt marsh bulrush marshes | G4 S3 | *52.112.00 | | |
| *Bolboschoenus maritimus* | | | *52.112.03 | | |
| *Bolboschoenus maritimus / Sarcocornia pacifica (depressa)* | | | *52.112.04 | | |
| *Bolboschoenus maritimus / Sesuvium verrucosum* | | | *52.112.05 | | |
| *Sarcocornia pacifica (Salicornia depressa)* (Pickleweed mats) Alliance | Pickleweed mats | G4 S3 | *52.215.00 | | |
| *Sarcocornia pacific - Lepidium latifolium* | | | *52.215.12 | | |
| *Sarcocornia pacifica* | | | *52.215.04 | | |
| *Sarcocornia pacifica - Jaumea carnosa - Batis maritima* | | | *52.215.22 | | |
| *Sarcocornia pacifica - Atriplex prostrata* | | | *52.215.06 | | |
| *Sarcocornia pacifica - Bolboschoenus maritimus* | | | *52.215.07 | | |
| *Sarcocornia pacifica - Brassica nigra* | | | *52.215.15 | | |
| *Sarcocornia pacifica - Cotula coronopifolia* | | | *52.215.16 | | |
| *Sarcocornia pacifica - Crypsis schoenoides* | | | *52.215.17 | | |
| *Sarcocornia pacifica - Cuscuta salina - Spartina densiflora* | | | *52.215.01 | | |
| *Sarcocornia pacifica - Distichlis spicata* | | | *52.215.02 | | |
| *Sarcocornia pacifica - Echinochloa crus-galli - Polygonum - Xanthium strumarium* | | | *52.215.18 | | |
| *Sarcocornia pacifica - Frankenia salina* | | | *52.215.09 | | |
| *Sarcocornia pacifica - Frankenia salina - Suaeda taxifolia* | | | *52.215.21 | | |
| *Sarcocornia pacifica - Grindelia stricta* | | | *52.215.10 | | |
| *Sarcocornia pacifica - Jaumea carnosa* | | | *52.215.11 | | |
| *Sarcocornia pacifica - Jaumea carnosa - Distichlis spicata* | | | *52.215.03 | | |
| *Sarcocornia pacifica - Sesuvium verrucosum* | | | *52.215.20 | | |
| *Sarcocornia pacifica - Spartina foliosa* | | | *52.215.13 | | |
| *Sarcocornia pacifica / algae* | | | *52.215.14 | | |
| *Sarcocornia pacifica/annual grasses (Polypogon, Hordeum, Lolium)* | | | *52.215.19 | | |
| *Spartina foliosa* (California cordgrass marsh) Alliance | California cordgrass marsh | G3 S3 | *52.020.00 | | |
| *Spartina foliosa* | | | *52.020.02 | | |
| *Spartina foliosa - Sarcocornia pacifica* | | | *52.020.01 | | |
| *Spartina (alterniflora, densiflora)* (Smooth or Chilean cordgrass marshes) Semi-natural Stands | Smooth or Chilean cordgrass marshes | | *41.070.00 | | |
| *Spartina densiflora* | | | 41.070.02 | | |
| *Sesuvium verrucosum* (Western sea-purslane marshes) Alliance | Western sea-purslane marshes | G3? S2 | *52.210.00 | | |
| *Sesuvium verrucosum* | | | *52.210.01 | | |
| *Sesuvium verrucosum - Cotula coronopifolia* | | | *52.210.02 | | |
| *Sesuvium verrucosum - Distichlis spicata* | | | *52.210.03 | | |
| *Sesuvium verrucosum - Lolium perenne* | | | *52.210.04 | | |
| *Atriplex prostrata - Cotula coronopifolia* (Fields of fat hen and brass buttons) Semi-natural Stands | Fields of fat hen and brass buttons | | 52.211.00 | | Invasive sp ranking: Not listed. |
| *Atriplex prostrata* | | | 52.211.01 | | |
| *Atriplex prostrata / annual grasses* | | | 52.211.02 | | |
| *Atriplex prostrata / Distichlis spicata* | | | 52.211.03 | | |
| *Atriplex prostrata / Schoenoplectus maritimus* | | | 52.211.04 | | |
| *Atriplex prostrata / Sesuvium verrucosum* | | | 52.211.05 | | |
| *Cotula coronopifolia* | | | 52.211.06 | | |
| Coastal Brackish Marsh | | G2 S2.1 | | *CTT52200CA | |
| Northern Coastal Salt Marsh | | G3 S3.2 | | *CTT52110CA | |
| Southern Coastal Salt Marsh | | G2 S2.1 | | *CTT52120CA | |
| *Sarcobatus vermiculatus* (Greasewood scrub) Alliance | Greasewood scrub | G5 S4 (some associations are of high priority for | *36.400.00 | | |
| Desert Greasewood Scrub | | G4 S3.2 | | CTT36130CA | |
| *Sarcobatus vermiculatus* | | | 36.400.01 | | |
| *Sarcobatus vermiculatus - Atriplex confertifolia* | | | *36.400.02 | | |
| Alkali Meadow | | G3 S2.1 | | *CTT45310CA | |
| Alkali Seep | | G3 S2.1 | | *CTT45320CA | |

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| Cismontane Alkali Marsh | | G1 S1.1 | | *CTT52310CA |
| Desert Sink Scrub | | G4 S3.1 | | CTT36120CA |
| Transmontane Alkali Marsh | | G3 S2.1 | | *CTT52320CA |
| *Anemopsis californica* (Yerba mansa meadows) Alliance | Yerba mansa meadows | G3 S2? | *52.214.00 | |
| *Anemopsis californica - Juncus arcticus var. mexicanus* | | | *52.214.01 | |
| *Juncus cooperi* (Cooper's rush marsh) Alliance | Cooper's rush marsh | G3 S3 | *45.563.00 | |
| *Juncus cooperi* | | | *45.563.01 | |
| *Schoenoplectus americanus* (American bulrush marsh) Alliance | American bulrush marsh | G5 S3 | *52.111.00 | |
| *Schoenoplectus americanus* | | | *52.111.04 | |
| *Schoenoplectus americanus - Eleocharis rostellata* | | | *52.111.05 | |
| *Schoenoplectus americanus / Argentina egedii* | | | *52.111.02 | |
| *Schoenoplectus americanus / Lepidium latifolium* | | | *52.111.03 | |
| *Schoenoplectus americanus / Schoenoplectus californicus - Schoenoplectus acutus* | | | *52.111.06 | |
| *Spartina gracilis (* Alkali cordgrass marsh) Alliance | Alkali cordgrass marsh | GU S1 | *52.030.00 | |
| *Spartina gracilis - Sporobolus airoides* | | | *52.030.01 | |
| *Sporobolus airoides* (Alkali sacaton grassland) Alliance | Alkali sacaton grassland | G4 S2 | *41.010.00 | |
| Valley Sacaton Grassland | | G1 S1.1 | | *CTT42120CA |
| *Sporobolus airoides* | | | *41.010.01 | |
| *Sporobolus airoides / Allenrolfea occidentalis* | | | *41.010.03 | |
| *Sporobolus airoides / Ericameria nauseosa* | | | *41.010.02 | |
| *Allenrolfea occidentalis* (Iodine bush scrub) Alliance | Iodine bush scrub | G4 S3 | *36.120.00 | |
| Valley Sink Scrub | | G1 S1.1 | | CTT36210CA |
| *Allenrolfea occidentalis* | | | *36.120.04 | |
| *Allenrolfea occidentalis - Sporobolus airoides* | | | *36.120.03 | |
| *Allenrolfea occidentalis - Suaeda moquinii* | | | *36.120.02 | |
| *Arthrocnemum subterminale* (Parish's glasswort patches) Alliance | Parish's glasswort patches | G4 S2 | *52.212.00 | |
| *Arthrocnemum subterminale* | | | *52.212.01 | |
| *Arthrocnemum subterminale - Monanthocloe littoralis* | | | *52.212.03 | |
| *Arthrocnemum subterminale - Sarcocornia pacifica* | | | *52.212.02 | |
| *Atriplex lentiformis* (Quailbush scrub) Alliance | Quailbush scrub | G4 S4 | 36.370.00 | |
| *Atriplex lentiformis* | | | 36.370.01 | |
| *Atriplex spinifera* (Spinescale scrub) Alliance | Spinescale scrub | G3 S3 | *36.350.00 | |
| Relictual Interior Dunes | | G1 S1.1 | | *CTT23200CA |
| Stabilized Interior Dunes | | G1 S1.1 | | *CTT23100CA |
| Valley Saltbush Scrub | | G2 S2.1 | | *CTT36220CA |
| *Atriplex spinifera* | | | *36.350.01 | |
| *Atriplex spinifera - Picrothamnus desertorum* | | | *36.350.03 | |
| *Atriplex spinifera / annual herb* | | | *36.350.02 | |
| *Cressa truxillensis - Distichlis spicata* (Alkali weed - Salt grass playas and sinks) Alliance | Alkali weed - Salt grass playas and sinks | G4 S4 | 46.100.00 | |
| *Chamaesyce hooveri - Bolboschoenus maritimus* | | | 46.100.02 | |
| *Neostapfia colusana - Malvella leprosa* | | | 46.100.03 | |
| *Neostapfia colusana - Polypogon maritimus* | | | 46.100.04 | |
| *Orcuttia pilosa* | | | 46.100.05 | |
| *Hordeum (depressum, murinum spp. leporinum)* | | | 44.119.06 | |
| *Frankenia salina* (Alkali heath marsh) Alliance | Alkali heath marsh | G4 S3 | *52.500.00 | |
| *Frankenia salina* | | | *52.500.02 | |
| *Frankenia salina - Limonium californicum - Monanthochloe littoralis - Sarcocornia pacifica* | | | *52.500.01 | |
| *Frankenia salina / Agrostis avenacea* | | | *52.500.03 | |
| *Frankenia salina / Distichlis spicata* | | | *52.500.04 | |
| *Suaeda taxifolia / Hordeum murinum* | | | *52.500.06 | |
| *Suaeda moquinii* (Bush seepweed scrub) Alliance | Bush seepweed scrub | G5 S3 | *36.200.00 | |
| *Suaeda moquinii* | | | *36.200.01 | |
| *Suaeda moquinii - Allenrolfea occidentalis* | | | *36.200.02 | |
| *Suaeda moquinii - Atriplex canescens* | | | *36.200.03 | |
| Sonoran Mixed Woody Scrub | | G3 S3.2 | | *CTT33210CA |
| Mojave Mixed Woody and Succulent Scrub | | G3 S3.2 | | *CTT34240CA |
| Mojave Mixed Woody Scrub | | G3 S3.2 | | *CTT34210CA |
| Mojave Mixed Steppe | | G3 S2.2 | | *CTT34220CA |
| *Ambrosia dumosa* (White bursage scrub) Alliance | White bursage scrub | G5 S4 (some associations are of high priority for | 33.060.00 | |
| *Ambrosia dumosa* | | | *33.060.02 | |
| *Ambrosia dumosa - Acamptopappus sphaerocephalus* | | | *33.060.01 | |
| *Ambrosia dumosa - Atriplex hymenolytra* | | | 33.060.03 | |
| *Ambrosia dumosa - Encelia farinosa* | | | 33.060.06 | |
| *Ambrosia dumosa - Ephedra californica / sandy* | | | 33.060.07 | |
| *Ambrosia dumosa - Olneya tesota - Calliandra eriophylla* | | | 33.060.09 | |
| *Ambrosia dumosa / Pleuraphis rigida* | | | *33.060.04 | |
| *Ambrosia salsola* (Cheesebush scrub) Alliance | Cheesebush scrub | G5 S4 (some associations are of high priority for | 33.200.00 | |
| *Ambrosia salsola* | | | 33.200.01 | |
| *Ambrosia salsola - Ambrosia eriocentra* | | | *33.200.06 | |
| *Ambrosia salsola - Atriplex confertifolia* | | | 33.200.04 | |

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| *Ambrosia salsola - Bebbia juncea* | | | 33.200.05 | |
| *Ambrosia salsola - Brickellia incana* | | | 33.200.07 | |
| *Ambrosia salsola - Eriogonum fasciculatum* | | | 33.200.02 | |
| *Ambrosia salsola - Larrea tridentata* | | | 33.200.10 | |
| *Ambrosia salsola - Psorothamnus schottii* | | | 33.200.09 | |
| *Ambrosia salsola - Senna armata* | | | 33.200.08 | |
| *Ambrosia salsola -Petalonyx thurberi* | | | 33.200.11 | |
| *Atriplex polycarpa* (Allscale scrub) Alliance | Allscale scrub | G5 S4 | 36.340.00 | |
| Sierra Tehachapi Saltbush Scrub | | G2 S2.1 | | *CTT36310CA |
| Interior Coast Range Saltbush Scrub | | G2 S2.1 | | *CTT36320CA |
| Desert Saltbush Scrub | | G4 S3.2 | | CTT36110CA |
| *Atriplex polycarpa* | | | 36.340.04 | |
| *Atriplex polycarpa - Atriplex confertifolia* | | | 36.340.01 | |
| *Atriplex polycarpa sparse playa* | | | 36.340.05 | |
| *Encelia farinosa* (Brittle bush scrub) Alliance | Brittle bush scrub | G5 S4 (some associations are of high priority for | 33.030.00 | |
| *Encelia farinosa - coastal sage scrub* | | | 33.030.05 | |
| *Encelia farinosa - warm desert* | | | 33.030.01 | |
| *Encelia farinosa - Ambrosia dumosa - Fouquieria splendens* | | | 33.030.07 | |
| *Encelia farinosa - Ambrosia dumosa - Salvia greatae* | | | 33.030.08 | |
| *Encelia farinosa - Ambrosia dumosa - Senna armata* | | | 33.030.09 | |
| *Encelia farinosa - Artemisia californica* | | | 33.030.04 | |
| *Encelia farinosa - Eriogonum fasciculatum - Agave deserti* | | | *33.030.03 | |
| *Encelia farinosa - Mirabilis californica* | | | 33.030.06 | |
| *Encelia farinosa - Peucephyllum schottii* | | | *33.030.02 | |
| *Larrea tridentata* (Creosote bush scrub) Alliance | Creosote bush scrub | G5 S5 (some associations are of high priority for | 33.010.00 | |
| *Larrea tridentata* | | | 33.140.04 | |
| *Larrea tridentata - Atriplex confertifolia* | | | 33.010.17 | |
| *Larrea tridentata - Atriplex hymenelytra* | | | 33.010.16 | |
| *Larrea tridentata - Atriplex polycarpa* | | | 33.010.12 | |
| *Larrea tridentata - Ephedra nevadensis* | | | 33.010.10 | |
| *Larrea tridentata - Krameria grayi - Pleuraphis rigida* | | | *33.010.07 | |
| *Larrea tridentata - Pleuraphis rigida* | | | *33.010.13 | |
| *Larrea tridentata - Pleuraphis rigida - Lycium andersonii* | | | *33.010.14 | |
| *Larrea tridentata / cryptogamic crust* | | | 33.010.19 | |
| *Larrea tridentata / Eriogonum inflatum* | | | 33.010.09 | |
| *Larrea tridentata / wash* | | | 33.010.06 | |
| *Larrea tridentata - Ambrosia salsola* | | | 33.010.08 | |
| *Larrea tridentata - Ambrosia dumosa* (Creosote bush - white burr sage scrub) Alliance | Creosote bush - white burr sage scrub | G5 S5 (some associations are of high priority for | 33.140.00 | |
| Sonoran Creosote Bush Scrub | | G4 S4 | | CTT33100CA |
| Mojave Creosote Bush Scrub | | G4 S4 | | CTT34100CA |
| *Larrea tridentata - Ambrosia dumosa* | | | 33.140.42 | |
| *Larrea tridentata - Ambrosia dumosa - / Atriplex hymenelytra* | | | 33.140.09 | |
| *Larrea tridentata - Ambrosia dumosa - Amphipappus fremontii* | | | 33.140.40 | |
| *Larrea tridentata - Ambrosia dumosa - Atriplex canescens* | | | 33.140.37 | |
| *Larrea tridentata - Ambrosia dumosa - Atriplex confertifolia* | | | 33.140.39 | |
| *Larrea tridentata - Ambrosia dumosa - Atriplex confertifolia - Psorothamnus arborescens* | | | 33.140.45 | |
| *Larrea tridentata - Ambrosia dumosa - Atriplex polycarpa* | | | 33.140.38 | |
| *Larrea tridentata - Ambrosia dumosa - Bebbia juncea* | | | 33.140.36 | |
| *Larrea tridentata - Ambrosia dumosa - Cylindropuntia acanthocarpa* | | | 33.140.46 | |
| *Larrea tridentata - Ambrosia dumosa - Cylindropuntia ramosissima* | | | 33.140.18 | |
| *Larrea tridentata - Ambrosia dumosa - Echinocactus polycephalus* | | | *33.140.33 | |
| *Larrea tridentata - Ambrosia dumosa - Encelia farinosa* | | | 33.140.32 | |
| *Larrea tridentata - Ambrosia dumosa - Encelia virginensis* | | | *33.140.31 | |
| *Larrea tridentata - Ambrosia dumosa - Ephedra californica* | | | *33.140.30 | |
| *Larrea tridentata - Ambrosia dumosa - Ephedra funerea* | | | *33.140.29 | |
| *Larrea tridentata - Ambrosia dumosa - Ephedra nevadensis* | | | 33.140.20 | |
| *Larrea tridentata - Ambrosia dumosa - Ephedra viridis* | | | 33.140.47 | |
| *Larrea tridentata - Ambrosia dumosa - Ericameria cooperi* | | | 33.140.48 | |
| *Larrea tridentata - Ambrosia dumosa - Eriogonum fasciculatum* | | | 33.140.28 | |
| *Larrea tridentata - Ambrosia dumosa - Eriogonum inflatum* | | | 33.140.27 | |
| *Larrea tridentata - Ambrosia dumosa - Fouquieria splendens* | | | 33.140.44 | |
| *Larrea tridentata - Ambrosia dumosa - Galium angustifolium - Lyrocarpa coulteri* | | | *33.140.10 | |
| *Larrea tridentata - Ambrosia dumosa - Grayia spinosa* | | | 33.140.26 | |
| *Larrea tridentata - Ambrosia dumosa - Gutierrezia sarothrae* | | | 33.140.25 | |
| *Larrea tridentata - Ambrosia dumosa - Krameria erecta* | | | 33.140.23 | |
| *Larrea tridentata - Ambrosia dumosa - Krameria grayii* | | | 33.140.22 | |
| *Larrea tridentata - Ambrosia dumosa - Lepidium fremontii* | | | 33.140.21 | |
| *Larrea tridentata - Ambrosia dumosa - Lycium andersonii* | | | 33.140.19 | |
| *Larrea tridentata - Ambrosia dumosa - Olneya tesota* | | | 33.140.49 | |
| *Larrea tridentata - Ambrosia dumosa - Opuntia basilaris* | | | 33.140.43 | |

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| *Larrea tridentata - Ambrosia dumosa - Petalonyx thurberi* | | | *33.140.24 | |
| *Larrea tridentata - Ambrosia dumosa - Pleuraphis rigida* | | | *33.140.17 | |
| *Larrea tridentata - Ambrosia dumosa - Psorothamnus arborescens* | | | 33.140.15 | |
| *Larrea tridentata - Ambrosia dumosa - Psorothamnus emoryi - sandy* | | | *33.140.08 | |
| *Larrea tridentata - Ambrosia dumosa - Psorothamnus fremontii* | | | 33.140.16 | |
| *Larrea tridentata - Ambrosia dumosa - Psorothamnus schottii* | | | *33.140.07 | |
| *Larrea tridentata - Ambrosia dumosa - Psorothamnus spinosus* | | | 33.140.50 | |
| *Larrea tridentata - Ambrosia dumosa - Salazaria mexicana* | | | 33.140.14 | |
| *Larrea tridentata - Ambrosia dumosa - Senna armata* | | | 33.140.13 | |
| *Larrea tridentata - Ambrosia dumosa - Viguiera parishii* | | | 33.140.12 | |
| *Larrea tridentata - Ambrosia dumosa - Yucca schidigera* | | | 33.140.11 | |
| *Larrea tridentata - Ambrosia dumosa / Crytogrammic crust* | | | *33.140.35 | |
| *Larrea tridentata - Ambrosia dumosa / Dalea mollissima* | | | *33.140.34 | |
| *Larrea tridentata - Encelia farinosa* (Creosote bush - brittle bush scrub) Alliance | Creosote bush - brittle bush scrub | G5 S4 | 33.027.00 | |
| *Larrea tridentata - Encelia farinosa* | | | 33.027.05 | |
| *Larrea tridentata - Encelia farinosa - Ambrosia dumosa* | | | 33.027.03 | |
| *Larrea tridentata - Encelia farinosa - Bebbia juncea* | | | 33.027.02 | |
| *Larrea tridentata - Encelia farinosa - Fouquieria splendens* | | | 33.027.04 | |
| *Larrea tridentata - Encelia farinosa - Peucephyllum schottii* | | | 33.027.06 | |
| *Larrea tridentata - Encelia farinosa - Pleurocoronis pluriseta* | | | 33.027.07 | |
| Sonoran Mixed Woody and Succulent Scrub | | G4 S3.2 | | CTT33220CA |
| *Cylindropuntia bigelovii* (Teddy bear cholla patches) Alliance | Teddy bear cholla patches | G4 S3 | *33.050.00 | |
| *Cylindropuntia bigelovii* | | | *33.050.01 | |
| *Pleuraphis rigida* (Big galleta shrub-steppe) Alliance | Big galleta shrub-steppe | G3 S2 | *41.030.00 | |
| *Pleuraphis rigida* | | | *41.030.01 | |
| *Pleuraphis rigida - Dalea mollissima* | | | *41.030.04 | |
| *Pleuraphis rigida / Acamptopappus sphaerocephalus* | | | *41.030.02 | |
| *Pleuraphis rigida / Ambrosia dumosa* | | | *41.030.06 | |
| *Pleuraphis rigida / Atriplex canescens* | | | *41.030.05 | |
| *Pleuraphis rigida / Ephedra californica* | | | *41.030.07 | |
| *Pleuraphis rigida / Ericameria cooperi* | | | *41.030.03 | |
| *Pleuraphis rigida / Larrea tridentata* | | | *41.030.08 | |
| *Tidestromia oblongifolia* (Arizona honey sweet sparse scrub) Provisional Alliance | Arizona honey sweet sparse scrub | G3 S3 | *33.330.00 | |
| *Parkinsonia microphylla* (Foothill palo verde desert scrub) Alliance | Foothill palo verde desert scrub | G4 S1 | *33.150.00 | |
| Arizonan Woodland | | G3 S1.2 | | *CTT75400CA |
| *Prunus fremontii* (Desert apricot scrub) Alliance | Desert apricot scrub | G4 S3 | *33.220.00 | |
| *Prunus fremontii* | | | *33.220.01 | |
| *Simmondsia chinensis* (Jojoba scrub) Provisional Alliance | Jojoba scrub | G4 S3? | *33.005.00 | |
| *Simmondsia chinensis - Eriogonum fasciculatum - Opuntia parryi* | | | *33.005.01 | |
| *Tetracoccus hallii* (Hall's shrubby-spurge patches) Provisional Alliance | Hall's shrubby-spurge patches | G2 S1 | *33.350.00 | |
| *Viguiera parishii* (Parish's goldeneye scrub) Alliance | Parish's goldeneye scrub | G4 S4 (some associations are of high priority for | 33.032.00 | |
| *Viguiera parishii* | | | 33.032.03 | |
| *Viguiera parishii - Agave deserti* | | | *33.032.01 | |
| *Viguiera parishii - Encelia farinosa* | | | 33.032.04 | |
| *Viguiera parishii - Eriogonum fasciculatum* | | | 33.032.02 | |
| *Viguiera parishii - Salvia dorrii* | | | *33.032.05 | |
| *Ziziphus obtusifolia* (Graythorn patches) Special Stands | Graythorn patches | G2 S2? | *33.225.00 | |
| *Menodora spinescens* (Spiny menodora scrub) Alliance | Spiny menodora scrub | G4 S3 | *33.290.00 | |
| *Menodora spinescens - Atriplex confertifolia* | | | *33.290.01 | |
| *Menodora spinescens - Ephedra nevadensis* | | | *33.290.02 | |
| *Salazaria mexicana* (Bladder sage scrub) Alliance | Bladder sage scrub | G4 S4 | 33.310.00 | |
| *Salazaria mexicana* | | | 33.310.01 | |
| *Salazaria mexicana - Ambrosia salsola - Eriogonum fasciculatum* | | | 33.310.03 | |
| *Salazaria mexicana - Viguieria reticulata - Atriplex confertifolia* | | | 33.310.02 | |
| *Yucca brevifolia* (Joshua tree woodland) Alliance | Joshua tree woodland | G4 S3 | *33.170.00 | |
| Joshua Tree Woodland | | G4 S3.2 | | CTT73000CA |
| *Yucca brevifolia* | | | *33.170.01 | |
| *Yucca brevifolia / Ephedra nevadensis* | | | *33.170.20 | |
| *Yucca brevifolia / Yucca baccata / Pleuraphis jamesii* | | | *33.170.18 | |
| *Yucca brevifolia / Artemisia tridentata - Atriplex confertifolia* | | | *33.170.04 | |
| *Yucca brevifolia / Coleogyne ramosissima* | | | *33.170.02 | |
| *Yucca brevifolia / Cylindropuntia acanthocarpa* | | | *33.170.06 | |
| *Yucca brevifolia / Gutierrezia microcephala / Pleuraphis rigida* | | | *33.170.14 | |
| *Yucca brevifolia / Juniperus californica / Coleogyne ramosissima* | | | *33.170.03 | |
| *Yucca brevifolia / Juniperus californica / Ephedra nevadensis* | | | *33.170.19 | |
| *Yucca brevifolia / Larrea tridentata - Yucca schidigera* | | | *33.170.10 | |
| *Yucca brevifolia / Larrea tridentata - Ambrosia dumosa - Eriogonum fasciculatum* | | | *33.170.11 | |
| *Yucca brevifolia / Larrea tridentata - Pleuraphis rigida* | | | *33.170.15 | |
| *Yucca brevifolia / Lycium andersonii* | | | *33.170.08 | |
| *Yucca brevifolia / Pleuraphis (rigida, jamesii)* | | | *33.170.07 | |

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| *Yucca brevifolia / Pleuraphis rigida* | | | *33.170.16 | |
| *Yucca brevifolia / Pleuraphis rigida - Muhlenbergia porteri* | | | *33.170.17 | |
| *Yucca brevifolia / Prunus fasciculata* | | | *33.170.13 | |
| *Yucca brevifolia / Salazaria mexicana* | | | *33.170.09 | |
| *Yucca schidigera* (Mojave yucca scrub) Alliance | Mojave yucca scrub | G4 S4 (some associations are of high priority for | 33.070.00 | |
| Mojave Yucca Scrub and Steppe | | G3 S3.2 | | *CTT34230CA |
| *Yucca schidigera* | | | 33.070.01 | |
| *Yucca schidigera - Ambrosia dumosa* | | | 33.070.03 | |
| *Yucca schidigera - Coleogyne ramosissima* | | | 33.070.04 | |
| *Yucca schidigera - Cylindropuntia acanthocarpa* | | | *33.070.08 | |
| *Yucca schidigera - Ephedra nevadensis* | | | 33.070.02 | |
| *Yucca schidigera - Eriogonum fasciculatum* | | | 33.070.07 | |
| *Yucca schidigera - Larrea tridentata - Agave deserti* | | | *33.070.11 | |
| *Yucca schidigera - Larrea tridentata - Ambrosia dumosa* | | | 33.070.05 | |
| *Yucca schidigera - Larrea tridentata - Ephedra nevadensis* | | | 33.070.06 | |
| *Yucca schidigera - Larrea tridentata - Simmondsia chinensis* | | | *33.070.10 | |
| *Yucca schidigera - Viguiera parishii* | | | 33.070.09 | |
| *Yucca schidigera / Pleuraphis rigida* | | | 33.070.12 | |
| *Coreopsis gigantea* (Giant coreopsis scrub) Alliance | Giant coreopsis scrub | G3 S3? | *43.100.00 | |
| *Coreopsis gigantea - Artemisia californica - Eriogonum cinereum* | | | *43.100.01 | |
| *Coreopsis gigantea - Ericameria ericoides - Encelia californica* | | | *43.100.02 | |
| *Lycium californicum* (California desert-thorn) Provisional Alliance | California desert-thorn | G2? S2? | *33.365.00 | |
| *Opuntia littoralis* (Coast prickly pear scrub) Alliance | Coast prickly pear scrub | G4 S3 | *32.150.00 | |
| Maritime Succulent Scrub | | G2 S1.1 | | *CTT32400CA |
| *Opuntia littoralis - Eriogonum fasciculatum - Malosma laurina* | | | *32.150.01 | |
| *Opuntia littoralis - mixed coastal sage scrub* | | | *32.150.02 | |
| *Bursera microphylla* (Elephant tree stands) Special Stands | Elephant tree stands | G4 S1 | *33.120.00 | |
| Elephant Tree Woodland | | G3 S1.2 | | *CTT75100CA |
| Desert Dry Wash Woodland | | G3 S3.2 | | *CTT62200CA |
| Mojave Wash Scrub | | G3 S3.2 | | *CTT34250CA |
| Mojave Desert Wash Scrub | | G3 S3.2 | | *CTT63700CA |
| *Acacia greggii* (Catclaw acacia thorn scrub) Alliance | Catclaw acacia thorn scrub | G5 S4 (some associations are of high priority for | 33.040.00 | |
| *Acacia greggii - Ambrosia eriocentra* | | | *33.040.08 | |
| *Acacia greggii - Ambrosia salsola* | | | 33.040.05 | |
| *Acacia greggii - annual herbs (Bromus rubens)* | | | 33.040.02 | |
| *Acacia greggii - Bebbia juncea* | | | 33.040.10 | |
| *Acacia greggii - Encelia virginensis* | | | 33.040.12 | |
| *Acacia greggii - Eriogonum fasciculatum* | | | 33.040.13 | |
| *Acacia greggii - Hyptis emoryi* | | | 33.040.03 | |
| *Acacia greggii - Prunus fasciculata* | | | 33.040.07 | |
| *Acacia greggii - Salvia dorrii* | | | 33.040.09 | |
| *Acacia greggii - Viguiera parishii* | | | 33.040.06 | |
| *Acacia greggii / Eriogonum nudum var. pauciflorum* | | | *33.040.11 | |
| *Acacia greggii wash (Justicia californica)* | | | 33.040.01 | |
| *Ephedra californica* (California joint fir scrub) Alliance | California joint fir scrub | G3 S3 | *33.270.00 | |
| Monvero Residual Dunes | | G1 S1.2 | | *CTT23300CA |
| *Ephedra californica* | | | *33.270.01 | |
| *Ephedra californica - Ambrosia salsola* | | | *33.270.02 | |
| *Ephedra californica - Gutierrezia californica / Eriastrum pluriflorum* | | | *33.270.04 | |
| *Ephedra californica / annual - perennial herb* | | | *33.270.03 | |
| *Ericameria paniculata* (Black-stem rabbitbrush scrub) Alliance | Black-stem rabbitbrush scrub | G4 S3 | *35.340.00 | |
| *Ericameria paniculata* | | | *35.340.01 | |
| *Ericameria paniculata - Ambrosia eriocentra* | | | *35.340.03 | |
| *Ericameria paniculata - Ambrosia salsola* | | | *35.340.02 | |
| *Ericameria parryi* (Parry's rabbitbrush scrub) Alliance | Parry's rabbitbrush scrub | G4 S3 | *35.340.00 | |
| *Ericameria parryi / Gayophytum diffusum* | | | *35.320.01 | |
| *Lepidospartum squamatum* (Scale broom scrub) Alliance | Scale broom scrub | G3 S3 | *32.070.00 | |
| *Lepidospartum squamatum - Artemisia californica* | | | *32.070.09 | |
| *Lepidospartum squamatum - Atriplex canescens* | | | *32.070.04 | |
| *Lepidospartum squamatum - Baccharis salicifolia* | | | *32.070.05 | |
| *Lepidospartum squamatum - Eriodictyon crassifolium - Hesperoyucca whipplei* | | | *32.070.02 | |
| *Lepidospartum squamatum - Eriodictyon trichocalyx - Hesperoyucca whipplei* | | | *32.070.08 | |
| *Lepidospartum squamatum - Eriogonum fasciculatum* | | | *32.070.06 | |
| *Lepidospartum squamatum / Amsinckia menziesii* | | | *32.070.07 | |
| *Lepidospartum squamatum / ephemeral annuals* | | | *32.070.03 | |
| *Prunus fasciculata* (Desert almond scrub) Alliance | Desert almond scrub | G4 S3 | *33.300.00 | |
| *Prunus fasciculata* | | | *33.300.01 | |
| *Prunus fasciculata - (Viguiera reticulata - Mortonia utahensis) limestone* | | | *33.300.06 | |
| *Prunus fasciculata - Ambrosia eriocentra* | | | *33.300.05 | |
| *Prunus fasciculata - Purshia stansburiana* | | | *33.300.04 | |

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| *Prunus fasciculata - Rhus trilobata* | | | *33.300.03 | |
| *Prunus fasciculata - Salazaria mexicana* | | | *33.300.02 | |
| *Viguiera reticulata* (Net-veined goldeneye scrub) Alliance | Net-veined goldeneye scrub | G3 S3? | *33.033.00 | |
| *Viguiera reticulata* | | | *33.033.01 | |
| *Agave deserti* (Desert agave scrub) Alliance | Desert agave scrub | G3 S3 | *33.075.00 | |
| *Agave deserti - Ambroia salsola (wash and terrace)* | | | *33.075.01 | |
| *Agave deserti - Yucca schidigera* | | | *33.075.02 | |
| *Castela emoryi* (Crucifixion thorn stands) Special Stands | Crucifixion thorn stands | G2 S1 | *33.110.00 | |
| *Chilopsis linearis* (Desert willow woodland) Alliance | Desert willow woodland | G4 S3 | *61.550.00 | |
| *Chilopsis linearis* | | | *61.550.01 | |
| *Chilopsis linearis / Ambrosia salsola* | | | *61.550.02 | |
| *Chilopsis linearis / Atriplex polycarpa* | | | *61.550.08 | |
| *Chilopsis linearis / Ericameria paniculata* | | | *61.550.07 | |
| *Chilopsis linearis / Prunus fasciculata* | | | *61.550.04 | |
| *Chilopsis linearis / Prunus fasciculata - Ambrosia salsola* | | | *61.550.03 | |
| *Chilopsis linearis / Salvia dorrii* | | | *61.550.05 | |
| *Chilopsis linearis / Viguiera parishii* | | | *61.550.06 | |
| *Hyptis emoryi* (Desert lavender scrub) Alliance | Desert lavender scrub | G4 S3 | *33.190.00 | |
| *Hyptis emoryi* | | | *33.190.01 | |
| *Hyptis emoryi - Psorothamnus schottii* | | | *33.190.02 | |
| *Justicia californica* (Chuparosa patches) Provisional Alliance | Chuparosa patches | G2 S2? | *33.340.00 | |
| *Koeberlinia spinosa* (Crown-of-thorns stands) Special Stands | Crown-of-thorns stands | G2 S1 | *33.100.00 | |
| All Thorn Woodland | | G3 S1.1 | | *CTT75300CA |
| *Parkinsonia florida - Olneya tesota* (Blue palo verde - Ironwood woodland) Alliance | Blue palo verde - Ironwood woodland | G4 S3 | *61.545.00 | |
| *Parkinsonia florida* | | | *61.545.05 | |
| *Parkinsonia florida - Acacia greggii - Encelia frutescens Parkinsonia florida* | | | *61.545.06 | |
| *Parkinsonia florida - Olneya tesota* | | | *61.545.10 | |
| *Parkinsonia florida - Olneya tesota / Cylindropuntia munzii* | | | *61.545.12 | |
| *Parkinsonia florida - Olneya tesota / Hyptis emoryi* | | | *61.545.11 | |
| *Parkinsonia florida / Chilopsis linearis* | | | *61.545.07 | |
| *Parkinsonia florida / Hyptis emoryi* | | | *61.545.08 | |
| *Parkinsonia florida / Larrea tridentata - Peucephyllum schottii* | | | *61.545.09 | |
| *Olneya tesota* | | | *61.545.01 | |
| *Olneya tesota - Psorothamnus schottii* | | | *61.545.02 | |
| *Olneya tesota / Hyptis emoryi* | | | *61.545.04 | |
| *Olneya tesota / Larrea tridentata - Encelia farinosa* | | | *61.545.03 | |
| *Pluchea sericea* (Arrow weed thickets) Alliance | Arrow weed thickets | G3 S3 | *63.710.00 | |
| Arrowweed Scrub | | G3 S3.3 | | *CTT63820CA |
| *Pluchea sericea* | | | *63.710.01 | |
| *Pluchea sericea - Allenrolfea occidentalis* | | | *63.710.02 | |
| *Pluchea sericea - Atriplex canescens* | | | *63.710.03 | |
| *Prosopis glandulosa* (Mesquite bosque, mesquite thicket) Alliance | Mesquite bosque, mesquite thicket | G5 S3 | *61.512.00 | |
| Great Valley Mesquite Scrub | | G1 S1.1 | | *CTT63420CA |
| Mesquite Bosque | | G3 S2.1 | | *CTT61820CA |
| *Prosopis glandulosa* | | | *61.512.01 | |
| *Prosopis glandulosa - Salix exigua - Salix lasiolepis* | | | *61.512.09 | |
| *Prosopis glandulosa - Sambucus nigra* | | | *61.512.02 | |
| *Prosopis glandulosa / Atriplex canescens* | | | *61.512.04 | |
| *Prosopis glandulosa / Atriplex spp. (alkaline)* | | | *61.512.03 | |
| *Prosopis glandulosa / Bebbia juncea - Petalonyx thurberi (wash)* | | | *61.512.05 | |
| *Prosopis glandulosa / Pluchea sericea - Atriplex canescens (alkaline spring)* | | | *61.512.06 | |
| *Prosopis glandulosa / Rhus ovata (upper desert spring)* | | | *61.512.07 | |
| *Prosopis glandulosa / Suaeda moquinii* | | | *61.512.08 | |
| *Prosopis pubescens* (Screwbean mesquite bosques) Alliance | Screwbean mesquite bosques | G3 S2 | *61.513.00 | |
| *Prosopis / Atriplex spp. (alkaline)* | | | *61.513.01 | |
| *Prosopis / Bebbia juncea - Petalonyx thurberi (wash)* | | | *61.513.03 | |
| *Prosopis / Pluchea sericea - Atriplex canescens (alkaline spring)* | | | *61.513.02 | |
| *Psorothamnus spinosus* (Smoke tree woodland) Alliance | Smoke tree woodland | G4 S3 | *61.570.00 | |
| *Psorothamnus spinosus* | | | *61.570.01 | |
| *Psorothamnus spinosus - Acacia greggii - Chrysothamnus sp* | | | *61.570.06 | |
| *Psorothamnus spinosus / Ambrosia salsola - Bebbia juncea* | | | *61.570.02 | |
| *Psorothamnus spinosus / Ephedra californica - Ambrosia salsola* | | | *61.570.03 | |
| *Psorothamnus spinosus / Hyptis emoryi - Acacia greggii* | | | *61.570.04 | |
| Crucifixion Thorn Woodland | | G3 S1.2 | | *CTT75200CA |
| *Atriplex confertifolia* (Shadscale scrub) Alliance | Shadscale scrub | G5 S4 | 36.320.00 | |
| *Atriplex confertifolia* | | | 36.320.10 | |
| *Atriplex confertifolia - Grayia spinosa - Encelia virginensis var. actoni* | | | 36.320.09 | |
| *Atriplex confertifolia - Ambrosia dumosa* | | | 36.320.03 | |
| *Atriplex confertifolia - Atriplex canescens* | | | 36.320.06 | |
| *Atriplex confertifolia - Coleogyne ramosissima* | | | 36.320.04 | |

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| *Atriplex confertifolia - Ephedra nevadensis* | | | 36.320.02 | |
| *Atriplex confertifolia - Gutierrezia microcephala - Tetradymia axillaris* | | | 36.320.05 | |
| *Atriplex confertifolia - Krascheninnikovia lanata* | | | 36.320.08 | |
| *Atriplex confertifolia - Lycium andersonii* | | | 36.320.07 | |
| *Atriplex confertifolia / cryptogramic crust* | | | 36.320.11 | |
| *Atriplex canescens (*Fourwing saltbush scrub) Alliance | Fourwing saltbush scrub | G5 S4 | 36.310.00 | |
| *Atriplex canescens* | | | 36.310.01 | |
| *Atriplex canescens - Krascheninnikovia lanata* | | | 36.310.02 | |
| Shadscale Scrub | | G4 S3.2 | | CTT36140CA |
| Mono Pumice Flat | | G1 S1.2 | | *CTT35410CA |
| *Encelia virginensis* (Virgin River brittle brush scrub) Alliance | Virgin River brittle brush scrub | G4 S3 | *33.025.00 | |
| *Encelia virginensis* | | | *33.025.01 | |
| *Encelia virginensis - Salvia dorrii* | | | *33.025.02 | |
| *Ericameria nauseosa* (Rubber rabbitbrush scrub) Alliance | Rubber rabbitbrush scrub | G5 S5 | 35.310.00 | |
| Rabbitbrush Scrub | | G5 S5 | | CTT35400CA |
| *Ericameria nauseosa - Juniperus californica / annual to perennial herb* | | | 35.310.01 | |
| *Ericameria nauseosa / Sporobolus airoides* | | | 35.310.02 | |
| *Ericameria teretifolia* (Needleleaf rabbitbrush scrub) Alliance | Needleleaf rabbitbrush scrub | G4 S4 | 35.330.00 | |
| *Ericameria teretifolia* | | | 35.330.01 | |
| *Gutierrezia sarothrae* (Broom snake weed scrub) Provisional Alliance | Broom snake weed scrub | G3 S3 | *32.043.00 | |
| *Salvia dorrii* (Desert purple sage scrub) Alliance | Desert purple sage scrub | G3 S2 | *33.320.00 | |
| *Salvia dorrii* | | | *33.320.01 | |
| *Artemisia rothrockii* (Rothrock's sagebrush) Alliance | Rothrock's sagebrush | G3 S3 | *35.140.00 | |
| *Artemisia rothrockii / Monardella odoratissima* | | | *35.140.02 | |
| *Artemisia rothrockii / Penstemon heterodoxus* | | | *35.140.01 | |
| *Artemisia tridentata* (Big sagebrush) Alliance | Big sagebrush | G5 S5 | 35.110.00 | |
| Big Sagebrush Scrub | | G4 S4 | | CTT35210CA |
| Sagebrush Steppe | | G2 S2.1 | | *CTT35300CA |
| *Artemisia tridentata* | | | 35.110.02 | |
| *Artemisia tridentata - Artemisia nova* | | | 35.110.11 | |
| *Artemisia tridentata - Chrysothamnus viscidiflorus* | | | 35.110.12 | |
| *Artemisia tridentata - Coleogyne ramosissima* | | | 35.110.05 | |
| *Artemisia tridentata - Encelia virginensis* | | | 35.110.06 | |
| *Artemisia tridentata - Ephedra nevadensis* | | | 35.110.13 | |
| *Artemisia tridentata - Ericameria nauseosa* | | | 35.110.01 | |
| *Artemisia tridentata - Ericameria teretifolia* | | | 35.110.14 | |
| *Artemisia tridentata - Eriogonum fasciculatum* | | | 35.110.09 | |
| *Artemisia tridentata - Eriogonum wrightii* | | | 35.110.10 | |
| *Artemisia tridentata - Purshia tridentata* | | | 35.110.07 | |
| *Artemisia tridentata - Purshia tridentata / Hesperostipa comata* | | | 35.110.15 | |
| *Artemisia tridentata - Symphoricarpos longiflorus* | | | 35.110.04 | |
| *Artemisia tridentata ssp. vaseyana* (Mountain big sagebrush) Alliance | Mountain big sagebrush | G5 S5 | 35.111.00 | |
| Subalpine Sagebrush Scrub | | G3 S3.2 | | *CTT35220CA |
| *Artemisia tridentata ssp. vaseyana* | | | 35.111.02 | |
| *Artemisia tridentata ssp. vaseyana - Purshia tridentata / Festuca idahoensis* | | | 35.111.03 | |
| *Artemisia tridentata ssp. vaseyana / Carex exserta* | | | 35.111.01 | |
| *Artemisia tridentata ssp. vaseyana / Monardella odoratissima* | | | 35.111.04 | |
| *Artemisia arbuscula ssp. arbuscula* (Little sagebrush scrub) Alliance | Little sagebrush scrub | G5 S4 (some associations are of high priority for | 35.120.00 | |
| *Artemisia arbuscula* | | | 35.120.07 | |
| *Artemisia arbuscula - Eriogonum microthecum* | | | *35.120.05 | |
| *Artemisia arbuscula / Carex exserta* | | | 35.120.06 | |
| *Artemisia arbuscula / Castilleja applegatei* | | | 35.120.08 | |
| *Artemisia arbuscula / Castilleja schizotrichia* | | | 35.120.09 | |
| *Artemisia arbuscula / Eriogonum nudum - Monardella odoratissima* | | | 35.120.10 | |
| *Artemisia arbuscula / Festuca idahoensis* | | | *35.120.03 | |
| *Artemisia arbuscula / Leptodactylon pungens* | | | 35.120.04 | |
| *Artemisia arbuscula / Stenotus acaulis - Geum canescens* | | | 35.120.02 | |
| *Artemisia arbuscula / Stenotus acaulis - Linanthus pungens* | | | 35.120.11 | |
| *Artemisia arbuscula / Stenotus acaulis - Tetradymia canescens* | | | 35.120.12 | |
| *Artemisia arbuscula / Trifolium andersonii ssp. monoense* | | | *35.120.01 | |
| *Artemisia arbuscula ssp. longicaulis* (Lahontan sagebrush scrub) Provisional Alliance | Lahontan sagebrush scrub | G5 S4? | 35.121.00 | |
| *Artemisia nova* (Black sagebrush scrub) Alliance | Black sagebrush scrub | G4 S3 | *35.130.00 | |
| Pebble Plains | | G1 S1.1 | | *CTT47000CA |
| *Artemisia nova* | | | *35.130.01 | |
| *Artemisia nova - Ambrosia salsola* | | | *35.130.03 | |
| *Artemisia nova - Echinocereus engelmannii* | | | *35.130.02 | |
| Great Basin Mixed Scrub | | G4 S4 | | CTT35100CA |
| *Ephedra nevadensis* (Nevada joint fir scrub) Alliance | Nevada joint fir scrub | G4 S4 | 33.280.00 | |
| *Ephedra nevadensis* | | | 33.280.01 | |
| *Ephedra nevadensis - Atriplex confertifolia* | | | 33.280.02 | |

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|---|---|---|---|---|
| *Ephedra nevadensis - Ericameria cooperi* | | | 33.280.05 | |
| *Ephedra nevadensis - Lycium andersonii* | | | 33.280.04 | |
| *Ephedra nevadensis - Salazaria mexicana* | | | 33.280.03 | |
| *Ephedra viridis* (Mormon tea scrub) Alliance | Mormon tea scrub | G4 S4 (some associations are of high priority for | 33.285.00 | |
| *Ephedra viridis - Artemisia tridentata* | | | 33.285.01 | |
| *Grayia spinosa* (Spiny hop sage scrub) Alliance | Spiny hop sage scrub | G5 S3 | *33.180.00 | |
| *Grayia spinosa - Atriplex confertifolia* | | | *33.180.02 | |
| *Grayia spinosa - Ephedra viridis* | | | *33.180.06 | |
| *Grayia spinosa - Larrea tridentata* | | | *33.180.03 | |
| *Grayia spinosa - Lycium andersonii* | | | *33.180.04 | |
| *Grayia spinosa - Picrothamnus desertorum / Achnatherum hymenoides* | | | *33.180.07 | |
| *Grayia spinosa / Eriogonum ovalifolium* | | | *33.180.05 | |
| *Krascheninnikovia lanata* (Winterfat scrubland) Alliance | Winterfat scrubland | G4 S2 | *36.500.00 | |
| *Krascheninnikovia lanata* | | | *36.500.01 | |
| *Lycium andersonii* (Anderson's boxthorn scrub) Alliance | Anderson's boxthorn scrub | G4 S3 | *33.360.00 | |
| *Lycium andersonii* | | | *33.360.02 | |
| *Lycium andersonii - Simmondsia chinensis - Pleuraphis rigida* | | | *33.360.01 | |
| *Cercocarpus intricatus* (Small leaf mountain mahogany scrub) Provisional Alliance | Small leaf mountain mahogany scrub | G4 S3? | *76.300.00 | |
| *Cerocarpus intricatus* | | | *76.300.01 | |
| *Cercocarpus ledifolius* (Curl leaf mountain mahogany scrub) Alliance | Curl leaf mountain mahogany scrub | G5 S4 | 76.200.00 | |
| *Cercocarpus ledifolius* | | | 76.200.03 | |
| *Cercocarpus ledifolius - Artemisia tridentata* | | | 76.200.01 | |
| *Cercocarpus ledifolius / Symphoricarpos rotundifolia* | | | 76.200.02 | |
| *Coleogyne ramosissima* (Black brush scrub) Alliance | Black brush scrub | G5 S4 (some associations are of high priority for | 33.020.00 | |
| Blackbush Scrub | | G3 S3.2 | | *CTT34300CA |
| *Coleogyne ramosissima* | | | *33.020.01 | |
| *Coleogyne ramosissima - Atriplex confertifolia* | | | 33.020.02 | |
| *Coleogyne ramosissima - Atriplex hymenelytra - Tetradymia axillaris* | | | 33.020.10 | |
| *Coleogyne ramosissima - Ephedra nevadensis* | | | 33.020.03 | |
| *Coleogyne ramosissima - Eriogonum fasciculatum* | | | 33.020.05 | |
| *Coleogyne ramosissima - Eriogonum fasciculatum - Larrea tridentata* | | | 33.020.06 | |
| *Coleogyne ramosissima - Grayia spinosa* | | | 33.020.11 | |
| *Coleogyne ramosissima - Guiterrezia microcephala* | | | 33.020.12 | |
| *Coleogyne ramosissima - Larrea tridentata - Ambrosia dumosa* | | | 33.020.07 | |
| *Coleogyne ramosissima - Lycium andersonii* | | | 33.020.08 | |
| *Coleogyne ramosissima - Salazaria mexicana* | | | 33.020.09 | |
| *Nolina (bigelovii, parryi)* (Nolina scrub) Alliance | Nolina scrub | G3 S2 | *33.080.00 | |
| *Nolina bigelovii* | | | *33.080.02 | |
| *Nolina parryi* | | | *33.080.01 | |
| *Purshia stansburiana* (Stansbury cliff rose scrub) Alliance | Stansbury cliff rose scrub | G3 S3 | *33.240.00 | |
| *Purshia stansburiana* | | | *33.240.01 | |
| *Purshia tridentata* (Bitter brush scrub) Alliance | Bitter brush scrub | G4 S3 | *35.200.00 | |
| *Purshia tridentata - Artemisia tridentata - Symphoricarpos rotundifolia* | | | *35.200.03 | |
| *Purshia tridentata - Artemisia tridentata - Tetradymia canescens* | | | *35.200.01 | |
| *Purshia tridentata - Artemisia tridentata / Achnatherum hymenoides* | | | *35.200.02 | |
| *Purshia tridentata / Achnatherum nelsonii* | | | *35.200.04 | |
| *Purshia tridentata / Eriogonum umbellatum* | | | *35.200.05 | |
| Great Basin Grassland | | G1 S1.1 | | *CTT43000CA |
| *Achnatherum hymenoides* (Indian rice grass grassland) Alliance | Indian rice grass grassland | G4 S1 | *41.120.00 | |
| *Achnatherum hymenoides - Leptodactylon pungens* | | | *41.120.01 | |
| *Achnatherum hymenoides - Sphaeralcea ambigua* | | | *41.120.02 | |
| *Pseudoroegneria spicata* (Bluebunch wheat grass grassland) Alliance | Bluebunch wheat grass grassland | G4 S2 | *41.040.00 | |
| *Agropyron cristatum* (Crested wheatgrass rangelands) Semi-natural Stands | Crested wheatgrass rangelands | | 42.030.00 | Invasive sp ranking: Not listed. |
| *Achnatherum speciosum* (Desert needlegrass grassland) Alliance | Desert needlegrass grassland | G4 S2 | *41.090.00 | |
| *Achnatherum speciosum* | | | *41.090.01 | |
| *Pleuraphis jamesii* (James' galleta shrub-steppe) Alliance | James' galleta shrub-steppe | G3 S2 | *41.610.00 | |
| *Pleuraphis jamesii / Ephedra nevadensis* | | | *41.610.03 | |
| *Pleuraphis jamesii / Eriogonum fasciculatum* | | | *41.610.01 | |
| *Pleuraphis jamesii / Lycium andersonii* | | | *41.610.02 | |
| *Kobresia myosuroides* (Pacific bog sedge meadows) Alliance | Pacific bog sedge meadows | G5 S1 | *91.115.00 | |
| *Kobresia myosuroides - Thalictrum alpinum* | | | *91.115.01 | |
| *Salix petrophila* (Alpine willow turf) Alliance | Alpine willow turf | G5 S3 | *61.116.00 | |
| *Salix petrophila* | | | *61.116.01 | |
| *Salix petrophila - Calamagrostis muiriana* | | | *61.116.03 | |
| *Salix petrophila - Calamagrostis muriana - Vaccinium caespitosum - Antennaria media* | | | *61.116.02 | |
| *Salix nivalis* (Snow willow mats) Provisional Alliance | Snow willow mats | G4 S1? | *91.127.00 | |
| Klamath Cascade Fell Field | | G4 S4 | | CTT91110CA |
| Sierra Nevada Fell Field | | G4 S4 | | CTT91120CA |
| Southern California Fell Field | | G1 S1.2 | | *CTT91130CA |
| White Mountains Fell Field | | G2 S2.2 | | *CTT91140CA |

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| Wet Alpine Talus and Scree Slope | | G5 S4 | | CTT91210CA |
| Dry Alpine Talus and Scree Slope | | G5 S4 | | CTT91220CA |
| Alpine Dwarf Scrub | | G5 S4 | | CTT94000CA |
| Montane Dwarf Scrub | | G3 S3.2 | | *CTT38000CA |
| Dry Subalpine or Alpine Meadow | | G3 S3.2 | | *CTT45220CA |
| *Calamagrostis muiriana* (Shorthair reed grass meadows) Alliance | Shorthair reed grass meadows | G4 S4 | 45.141.00 | |
| *Calamagrostis muiriana - Oreostemma alpigenum* | | | 45.141.02 | |
| *Calamagrostis muiriana - Ptilagrostis kingii* | | | 45.141.03 | |
| *Calamagrostis muiriana - Trisetum spicatum* | | | 45.141.04 | |
| *Calamagrostis muriana - Juncus drummondii* | | | 45.141.01 | |
| *Carex breweri* (Brewer sedge mats) Alliance | Brewer sedge mats | G4 S3 | *45.150.00 | |
| *Carex breweri* | | | *45.150.01 | |
| *Carex breweri - Cistanthe umbellata* | | | *45.150.03 | |
| *Carex breweri - Poa wheeleri* | | | *45.150.02 | |
| *Carex filifolia* (Shorthair sedge turf) Alliance | Shorthair sedge turf | G4 S4 | 45.140.00 | |
| *Carex filifolia* | | | 45.140.06 | |
| *Carex filifolia - Calamagrostis muiriana* | | | 45.140.09 | |
| *Carex filifolia - Cistanthe monosperma* | | | 45.140.10 | |
| *Carex filifolia - Erigeron algidus* | | | 45.140.05 | |
| *Carex filifolia - Erigeron petiolaris* | | | 45.140.11 | |
| *Carex filifolia - Penstemon heterodoxus* | | | 45.140.08 | |
| *Carex filifolia - Saxifraga aprica* | | | 45.140.07 | |
| *Carex filifolia - Trisetum spicatum* | | | 45.140.01 | |
| *Festuca brachyphylla* (Alpine fescue fell-fields) Alliance | Alpine fescue fell-fields | G4? S3? | *91.170.00 | |
| *Festuca brachyphylla - Penstemon davidsonii* | | | *91.170.02 | |
| *Festuca brachyphylla - Eriogonum ovalifolium* | | | *91.170.01 | |
| *Kalmia microphylla* (Alpine laurel heath) Provisional Alliance | Alpine laurel heath | G4 S3? | *45.406.00 | |
| *Vaccinium cespitosum* (Dwarf bilberry meadows and mats) Alliance | Dwarf bilberry meadows and mats | G4? S3? | *45.405.00 | |
| *Vaccinium cespitosum - Calamagrostis muiriana* | | | *45.405.03 | |
| *Vaccinium cespitosum - Carex filifolia* | | | *45.405.04 | |
| *Vaccinium cespitosum - Carex nigricans* | | | *45.405.00 | |
| *Vaccinium cespitosum - Kalmia microphylla* | | | *45.405.02 | |
| *Carex helleri* (Heller's sedge fell-fields) Alliance | Heller's sedge fell-fields | G4 S2 | *45.145.00 | |
| *Carex helleri - Saxifraga tolmiei - Luzula divaricata* | | | *45.145.03 | |
| *Carex helleri - Arabis platysperma - Penstemon heterodoxus* | | | *45.145.06 | |
| *Carex helleri - Eriogonum incanum - Raillardella argentea* | | | *45.145.05 | |
| *Carex helleri - Poa suksdorfii* | | | *45.145.04 | |
| *Carex spectabilis* (Showy sedge sod) Alliance | Showy sedge sod | G4 S3 | *45.155.00 | |
| *Carex spectabilis - Senecio triangularis* | | | *45.155.02 | |
| *Carex spectabilis - Sibbaldia procumbens* | | | *45.155.01 | |
| *Cassiope mertensiana* (White mountain heather heath) Provisional Alliance | White mountain heather heath | G5 S3? | *91.126.00 | |
| *Saxifraga nidifica* (Pink saxifrage patches) Provisional Alliance | Pink saxifrage patches | G4? S3? | *91.124.00 | |
| *Polygonum minimum* | | | *91.124.03 | |
| *Rhodiola integrifolia - Selaginella watsonii* | | | *91.124.02 | |
| *Saxifraga tolmiei* (Patches of Tolmie's alpine saxifrage) Provisional Alliance | Patches of Tolmie's alpine saxifrage | G4 S3? | *91.125.00 | |
| *Calamagrostis purpurascens* (Fell-fields with purple reed grass) Alliance | Fell-fields with purple reed grass | G4? S4? | 41.211.00 | |
| *Calamagrostis purpurascens - Ericameria parryi var. monocephala - Linanthus pungens* | | | 41.211.02 | |
| *Calamagrostis purpurascens - Linanthus pungens* | | | 41.211.01 | |
| *Calamagrostis purpurascens / Ribes cereum* | | | 41.211.03 | |
| *Carex congdonii* (Congdon's sedge talus) Provisional Alliance | Congdon's sedge talus | G2 S2 | *45.160.00 | |
| *Arnica amplexicaulis - Carex congdonii* | | | *45.160.01 | |
| *Ericameria discoidea - Hulsea algida* (Fell-fields with California heath-goldenrod and Pacific alpine gold) Alliance | Fell-fields with California heath-goldenrod a | G3? S3? | *38.120.00 | |
| *Ericameria discoidea - Linanthus pungens* | | | *38.120.02 | |
| *Ericameria discoidea - Minuartia nuttallii* | | | *38.120.01 | |
| *Hulsea algida* | | | *38.120.04 | |
| *Hulsea algida - Ericameria discoidea - Phacelia hastata* | | | *38.120.05 | |
| *Hulsea algida - Muhlenbergia richardsonis - Achnatherum pinetorum* | | | *38.120.06 | |
| *Oxyria digyna* (Mountain sorrel patches) Provisional Alliance | Mountain sorrel patches | G4 S3? | *91.122.00 | |
| *Astragalus kentrophyta - Draba oligosperma* | | | *91.123.03 | |
| *Phlox covillei* (Coville's phlox fell-fields) Alliance | Coville's phlox fell-fields | G4 S3 | *91.123.00 | |
| *Draba oligosperma - Poa glauca ssp. Rupicola* | | | *91.123.04 | |
| *Festuca minutiflora - Penstemon davidsonii* | | | *91.120.36 | |
| *Ivesia muirii* | | | *91.120.06 | |
| *Phlox covillei - Elymus elymoides - Podistera nevadensis* | | | *91.123.01 | |
| *Phlox covillei - Elymus elymoides - Podistera nevadensis - Erigeron pygmaeus* | | | *91.123.02 | |
| *Phlox covillei - Eriogonum gracilipes* | | | *91.123.09 | |
| *Phlox covillei - Eriogonum incanum* | | | *91.123.05 | |
| *Phlox (covillei) - Ivesia shockleyi* | | | *91.123.07 | |
| *Phlox covillei - Linum lewisii* | | | *91.123.08 | |
| *Podistera nevadensis - Arenaria kingii* | | | *91.120.08 | |

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| *Podistera nevadensis - Erigeron pygmaeus* | | | *91.123.06 | | |
| *Phlox pulvinata* (Cushion phlox fell-fields) Alliance | Cushion phlox fell-fields | G4 S3 | *91.150.00 | | |
| *Phlox pulvinata - Anelsonia eurycarpa* | | | *91.150.02 | | |
| *Phlox pulvinata - Ericameria suffruticosa - Ipomopsis congesta* | | | *91.150.03 | | |
| *Phlox pulvinata - Festuca brachyphylla* | | | *91.150.05 | | |
| *Phlox pulvinata - Ivesia gordonii* | | | *91.150.06 | | |
| *Phlox pulvinata - Lupinus argenteus var. montigenus* | | | *91.150.04 | | |
| *Ruppia (cirrhosa, maritima)* (Ditch-grass or widgeon-grass mats) Alliance | Ditch-grass or widgeon-grass mats | G4? S2 | *52.202.00 | | |
| *Ruppia cirrhosa - algae* | | | *52.202.02 | | |
| *Stuckenia (pectinata) - Potamogeton spp.* (Pondweed mats) Alliance | Pondweed mats | G3G5 S3? | *52.107.00 | | |
| *Potomogeton spp.* | | | *52.107.02 | | |
| *Stuckenia pectinata* | | | *52.107.01 | | |
| *Hydrocotyle (ranunculoides, umbellata)* (Mats of floating pennywort) Alliance | Mats of floating pennywort | G4 S3? | *52.117.00 | | |
| *Hydrocotyle ranunculoides* | | | *52.117.01 | | |
| *Hydrocotyle ranunculoides - Schoenoplectus pungens* | | | *52.117.02 | | |
| *Isoetes (bolanderi, echinospora, howellii, nuttallii, occidentalis)* (Quillwort beds) Provisional Alliance | Quillwort beds | G3 S3? | *52.109.00 | | |
| *Nuphar lutea* (Yellow pond-lily mats) Provisional Alliance | Yellow pond-lily mats | G5 S3? | *52.110.00 | | |
| *Sparganium (angustifolium)* (Mats of bur-reed leaves) Alliance | Mats of bur-reed leaves | G4 S3? | *52.010.00 | | |
| *Sparganium angustifolium* | | | *52.010.01 | | |
| *Azolla (filiculoides, mexicana)* (Mosquito fern mats) Provisional Alliance | Mosquito fern mats | G4 S4 | 52.106.00 | | |
| *Lemna (minor) and Relatives* (Duckweed blooms) Provisional Alliance | Duckweed blooms | G5 S4? | 52.105.00 | | |
| *Ludwigia (hexapetala, peploides)* (Water primrose wetlands) Provisional Semi-natural Stands | Water primrose wetlands | | 52.118.00 | | Invasive sp ranking: Cal-IPC rank: High |
| *Sedum spathulifolium* (Coast Range stonecrop draperies) Provisional Alliance | Coast Range stonecrop draperies | G4? S4? | 43.400.00 | | |
| *Selaginella bigelovii* (Bushy spikemoss mats) Alliance | Bushy spikemoss mats | G4 S3 | *42.062.00 | | |
| *Selaginella bigelovii / Eriogonum fasciculatum* | | | *42.062.01 | | |
| Alpine Glacier | | G5 S2.3 | | CTT93200CA | |
| Alpine Snowbank Margin | | G5 S4 | | CTT91300CA | |
| Alpine Snowfield | | G5 S5 | | CTT93100CA | |
| Alkali Playa Community | | G4 S3.2 | | CTT46000CA | |
| Active Desert Dunes | | G4 S2.2 | | *CTT22100CA | |
| Stabilized and Partially Stabilized Desert Dunes | | G4 S3.2 | | *CTT22200CA | |
| Stabilized and Partially Stabilized Desert Sand Fields | | G4 S3.2 | | *CTT22300CA | |
| *Dicoria canescens - Abronia villosa* (Desert dunes) Alliance | Desert dunes | G3 S2 | *22.100.00 | | |
| *Dicoria canescens* | | | *22.100.01 | | |
| *Panicum urvilleanum* (Desert panic grass patches) Alliance | Desert panic grass patches | G3 S1 | *42.095.00 | | |
| *Panicum urvilleanum* | | | *42.095.01 | | |
| *Swallenia alexandrae* (Patches of Eureka Valley dune grass) Special Stands | Patches of Eureka Valley dune grass | G1 S1 | *41.600.00 | | |
| *Atriplex hymenelytra* (Desert holly scrub) Alliance | Desert holly scrub | G5 S4 | 36.330.00 | | |
| *Atriplex hymenelytra* | | | 36.330.01 | | |
| *Atriplex hymenelytra - Ambrosia dumosa* | | | 36.330.02 | | |
| *Atriplex hymenelytra - Encelia farinosa* | | | 36.330.06 | | |
| *Atriplex hymenelytra - Larrea tridentata - Ambrosia dumosa* | | | 36.330.03 | | |
| *Atriplex hymenelytra - Tidestromea oblongifolia* | | | 36.330.04 | | |
| *Atriplex hymenelytra / rock* | | | 36.330.05 | | |
| *Ephedra funerea* (Death Valley joint fir scrub) Provisional Alliance | Death Valley joint fir scrub | G3? S2? | *33.275.00 | | |

| Classification Level | Classification Level 2 | Initial Reference | Other Reference |
|---|---|---|---|
| Alliance | | Keeler-Wolf et al. 2003b | Evens and Kentner 2006, Klein et al. 2007 |
| Association | | Klein et al. 2007 | |
| Association | | Evens and Kentner 2006 | Griffin 1977, Griffin and Critchfield 1972, Halvorson and Clark 1989, Howard 1992 |
| Association | | Evens and Kentner 2006 | Griffin 1977, Griffin and Critchfield 1972, Halvorson and Clark 1989, Howard 1992 |
| Association | | Keeler-Wolf et al. 2003b | |
| Association | | Keeler-Wolf et al. 2003b | |
| Association | | Evens et al. 2004 | Klein et al. 2007, NatureServe 2007b |
| Alliance | | Keeler-Wolf and Evens 2006 | Barbour 1988, Bowler 1989, Esser 1993c, Holstein |
| Association | | Keeler-Wolf and Evens 2006 | Keeley 1990a, Mullally 1992, 1993, Quinn 1990, Stanford et al. 2000, |
| Association | | Keeler-Wolf and Evens 2006 | Keeley 1990 a, Mullally 1992, 1993, Quinn 1990, Stanford et al. 2000, |
| Association | | Keeler-Wolf and Evens 2006 | Keeley 1990a, Mullally 1992, 1993, Quinn 1990, Stanford et al. 2000, |
| Association | | Keeler-Wolf and Evens 2006 | Keeley 1990a, Mullally 1992, 1993, Quinn 1990, Stanford et al. 2000, |
| Association | | Keeler-Wolf and Evens 2006 | Keeley 1990a, Mullally 1992, 1993, Quinn 1990, Stanford et al. 2000, |
| Association | | Keeler-Wolf and Evens 2006 | Keeley 1990a, Mullally 1992, 1993, Quinn 1990, Stanford et al. 2000, |
| Special Stands | | Griffin and Critchfield 1972 | Bushakra et al. 1999, Junak 1987, Junak et al. 2007, Minnich 1980a, |
| Alliance | | Keeler-Wolf et al. 2003a | Evens and San. 2004, Keeler-Wolf and Evens 2006 |
| Association | | Cooper 1922 | Allen et al. 1989, 1992, Dagit 2002, Dunning et al. 2002, Keeler-Wolf and Evens 2006, Parker 1990b, 1994, Parker and |
| Association | | Allen et al. 1989 | Allen et al. 1991, Barbour 1988, Barry 1989a, 1989b, Boyd et al. 1995, Brown 1982b |
| Association | | NatureServe 2007b | |
| Association | | Allen et al. 1989 | Allen et al. 1991, Barbour 1988, Barry 1989a, |
| Association | | Allen et al. 1989 | Allen et al. 1991, Barbour 1988, Barry 1989a, |
| Association | | Keeler-Wolf et al. 2003a | Evens and Kentner 2006 |
| Association | | Allen et al. 1989 | Allen et al. 1991, Barbour 1988, Barry 1989a, 1989b, Boyd et al. 1995, Brown 1982b |
| Association | | Keeler-Wolf and Evens 2006 | |
| Association | | Keeler-Wolf et al. 1998b | |
| Association | | Klein and Evens | Koenig et al. 1994, 1996, 1999, Koenig and |
| Association | | Evens and San 2005 | Klein and Evens 2005, Koenig et al. 1994, 1996, 1999, Koenig and |
| Association | | Allen et al. 1989 | O'Neil and Egan 2004, Allen et al. 1991, Barbour 1988, Barry 1989a, |
| Association | | Evens and San 2005 | |
| Association | | Wainwright and Barbour 1984 | Campbell 1980, Cooper 1922, Dagit 2002, Dunning et al. 2002, Evens and San 2005, Wells 1962, Zuill 1967 |
| Association | | Keeler-Wolf and Evens 2006 | |
| Association | | Evens and San 2004 | Keeler-Wolf and Evens 2006, O'Neil and |
| Association | | Evens and San 2004 | |
| Association | | Keeler-Wolf and Evens 2006 | |
| Association | | Allen et al. 1989 | Allen et al.. 1991, Barbour 1988, Barry 1989a, |
| Association | | Keeler-Wolf and Evens 2006 | |
| Association | | Allen et al. 1989 | Allen et al. 1991, Barbour 1988, Barry 1989a, 1989b, Boyd et al. 1995, Brown 1982b, Keeler-Wolf and Evens 2006 |
| Association | | Allen et al. 1989 | Allen et al. 1991, Barbour 1988, Barry 1989a, 1989b, Boyd et al. 1995, Brown 1982b, Evens and San 2004 |
| Association | | Gordon and White 1994 | Griffin 1971, 1977, Griffin and |
| Association | | Keeler-Wolf and Evens 2006 | |
| Association | | Klein and Evens 2005 | Koenig et al. 1994, 1996, 1999, Koenig and |
| Association | | Finch and McCleery 1980 | Evens and San 2005, Faber et al. 1989, Ferren 1989a, Finch and |
| Association | | Hickson and Keeler-Wolf 2007 | |
| Provisional Association | | Keeler-Wolf et al. 1998b | |
| Association | | Allen et al. 1989 | Allen et al. 1991, Barbour 1988, Barry 1989a, 1989b, Boyd et al. 1995, Brown 1982b |
| Association | | Evens and San 2004 | |
| Association | | Allen et al. 1989 | Allen et al. 1991, Barbour 1988, Barry 1989a, 1989b, Boyd et al. 1995, Brown 1982b, Evens and Kentner 2006, Dunning et al. 2005, Faber et al. |
| Association | | Allen et al. 1989 | Allen et al. 1991, Barbour 1988, Barry 1989a, 1989b, Boyd et al. 1995, Brown 1982b, Keeler-Wolf and Evens 2006, Hickson and Keeler-Wolf 2007 |
| Association | | Allen et al. 1989 | Evens and San 2004, Allen et al. 1991, Barbour 1988, Barry 1989a, |
| Association | | Allen et al. 1989 | Allen et al. 1991, Barbour 1988, Barry 1989a, |
| Association | | Keeler-Wolf and Evens 2006 | |
| Association | | Allen et al. 1989 | Allen et al. 1991, Barbour 1988, Barry 1989a, 1989b, Boyd et al. 1995, Brown 1982b |
| Association | | Keeler-Wolf and Evens 2006 | |
| Association | | Keeler-Wolf 1990a | |
| Association | | Allen et al. 1989 | Allen et al. 1991, Barbour 1988, Barry 1989a, |
| Association | | Keeler-Wolf et al. 2003a | |
| Association | | Allen et al. 1989 | Allen et al. 1991, Barbour 1988, Barry 1989a, |
| Association | | Evens and San 2005 | Faber et al. 1989, Ferren 1989a, Finch and |
| Alliance | | Keeler-Wolf et al. 2003b | Klein and Evens 2005, Evens et al. 2006 |

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| Association | Lee 2004 | Mallory 1980, McDonald et al. 1983 |
| Association | Meier 1979 | Evens et al. 2006a, Klein and Evens 2005, Klein et al. 2007, Minnich 1976, 1980b, 1987, Myatt 1980, Paysen et al. 1980, Pavlik et al. 1991, |
| Association | Campbell 1980 | Cooper 1922, Evens and Kentner 2006, Evens et al. 2006b |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Gordon and White 1994 | Keeler-Wolf 1988e, Keeler-Wolf et al. 2001, Taylor and Randall 1977, Tirmenstein 1989b, Thornburgh 1990b |
| Association | Klein and Evens 2006 | |
| Association | Griffin 1976a | Borchert 1987, Borchert and Hibberd 1984 |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Sawyer and Stillman 1977 | |
| Association | Klein et al. 2007 | |
| Association | Mallory 1980 | Klein et al. 2007,  Lee 2004, McDonald et al. 1983 |
| Association | Klein et al. 2007 | |
| Association | Klein et al. 2007 | |
| Association | Keeler-Wolf et al. 2003b | Klein et al. 2007 |
| Association | Klein et al. 2007 | |
| Association | Taylor and Randal 1977 | |
| Association | Keeler-Wolf et al. 2003b | Lee 2004, Mallory 1980, McDonald et al. 1983 |
| Association | Keeler-Wolf et al. 2003b | Lee 2004, Mallory 1980, McDonald et al. 1983, Klein et al. 2007 |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Lee 2004 | |
| Association | Sawyer and Stillman 1977 | Sawyer and Stillman 1978 |
| Association | Evens 2000 | |
| Association | Mallory 1980 | Lee 2004, Potter 2005, McDonald et al. 1983 |
| Alliance | Allen et al. 1989 | Evens et al. 2004 |
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| Association | Evens et al. 2004 | |
| Association | Evens et al. 2004 | Klein et al. 2007, Koenig and |
| Association | Allen et al. 1991 | Evens et al. 2004, Keeler-Wolf et al. |
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| Association | Allen et al. 1991 | Klein et al. 2007, Koenig and |
| Association | Allen et al. 1991 | Evens et al. 2004 |
| Association | Griffin 1971 | Evens et al. 2006, Gaman and Casey 2002, Gemmill |
| Association | Allen et al. 1991 | Allen-Diaz et al. 2007, Allen- |
| Association | Allen et al. 1991 | Klein et al. 2007, Koenig and |
| Association | Allen et al. 1991 | Klein et al. 2007, Koenig and Knops 1997, Koenig et al. 2002, Lewis and Burgy 1964, |
| Association | Allen et al. 1991 | Evens et al. 2006, Allen-Diaz et al. 2007, Allen- |
| Association | Keeler-Wolf et al. 2003b | Keeley 2002c |
| Association | Allen et al. 1991 | Allen-Diaz et al. 2007, Allen- |
| Association | Borchert vet al. 1993a | |
| Association | Evens et al. 2006 | Gaman and Casey 2002, Gemmill |
| Association | Newton 1987a | |
| Association | Borchert et al. 1993 | |
| Association | Klein et al. 2007 | Koenig and Knops 1997, Koenig et al. 2002, Lewis and Burgy 1964, |
| Association | Evens et al. 2004 | |
| Association | Evens et al. 2004 | |
| Association | Evens et al. 2004 | |
| Association | Evens et al. 2004 | |
| Association | Keeler-Wolf et al. 2003b | Keeley 2002c |
| Association | Allen et al. 1991 | Allen-Diaz et al. 2007, Allen-Diaz and Bartolome 1992, Evens, Keeler-Wolf, Klein, and Hickson 2005 |
| Association | Borchert et al. 1993a | Dagit 2002, DeLasaux and Pillsbury 1987 |
| Association | Borchert et al. 1993 | |
| Association | Borchert et al. 1993 | |
| Association | Allen et al. 1991 | Allen-Diaz et al. 2007, Allen- |
| Association | Evens et al. 2006 | Gaman and Casey 2002, Gemmill |
| Association | Borchert et al. 1993 | |
| Association | Evens et al. 2006 | Gaman and Casey 2002, Gemmill |
| Association | Borchert et al. 1993 | |
| Association | Borchert et al. 1993 | |
| Association | Borchert et al. 1993 | |
| Association | Allen et al. 1991 | Evens et al. 2004, Keeler-Wolf et al. |
| Association | Borchert et al. 1993 | |
| Association | NatureServe 2007b | |
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| Association | Klein et al. 2007 | |
| Association | Evens et al. 2006 | Gaman and Casey 2002, Gemmill |
| Association | Borchert et al. 1993 | |
| Association | Borchert et al. 1993 | |

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| Association | Borchert et al. 1993a | Dagit 2002, DeLasaux and Pillsbury 1987 |
| Association | Klein et al. 2007 | Koenig and Knops 1997, Koenig et al. 2002, Lewis and Burgy 1964, |
| Association | Evens et al. 2004 | |
| Association | Allen et al. 1991 | Keeler-Wolf et al. 2003b, Keeley 2002c, Allen-Diaz et al. 2007, Allen- |
| Alliance | Evens and San 2005 | Klein and Evens 2005, Barbour 1988, Beauchamp 1986, Bowler 1989, Boyd |
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| Association | Evens and San 2005 | Gaman and Casey 2002, Griffin 1977, |
| Association | Evens and San 2005 | Gaman and Casey 2002, Griffin 1977, |
| Association | Klein and Evens 2005 | Evens and San 2005, Gaman and Casey 2002, Griffin 1977, |
| Association | Evens and San 2005 | Gaman and Casey 2002, Griffin 1977, |
| Association | Klein and Evens 2005 | Koenig and Knops 1997, Lathrop and |
| Alliance | Allen et al. 1991 | Evens and San 2005, Klein et al. 2007 |
| | | |
| Association | Keeler-Wolf et al. 2003b | Kilgore 1981, Evens |
| Association | Keeler-Wolf 1986d | Keeler-Wolf 1990c |
| Association | Klein and Evens 2005 | |
| Association | Klein and Evens 2005 | |
| Association | Klein et al. 2007 | |
| | | |
| Association | Keeler-Wolf et al. 2003b | Klein et al. 2007, Kilgore 1981, [9] Klein |
| Association | Klein et al. 2007 | |
| Association | cf. Lee 2004 | Klein et al. 2007, McDonald 1980a, McDonald 1990c, Minnich |
| Association | Wainwright and Barbour 1984 | Jimerson et al. 1996, Kauffman and Martin 1987, Klein et al. 2007, Stuart et al. 1992, |
| Association | Jimerson 1993 | |
| Association | Klein et al. 2007 | |
| Association | Allen et al. 1991 | Allen-Diaz and Holzman 1991, Barbour 1988, Barry 1989a, b, Cheatham and |
| Association | Allen et al. 1991 | Evens and San 2005, Gaman and Casey 2002, Garrison et al. |
| Association | Allen et al. 1991 | |
| Association | Allen et al. 1991 | Allen-Diaz and Holzman 1991, Barbour 1988, Barry 1989a, b, Cheatham and |
| Association | Allen et al. 1991 | |
| Association | Evens and San 2005 | Gaman and Casey 2002, Garrison et al. |
| Association | Keeler-Wolf et al. 2003b | Kilgore 1981 |
| Association | Allen et al. 1991 | Allen-Diaz and Holzman 1991, Barbour 1988, Barry 1989a, b, Cheatham and |
| Association | Paysen et al. 1980 | cf. Lee 2004, Klein et al. 2007, McDonald 1980a, McDonald 1990c, Minnich |
| Association | Allen et al. 1991 | Allen and Holzman 1991, Barbour 1988, Barry 1989a, b, Cheatham and |
| Association | Allen et al. 1991 | Allen-Diaz and Holzman |
| Association | Lee 2004 | |
| Association | Allen et al. 1991 | Allen-Diaz and Holzman 1991, Barbour 1988, Barry 1989a, b, Cheatham and |
| Association | Allen et al. 1991 | Allen and Holzman 1991, Barbour 1988, Barry 1989a, b, Cheatham and |
| Association | Allen et al. 1991 | Klein et al. 2007 |
| Association | Allen et al. 1991 | Allen-Diaz and Holzman 1991, Barbour 1988, Barry 1989a, b, Cheatham and Haller 1975 |
| Alliance | Allen et al. 1989 | Keeler-Wolf and Evens 2006, Hickson and Keeler-Wolf 2007 |
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| Association | Hickson and Keeler-Wolf 2007 | |
| Association | Hickson and Keeler-Wolf 2007 | Klein et al. 2007 |
| Association | Hickson and Keeler-Wolf 2007 | |
| Association | Allen et al. 1991a | Evens, Keeler-Wolf, San, Kentner, and Schindel 2005 |
| Association | Allen et al. 1989 | Allen et al. 1991, Evens et al. 2004 |
| Association | Allen et bal. 1989 | Allen et al. 1991 |
| Association | Allen et al. 1991 | |
| Association | Klein et al 2007 | |
| Association | Keeler-Wolf and Evens 2005 | Hickson and Keeler-Wolf 2007 |
| Association | Vaghti 2003 | |
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| Association | Allen et al. 1989 | Allen et al. 1991, Evens and Kentner 2006, Keeler-Wolf and Evens 2006 |
| Association | Klein et al 2007 | |
| Association | Klein et al. 2007 | |
| Association | Hickson and Keeler-Wolf 2007 | Klein et al. 2007 |
| Alliance | Klein and Evens 2006 | |
| Association | Klein and Evens 2005 | Nixon 2002 |
| Association | Klein and Evens 2005 | Nixon 2002 |
| Provisional Alliance | Dodd et al.2002 | Miller 2005, CNPS 2006, Heise 2007 |
| Alliance | Allen et al. 1989 | |
| Association | Allen et al. 1989 | Allen et al. 1991, Allen-Diaz et al. 2007, Allen-Diaz and Holzman 1991, Barbour 1988, Cooper |
| Association | Allen et al. 1989 | Allen et al. 1991, Allen-Diaz et al. 2007, Allen-Diaz and Holzman 1991, Barbour 1988, Cooper |
| Association | Allen et al. 1989 | Allen et al. 1991, Allen-Diaz et al. 2007, Allen-Diaz and Holzman 1991, Barbour 1988, Cooper |
| Association | Allen et al. 1991 | |

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| Association | Allen et al. 1989 | Allen et al. 1991, Allen-Diaz et al. 2007, Allen-Diaz and Holzman 1991, Barbour 1988, Cooper |
| Association | Allen et al. 1989 | Allen et al. 1991, Allen-Diaz et al. 2007, Allen-Diaz and Holzman 1991, Barbour 1988, Cooper |
| Association | Allen et al. 1989 | Allen et al. 1991, Allen-Diaz et al. 2007, Allen-Diaz and Holzman 1991, Barbour 1988, Cooper |
| Special Stands | Griffin and Critchfield 1972 | Clark et al. 1990, Junak et al. 1995, 2007, Kindsvater 2006, Landis 1997, |
| Alliance | Allen et al. 1989 | Evens et al. 2004 |
| Association | Klein et al. 2007 | |
| Association | Evens et al. 2004 | Lee 2004, Minnich 1976, |
| Association | Allen et al. 1991 | |
| Association | Klein et al. 2007 | |
| Association | Evens et al. 2004 | Klein et al. 2007, NatureServe 2007b |
| Association | Allen et al. 1991 | Klein et al. 2007, Allen-Diaz and Holzman |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Klein and Evens 2006 | |
| Association | Keeler-Wolf et al. 2003b | Klein and Evens 2005 |
| Association | Klein et al. 2007 | |
| Association | Allen et al. 1991 | Keeler-Wolf et al. 2003b, Klein et al 2007, Allen-Diaz and Holzman |
| Association | Evens et al. 2004 | |
| Association | Klein et al. 2007 | |
| Association | Evens et al. 2004 | |
| Association | Klein et al. 2007 | |
| Association | Evens, San and Taylor 2004 | |
| Association | Klein et al. 2007 | |
| Association | Allen et al. 1991□ | Keeler-Wolf et al. 2003b, Klein et al. |
| Association | Allen et al. 1991 | Allen-Diaz and Holzman |
| Association | Evens et al. 2004 | Evens and Kentner 2006, Griffin 1977, Hanes 1976, |
| Association | Lee et al. 2004 | Minnich 1976, Evens et al. 2004, Griffin 1977, Hanes 1976 |
| Association | Lee 2004 | |
| Alliance | Keeler-Wolf et al 2003a | Evens and Kentner 2006 |
| Association | Campbell 1980 | Evens and Kentner 2006, |
| Association | Evens and Kentner 2006 | |
| Association | Evens and Kentner 2006 | |
| Association | Evens and Kentner 2006 | Keeler- Wolf and Evens 2006, Klein et al. 2007, McBride |
| Association | Parker 1990 | Paysen et al. 1980 |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | Evens and Kentner 2006 | |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | Evens and Kentner 2006 | |
| Association | Evens and Kentner | |
| Association | Evens and San 2004 | Griffin and Critchfield 1972, |
| Association | Keeler-Wolf et al. 2003b | Evens and Kentner 2006 |
| Association | Evens and Kentner 2006 | |
| Association | Klein et al. 2007 | |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | Evens and Kentner 2006 | Keeler-Wolf et al. 2003a, |
| Association | Allen-Diaz et al. 2001 | Barbour 1988, Barry 1989a, 1989b |
| Special Stands | Wolf and Wagener 1948 | Barbour 2007, Bartel et al. 2003, Griffin and Critchfield |
| Alliance | Wolf and Wagener 1948 | |
| Association | Cheng 2004 | Griffin and Critchfield 1972, Kruckeberg 1984, Murray 1988, Paysen et al. |
| Alliance | Wolf and Wagener 1948 | Armstrong 1978, Brown 1982e, Cheng 2004, Dunn |
| Special Stands | Vogl et al. 1977 | Barbour 2007, Esser 1994d, Holland 1986 |
| Alliance | Griffin and Stone 1967 | Alexander et al. 2007, Bartel et al. 2003, Barbour |
| Association | Klein et al. 2007 | Kruckeberg 1984, Paysen et al. 1980, Stuart |
| Special Stands | Wolf 1948 | Barbour 2007, Esser 1994f, Green 1929, Griffin and |
| Association | Keeler-Wolf 1990b | Sullivan 1993b, Twisselmann 1967, Vogl et al. 1977, |
| Alliance | Jenny et al. 1969 | |
| Association | Westman and Whittaker 1975 | |
| Association | Westman and Whittaker 1975 | |
| Association | Westman and Whittaker 1975 | |
| Alliance | Evens and Kentner 2006 | |
| Association | Evens and Kentner 2006 | Kruckeberg 1984, Mendocino |
| Association | Evens and Kentner 2006 | Kruckeberg 1984, Mendocino National Forest 1987, Paysen et al. 1980, Vogl et al. |

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| Association | Evens and Kentner 2006 | Kruckeberg 1984, Mendocino |
| Special Stands | Wolf and Wagener 1948 | Armstrong 1978, Barbour 2007, Earle 2005, Farjon |
| Alliance | Keeler-Wolf et al. 1998b | Thomas et al. 2004 |
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| Association | Keeler-Wolf et al. 2005 | |
| Association | | |
| Association | Keeler-Wolf et al. 1998b | Keeler-Wolf and Thomas 2000, Keeler-Wolf et al. 2005, San, and Hickson 2005 |
| Association | Keeler-Wolf and Thomas 2000 | Keeler-Wolf et al. 2005 |
| Association | | |
| Association | Klein and Evens 2005 | |
| Association | Evens et al. 2006 | |
| Association | Keeler-Wolf and Thomas 2000 | Keeler-Wolf et al. 2005 |
| Association | Keeler-Wolf et al. 2005 | |
| Association | Keeler-Wolf and Thomas 2000. 1998 | |
| Association | Klein and Evens 2005 | Klein et al. 2007, Meeuwig and Bassett 1983 |
| Association | Keeler-Wolf and Thomas 2000 | |
| Association | Keeler-Wolf and Thomas 2000 | Keeler-Wolf et al. 2005 |
| Association | NatureServe 2007 | |
| Alliance | Keeler-Wolf et al. 2003b | Klein and Evens 2005 |
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| Association | Lee 2004 | Minnich 1976, 2007, Paysen et al. 1980 |
| Association | Keeler-Wolf et al. 2003b | Keeley and Keeley 1978 |
| Association | Imper 1991a | |
| Association | Klein and Evens 2005 | Kruckeberg 1984 |
| Association | Imper 1991b | |
| Association | Keeler-Wolf and Moore 2001 | |
| Association | Lee 2004 | Minnich 1976, 2007, Paysen et al. 1980 |
| Association | Taylor and Teare 1979ba | Whittaker 1960, Vogl 1973, 1976, Vogl et al. 1977 |
| Alliance | Evens and San 2005 | Klein and Evens 2005, Evens et al. 2006, Barbour 1988, Borchert 1985 |
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| Association | Evens and San 2005 | |
| Association | Evens et al. 2006 | Hanes 1976 |
| Association | Evens and San 2005 | |
| Association | Evens and San 2005 | |
| Association | Evens□ | Evens et al. 2006, Hanes 1976, Klein |
| Association | Klein and Evens 2005 | |
| Association | Keeler-Wolf 1988e | Keeler-Wolf 1989g, Evens et al. 2006, Hanes 1976, |
| Association | Klein and Evens 2005 | Minnich 1976, 1980b, 1987, 2007, |
| Association | Borchert et al. 2004 | |
| Association | Klein and Evens 2005 | |
| Association | Evens and San 2005 | |
| Association | Evens and San 2005 | |
| Alliance | Keeler-Wolf et al. 2003a | Ades et al. 1992, Axelrod 1980b, Cope 1993e |
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| Association | Keeler-Wolf et al. 2003a | Evens and Kentner 2006, Griffin and Critchfield 1972, McMillan 1956, Metcalf |
| Association | CVIS 1995 | Evens and Kentner 2006, Griffin and Critchfield 1972 |
| Association | Westman and Whittaker 1975 | |
| Association | Westman and Whittaker 1975 | |
| Association | Westman and Whittaker 1975 | |
| Association | Evens and Kentner 2006 | Griffin and Critchfield 1972 |
| Association | Westman and Whittaker 1975 | cf. Westman 1975 |
| Alliance | Klein and Evens 2005 | Esser 1993d |
| Association | Klein and Evens 2005 | Lanner 1999, Minnich 1987, 2007, Minnich and Everett 2001, |
| Alliance | Sawyer and Keeler-Wolf 1995 | |
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| Association | Cylinder 1995 | Davis and Borchert 2007, Deghi et al. 1995, Griffin and Critchfield 1972, Jones and |
| Association | Cylinder 1995 | Davis and Borchert 2007, Deghi et al. 1995, Griffin and Critchfield 1972, Jones and |
| Association | Cylinder 1995 | Davis and Borchert 2007, Deghi et al. 1995, Griffin and Critchfield 1972, Jones and |
| Association | Cylinder 1995 | Davis and Borchert 2007, Deghi et al. 1995, Griffin and Critchfield 1972, Jones and |
| Alliance | Klein et al. 2007 | Anderson 2005, Barbour 1988, Barbour et al. 2007 |
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| Association | | |
| Association | Keeler-Wolf et al. 2003b | Lee 2004 |
| Association | Keeler-Wolf et al. 2003b | Klein et al. 2007, Klyver 1931, Kral 1993, Kruckeberg 1984 |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Klein et al. 2007 | |
| Association | Klein et al. 2007 | |
| Association | Keeker-Wolf et al. 2003a | |

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| Association | Evens et al. 2004 | Klein et al. 2007 |
| Association | NatureServe 2007 | |
| Association | | |
| Association | Keeler-Wolf et al. 2003b | Klein et al. 2007, Klyver 1931, Kral 1993, Kruckeberg 1984 |
| Special Stands | Evens and San 2005 | Clark et al. 1990, Esser 1993dd, Griffin and Critchfield |
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| Association | Evens and San 2005 | |
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| Alliance | Evens and Kentner 2006 | Barbour 1988, Cooper 1922 |
| Association | Evens and Kentner 2006 | McDonald and Tappeiner 1990, McMurray |
| Association | Evens and Kentner 2006 | |
| Association | Evens and Kentner 2006 | |
| Alliance | Keeler-Wolf et al. 2001 | |
| Association | Keeler-Wolf et al. 2003a | Evens and Kentner 2006, McMurray 1989b. |
| Association | Evens and Kentner 2006 | |
| Alliance | Jimerson 1996 | Evens and Kentner 2006, Keeler-Wolf et al.2003a |
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| Association | Jimerson et al. 1996 | |
| Association | Jimerson et al. 1996 | |
| Association | Keeler-Wolf et al. 2003a | Evens and Kentner 2006 |
| Association | Jimerson et al. 1996 | |
| Association | Jimerson et al. 1996 | |
| Association | Jimerson et al. 1996 | |
| Association | Jimerson et al. 1996 | |
| Association | Lee 2004 | McDonald and Tappeiner 1990, 2002, McDonald et al. 1983, Paysen |
| Association | Griffin 1976a | Borchert 1987, Cooper 1922, Harrington et al. 1984, 1991, 1992, 1994, Lee 2004, McDonald and Tappeiner 1990, 2002, McDonald et al. 1983, |
| Association | Jimerson et al. 1996 | |
| Association | Jimerson et al. 1996 | |
| Association | Fiedler and Leidy 1987 | Gaman and Casey 2002, Evens and Kentner 2006, Jimerson et al. 1996 |
| Association | Jimerson et al. 1996 | |
| Association | Sawyer 1981a | |
| Association | Jimerson et al. 1996 | |
| Association | Jimerson et al. 1996 | |
| Association | Jimerson et al. 1996 | |
| Association | Jimerson et al. 1996 | |
| Association | Jimerson et al. 1996 | |
| Alliance | Bingham 1999 | Evens and Kentner 2006, NVCS |
| Association | Lee 2004 | McDonald et al. 1983, McDonald and Tappeiner |
| Association | cf. Jimerson et al. 1996 | |
| Association | cf. Jimerson et al. 1996 | |
| Association | cf. Jimerson et al. 1996 | |
| Association | cf. Jimerson et al. 1996 | |
| Association | cf. Jimerson et al. 1996 | |
| Association | cf. Jimerson et al. 1996` | |
| Association | cf. Jimerson et al. 1996 | |
| Association | cf. Jimerson et al. 1996 | |
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| Association | cf. Jimerson et al. 1996 | |
| Association | cf. Jimerson et al. 1996 | |
| Association | cf. Jimerson et al. 1996 | |
| Association | cf. Jimerson et al. 1996 | |
| Association | Mize 1973 | Sawyer 1980, 2006, 2007, Sawyer and Thornburgh 1977 |
| Association | cf. Jimerson et al. 1996 | |
| Association | cf. Jimerson et al. 1996 | |
| Association | cf. Jimerson et al. 1996 | |
| Association | cf. Jimerson et al. 1996 | |
| Association | cf. Jimerson et al. 1996 | |
| Association | Jimerson 1993 | |
| Association | cf. Jimerson et al. 1996 | |
| Association | cf. Jimerson et al. 1996 | |
| Association | cf. Fites 1993 | Franklin et al. 1981 |
| Association | Jimerson 1999 | |
| Association | cf. Jimerson et al. 1996 | |
| Association | Mize 1973 | Sawyer 1980, 2006, 2007, Sawyer and Thornburgh 1977 |
| Association | Keeler-Wolf 1985c | Keeler-Wolf 1987d, 1989a |
| Association | cf. Fites 1993 | Franklin et al. 1981 |
| Association | cf. Fites 1993 | Franklin 1981, cf. Jimerson et al. 1996 |
| Association | cf. Jimerson et al. 1996 | |
| Association | cf. Jimerson et al. 1996 | Thornburgh 1987 |

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| Association | Jimerson et al. 1996 | |
| Association | cf. Jimerson et al. 1996 | |
| Association | Mize 1973 | Sawyer 1980, 2006, 2007, Sawyer and Thornburgh 1977 |
| Association | Thornburgh 1987 | cf. Jimerson et al. 1996, Uchytil 1991d, Williamson |
| Association | Simpson 1980 | Thornburgh 1982, cf. Jimerson et al. 1996 |
| Association | Simpson 1980 | Thornburgh 1982, cf. Jimerson et al. 1996 |
| Association | cf. Jimerson et al. 1996 | |
| Alliance | NatureServe 2007a | Evens and Kentner 2006, Hastings et al. 1997, Clark 1937, |
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| Association | Jimerson 1993 | McCreary 1990, Muick and Bartolome 1988a, Pavlik |
| Association | Jimerson 1993 | Jimerson and Carothers 2002 |
| Association | Jimerson 1993 | Jimerson and Carothers 2002 |
| Association | Lee 2004 | McCreary 1990, Muick and Bartolome 1988a, Pavlik |
| Association | Jimerson 1993 | Jimerson and Carothers 2002 |
| Association | Taylor and Teare 1979a | |
| Association | Sugihara et al. 1987 | Sweitzer and Van Vuren 2002 |
| Association | Sugihara et al. 1987 | Sweitzer and Van Vuren 2002 |
| Association | Sugihara et al. 1987 | Sweitzer and Van Vuren 2002 |
| Association | Stewman 2001 | |
| Association | Sugihara et al. 1987 | Sweitzer and Van Vuren 2002 |
| Association | Sugihara et al. 1987 | Sweitzer and Van Vuren 2002 |
| Association | Sugihara et al. 1987 | Sweitzer and Van Vuren 2002 |
| Association | Leitner and Leitner 1988 | Jimerson 1993, Jimerson and Carothers 2002 |
| Alliance | Sawyer, Keeler-Wolf and Evens 2008 | |
| Association | cf. Fites 1993 | Fites-Kaufman et al. 2007, Franklin 1988, Gordon 1980b, Griffin and |
| Association | Jimerson 1993 | |
| Association | Keeler-Wolf et al. 2003b | Laacke 1990a, Laacke and Fiske 1983a |
| Association | cf. Fites 1993 | Fites-Kaufman et al. 2007, Franklin 1988, Gordon 1980b, Griffin and |
| Association | Jimerson 1993 | |
| Association | Taylor and Teare 1979b | |
| Association | cf. Fites 1993 | Fites-Kaufman et al. 2007, Franklin 1988, Gordon 1980b, Griffin and |
| Association | Jimerson 1993 | |
| Association | cf. Fites 1993 | Fites-Kaufman et al 2007, Franklin 1988, Gordon 1980b, Griffin and |
| Association | Jimerson 1993 | |
| Association | Sawyer 1981a | Sawyer 2006, 2007, Stone and Sumida 1983 |
| Association | Jimerson 1993 | Sawyer |
| Association | Jimerson 1993 | |
| Association | Jimmerson 1993 | |
| Association | Jimerson 1993 | cf. Fites 1993, Fites-Kaufman et al. |
| Association | Jimerson 1993 | |
| Association | Jimerson 1993 | |
| Association | Jimerson 1993 | |
| Association | Jimerson 1993 | |
| Association | Stuart et al. 1992 | |
| Association | Jimerson 1993 | |
| Association | cf. Fites 1993 | Fites-Kaufman et al 2007, Franklin 1988, Gordon 1980b, Griffin and |
| Association | Jimerson 1993 | |
| Alliance | Jimerson et al. 1996 | NatureServe 2007 |
| Association | Klein et al. 2007 | Minore and Zasada 1990, Sawyer 2006, Skinner |
| Association | Fites 1993 | Fonda 1974, Franklin 1988, Franklin and Dyrness 1973, Fried et al. 1988, |
| Association | Fites 1993 | Chambers 2003, Dyrness 1973, Fonda 1974, Franklin 1988, Franklin and Dyrness 1973, Fried et al. 1988, |
| Association | Klein et al. 2007 | Minore and Zasada 1990, Sawyer 2006, Skinner |
| Association | Jimerson et al. 1996 | |
| Association | Jimerson et al. 1996 | |
| Alliance | Keeler-Wolf et al. 2003a | Evens and Kentner 2006 |
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| Association | Jimerson 1993 | |
| Association | Jimerson 1993 | |
| Association | Stuart et al. 1986 | |
| Association | Taylor 1982 | Uchytil 1989b |
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| Association | Keeler-Wolf et al. 2003a | |
| Alliance | Jimerson et al. 1996 | Barbour 1988, Bolsinger and Jaramillo 1990, Evens and Kentner 2006 |
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| Association | Evens and Kentner 2006 | Stuart et al. 1992, 1996 |
| Association | Jimerson et al. 1995 | Evens and Kentner 2006 |
| Association | Jimerson et al. 1995 | |
| Association | Jimerson et al. 1995 | |
| Association | Jimerson et al 1995 | |

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| Association | Jimerson et al. 1995 | |
| Association | Jimerson et al 1995 | |
| Association | Keeler-Wolf et al. 2003b | Evens and Kentner 2006, Jimerson et al. 1995 |
| Association | Taylor and Teare 1979a | Uchytil 1991d, Jimerson et al. 1995, Keeler-Wolf et al. 2003b, Evens and Kentner 2006 |
| Association | Lee 2004 | McKee 1990, Paysen et al. 1980, Rundel et al. |
| Association | Lee 2004 | McKee 1990, Paysen et al. 1980, Rundel et al. |
| Association | Jimerson et al. 1995 | |
| Association | cf. Fites 1993 | Fites-Kaufman et al. 2007, Franklin 1988, Franklin et al. 1981 |
| Association | Sawyer and Stillmann 1977 | |
| Association | Jimerson et al. 1995 | |
| Association | Stuart et al. 1992 | |
| Association | Stuart et al. 1992 | Jimerson et al. 1995, Stuart et al. 1996 |
| Association | Wainwright and Barbour 1984 | Williamson 1980, Williamson and Twombly 1983, Zuckerman 1990 |
| Association | Keeler-Wolf et al. 2003a | |
| Association | Jimerson et al. 1995 | |
| Association | Jimerson et al. 1995 | Keeler-Wolf et al. 2003a |
| Association | Jimerson et al. 1995 | Jimerson et al. 1996, Evens and Kentner 2006 |
| Association | Stuart et al 1992 | Jimerson 1993 |
| Association | Keeler-Wolf 1985c | Keeler-Wolf 1987b, 1988e, 1989a |
| Association | Laidlaw-Holmes 1981 | Sawyer and Stillman 1977, Sawyer and Thornburgh 1977 |
| Association | Sawyer and Stillman 1977 | Sawyer and Thornburgh 1977 |
| Association | Keeler-Wolf 1989a | |
| Association | Sawyer and Stillman 1977 | Sawyer and Thornburgh 1977 |
| Association | Simpson 1980 | Jimerson et al. 1996 |
| Association | Fites 1993 | |
| Association | Simpson 1980 | |
| Association | Sawyer and Stillman 1977 | Sawyer and Thornburgh 1977 |
| Association | cf. Fites 1993 | |
| Association | Taylor 1975a, 1975b | |
| Association | Sawyer et al. 1978 | Jimerson et al. 1995, Jimerson 1993 |
| Association | Jimerson et al. 1995 | Jimerson et al. 1996 |
| Association | Simpson 1980 | Jimerson et al. 1995, 1996 |
| Association | Simpson 1980 | |
| Association | Simpson 1980 | |
| Alliance | Bingham 1999 | Barbour 1988, Barbour et al. 2007 |

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| Association | cf. Fites 1993 | Simpson 1980, Fites-Kaufman et al. 2007, Franklin 1988, Griffin and Critchfield 1972 |
| Association | cf. Fites 1993 | Fites-Kaufman et al. 2007, Franklin 1988, Griffin and Critchfield 1972 |
| Association | cf. Fites 1993 | Fites-Kaufman et al. 2007, Franklin 1988, Griffin and Critchfield 1972 |
| Association | Smith 1994 | |
| Association | Taylor and Teare 1979b | |
| Association | Stuart et al. 1992 | Jimerson 1993, Keeler-Wolf et al. 2003b, Oliver and Ryker 1990, Rundel et al. |
| Association | Smith 1994 | |
| Alliance | Stuart et al. 1992 | cf. Jimerson et al. 1995 |
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| Association | Stuart et al. 1992 | Stuart et al. 1996 |
| Association | Stuart et al. 1992 | Stuart et al. 1996 |
| Association | Stuart et al. 1992 | |
| Association | cf. Jimerson et al. 1995 | Kruckeberg 1984, Powers and Oliver 1990 |
| Association | Jimerson 1993 | |
| Association | cf. Jimerson et al. 1995□ | |
| Association | Jimerson 1993 | |
| Alliance | CNDDB 2003 | Axelrod 1976, Barbour 1988, Paysen et al. 1980, Sawyer et al. 1977, Sullivan 1993a |
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| Association | Talley 1974 | |
| Association | Talley 1974 | |
| Alliance | Keeler-Wolf et al. 2003b | Barbour 1988, Barbour and Minnich 2000, Fites-Kaufman et al. 2007, Franklin 1988, Gordon 1980b, |
| | | |
| Association | Klein and Evens 2006 | |
| Association | Evens and San 2005 | |
| Association | Jimerson 1993 | |
| Association | Jimerson 1993 | |
| Association | Jimerson 1993 | |
| Association | Jimerson 1993 | |
| Association | Jimerson 1993 | |
| Association | Taylor and Teare 1979b | Thorne et al. 2007, Vasek 1985 |
| Association | Imper 1988a | |
| Association | Jimerson 1993 | |
| Association | Imper 1988a | |

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| Association | Jimerson 1993 | |
| Association | Jimerson 1993 | |
| Association | Sawyer and Thornburgh 1977b | Imper 1988a, Jimerson 1993, Stone and Sumida1983, Sugihara et al. 2007, Taylor and Teare 1979b, Thorne et al. 2007, |
| Association | Taylor and Randall 1977 | |
| Association | Sawyer and Thornburgh 1977 | Stone and Sumida1983 |
| Association | Taylor and Randall 1977 | |
| Association | Waddell 1982 | Zouhar 2001a |
| Association | Sawyer and Thornburgh 1977 | |
| Association | Sawyer and Thornburgh 1977 | |
| Alliance | Keeler-Wolf and Moore 2001 | |
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| Association | Keeler-Wolf et al. 2003b | |
| Association | Klein and Evens 2005 | |
| Association | Keeler-Wolf et al. 2003b | cf. Fites 1993, Fites-Kaufman et al. 2007, Franklin 1988, Gordon 1980b, Habeck 1992c, |
| Association | Keeler-Wolf et al. 2003b | |
| Association | cf. Fites 1993 | Keeler-Wolf et al. 2003b, Fites-Kaufman et al. 2007, Franklin 1988, Gordon 1980b, Habeck 1992c, |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Lee 2004 | Sawyer 2007, Stone and Sumida 1983, Zouhar 2001a |
| Association | cf. Fites 1993 | |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Fites 1993 | |
| Association | Lee 2004 | Sawyer 2007, Stone and Sumida 1983, Zouhar 2001a |
| Association | Lee 2004 | Sawyer 2007, Stone and Sumida 1983, Zouhar 2001a |
| Alliance | Parker 1982 | Parker 1984 |
| Association | Potter 1998 | Keeler-Wolf et al. 2003b, Laacke 1990a, b, Laacke and Fiske 1983a, |
| Association | Potter 1998 | Keeler-Wolf et al. 2003b, Laacke 1990a, b, Laacke and Fiske 1983a, |
| Association | Jimerson 1993 | |
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| Association | Jimerson 1993 | |
| Association | Jimerson 1993 | |
| Association | Potter 1998 | Keeler-Wolf et al. 2003b, Laacke 1990a, b, Laacke and Fiske 1983a, |
| Association | Jimerson 1993 | |
| Association | Jimerson 1993 | |
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| Association | Jimerson 1993 | |
| Alliance | Keeler-Wolf et al. 2003b | |
| Association | Muldavin 1982 | Powers and Oliver 1990 |
| Association | Keeler-Wolf et al. 2003b | Potter 2005, Klein et al. 2007, Kruckeberg |
| Association | Klein and Evens 2005 | Evens and San 2005, Griffin and Critchfield 1972, |
| Association | Muldavin 1982 | Powers and Oliver 1990 |
| Alliance | NatureServe 2007a | |
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| Alliance | Potter 1994 | |
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| Association | Potter 1994 | |
| Association | Keeler-Wolf et al. 2003b | Klein and Evens 2005 |
| Association | Jimerson et al. 1995 | |
| Association | Jimerson et al. 1995 | |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Potter 1994 | Potter 1998, Keeler-Wolf et al. 2003b |
| Association | Jimerson et al. 1995 | |
| Association | Jimerson et al. 1995 | |
| Association | Jimerson et al. 1995 | |
| Association | Jimerson et al. 1995 | |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Smith 1994 | Sugihara et al. 2006 |
| Association | Smith 1994 | Sugihara et al. 2006 |
| Association | Smith 1994 | |

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| Association | Smith 1994 | Sugihara et al. 2006 |
| Association | Jimerson 1993 | |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Klein and Evens 2005 | Kruckeberg 1984, Minnich 1987, 2007, Keeler-Wolf et al. 1998b |
| Association | Smith 1994 | Sugihara et al. 2006 |
| Association | Smith 1994 | Sugihara et al. 2006 |
| Association | Waddell 1982 | Zinke 1977, Zobel 1952 |
| Association | Potter 1998 | Keeler-Wolf et al. 2003b |
| Association | Potter 1998 | |
| Association | Klein and Evens 2005 | Kruckeberg 1984, Minnich 1987, 2007 |
| Association | Smith 1994 | Sugihara et al. 2006 |
| Association | Taylor and Teare 1979b | Thorne et al. 2007, Vasek and Thorne |
| Association | Potter 1998 | Keeler-Wolf et al. 2003b |
| Association | Potter 1994 | |
| Association | Smith 1994 | Keeler-Wolf et al. 2003b, Sugihara et al. 2006 |
| Association | Talley 1978 | Keeler- Wolf et al. 2003b |
| Association | Taylor and Teare 1979 | Thorne et al. 2007, Vasek and Thorne |
| Association | Duebendorfer 1987 | Jimerson et al. 1995, Griffin and Critchfield 1972, Habeck 1992b, Jenkinson 1980 |
| Association | Reigel et al. 1990 | Rundel et al. 1977 |
| Association | Taylor 1980 | Keeler- Wolf et al. 2003b |
| Association | Smith 1994 | |
| Association | Smith 1994 | |
| Association | Smith 1994 | |
| Association | Klein and Evens 2005 | Kruckeberg 1984, Minnich 1987, 2007 |
| Association | Jimerson et al.1995 | |
| Association | Potter 1994 | Potter 1998, Keeler-Wolf et al. 2003b |
| Association | Jimerson et al. 1995 | |
| Association | Klein and Evens 2005 | Kruckeberg 1984, Minnich 1987, 2007 |
| Association | Smith 1994 | |
| Alliance | Jimerson et al. 1995 | |
| Association | Jimerson, et al. 1995 | Kruckeberg 1984, Sawyer 2006, 2007, Sawyer and Thornburgh 1977, van Wagtendonk and Fites-Kaufman 2007 |
| Association | Jimerson, et al. 1995 | Kruckeberg 1984, Sawyer 2006, 2007, Sawyer and Thornburgh 1977, van Wagtendonk and Fites-Kaufman 2007 |
| Association | Jimerson, et al. 1995 | Kruckeberg 1984, Sawyer 2006, 2007, Sawyer and Thornburgh 1977, van Wagtendonk and Fites-Kaufman 2007 |
| Association | Jimerson, et al. 1995 | Kruckeberg 1984, Sawyer 2006, 2007, Sawyer and Thornburgh 1977, van Wagtendonk and Fites-Kaufman 2007 |
| Alliance | Keeler-Wolf et al. 2003b | Klein et al. 2007, Barbour 1988, Barbour et al. 2007, Barrett et al. 1980, |

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| Association | Lee 2004 | McDonald 1980b |
| Association | Potter 2005 | |
| Association | Potter 1995 | |
| Association | Lee 2004 | McDonald 1980b |
| Association | Smith 1994 | Solinas et al. 1985, Sugihura et al. 2006, Talley and Griffin 1980 |
| Association | Smith 1994 | Solinas et al. 1985, Sugihura et al. 2006, Talley and Griffin 1980 |
| Association | Smith 1994 | Solinas et al. 1985, Sugihura et al. 2006, Talley and Griffin 1980 |
| Association | Smith 1994 | Solinas et al. 1985, Sugihura et al. 2006, Talley and Griffin 1980 |
| Association | Smith 1994 | Solinas et al. 1985, Sugihura et al. 2006, Talley and Griffin 1980 |
| Association | Smith 1994 | Solinas et al. 1985, Sugihura et al. 2006, Talley and Griffin 1980 |
| Association | Smith 1994 | Solinas et al. 1985, Sugihura et al. 2006, Talley and Griffin 1980 |
| Association | Smith 1994 | Solinas et al. 1985, Sugihura et al. 2006, Talley and Griffin 1980 |
| Association | Lee 2004 | McDonald 1980b |
| Association | Lee 2004 | McDonald 1980b |
| Association | Smith 1994 | Solinas et al. 1985, Sugihura et al. 2006, Talley and Griffin 1980 |
| Association | Smith 1994 | Solinas et al. 1985, Sugihura et al. 2006, Talley and Griffin 1980 |
| Association | Smith 1994 | Solinas et al. 1985, Sugihura et al. 2006, Talley and Griffin 1980 |
| Association | Smith 1994 | Solinas et al. 1985, Sugihura et al. 2006, Talley and Griffin 1980 |
| Association | Fites 1993 | Griffin 1985, Griffin and Critchfield 1972, Habeck 1992d |
| Association | Klein et al. 2007 | |
| Association | Keeler-Wolf 1984a | |
| Association | Smith 1994 | Solinas et al. 1985, Sugihura et al. 2006, Talley and Griffin 1980 |
| Association | Keeler-Wolf 1984a | |
| Association | Simpson 1980 | |
| Association | Sawyer and Thornburgh 1988 | |
| Association | Smith 1994 | Solinas et al. 1985, Sugihura et al. 2006, Talley and Griffin 1980 |
| Association | Smith 1994 | Solinas et al. 1985, Sugihura et al. 2006, Talley and Griffin 1980 |
| Association | Smith 1994 | Solinas et al. 1985, Sugihura et al. 2006, Talley and Griffin 1980 |
| Association | Taylor and Randall 1977 | Fites 1993, Thorne 1977, 1982, Griffin 1985, Griffin and Critchfield 1972, Habeck 1992d |
| Association | Keeler-Wolf 1986c | Keeler-Wolf 1988d |

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| Association | Lee 2004 | |
| Association | Keeler-Wolf 1984a | Vora 1988, Fites 1993, Smith 1994 |
| Association | Smith 1994 | |
| Association | Smith 1994 | |
| Association | Smith 1994 | Solinas et al. 1985, Sugihura et al. 2006, Talley and Griffin 1980 |
| Association | Smith 1994 | |
| Association | Smith 1994 | |
| Association | Smith 1994 | Solinas et al. 1985, Sugihura et al. 2006, Talley and Griffin 1980 |
| Association | Fites 1993 | Griffin 1985, Griffin and Critchfield 19ion72, Habeck 1992d |
| Association | Smith 1994 | |
| Association | Vora 1988 | |
| Association | Klein et al. 2007 | |
| Alliance | Keeler-Wolf et al. 2003b | Barbour 1988, Barbour et al. 2007 |
| Association | Keeler-Wolf et al. 2003b | Kinloch and Scheuner 1990, Laacke 1990b, Laacke |
| Association | Fites 1993, re-named Keeler-Wolf and Moore 2001 | |
| Association | cf. Fites 1993 | |
| Association | cf. Fites 1993 | |
| Association | Sawyer and Thornburgh 1977 | |
| Association | cf. Fites 1993 | |
| Association | Keeler-Wolf et al. 2003b | Kinloch and Scheuner 1990, Laacke 1990b, Laacke |
| Association | Sawyer and Thornburgh 1977 | |
| Association | Smith 1994 | |
| Association | Smith 1994 | |
| Association | cf. Fites 1993 | Habeck 1992a, 1992d, Keeler-Wolf et al. 2003b, |
| Association | cf. Fites 1993 | Habeck 1992a, 1992d |
| Alliance | Smith 1994 | Critchfield 1984, Critchfield and Allenbaugh 1965, |
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| Association | Rundel et al. 1977 | Reigel et al. 1990, Sawyer 2004 |
| Association | Smith 1994 | Stuart and Sawyer 2001, Wells 1964 |
| Alliance | Evens and San 2005 | Barbour 1988, Barry 1989a, 1989b, Bolton and Vogl |
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| Association | Evens and San 2005 | Gause 1966, Griffin and Critchfield 1972, Howard 1992h |
| Association | Evens and San 2005 | Klein and Evens 2005, Gause 1966, Griffin and Critchfield 1972, Howard 1992h, McDonald 1990a, McDonald and Littrell 1976, Minnich 1976, |
| Alliance | Keeler-Wolf et al. 2003a | |
| Association | Keeler-Wolf et al. 2003a | Kilgore and Taylor 1979, Nichols 1989, Rundel 1971, 1972a, 1972b, Rundel et al. 1977, van |
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| Alliance | Alexander et al. 1990 | Cheng 2004 |
| Association | De Jager 1991 | Griffin and Critchfield 1972, Sawyer 1987, 2006, |
| Alliance | NatureServe 2007a | Alexander and Shepperd 1990, De Jager 1991, Griffin |
| Alliance | Keeler-Wolf et al. 2003b | |
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| Association | Potter 1994 | Talley 1977, Thorne 1976, 1977, Griffin and Critchfield 1972, Perala 1990, Shiflet 1994 |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Manning and Padgett 1995 | |
| Association | S. Smith 1998 | |
| Association | S. Smith 1998 | |
| Association | Potter 1994 | Keeler-Wolf et al. 2003b |
| Association | Keeler-Wolf et al. 2003b | |
| Association | S. Smith 1998 | Keeler-Wolf et al. 2003b |
| Association | S. Smith 1998 | |
| Association | Keeler-Wolf et al. 2003b | |
| Association | S. Smith 1998 | |
| Association | S. Smith 1998 | |
| Association | Reigel et al. 1990 | |
| Association | Potter 1994 | |
| Association | Reigel et al. 1990 | S. Smith 1998, Potter 2005, Keeler-Wolf et al. 2003b, Potter 2005 |
| Alliance | Keeler-Wolf et al. 2003b | Arno 1980, 1986, Arno and Hoff 1990, Barbour 1988, |
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| Association | Keeler-Wolf et al. 2003b | Kendall 1995 |
| Association | Reigel et al. 1990 | Riegel et al. 2007, Rundel et al. 1977, Sawyer 2006, 2007 |
| Association | Reigel et al. 1990 | Riegel et al. 2007, Rundel et al. 1977, Sawyer 2006, 2007 |
| Association | Keeler-Wolf et al. 2003b | Kendall 1995 |
| Association | Keeler-Wolf et al. 2003b | Kendall 1995, Taylor 1984, Weaver 2001 |
| Association | Sawyer and Thornburgh 1977 | |
| Association | Taylor 1984 | Weaver 1991, Keeler-Wolf et al. 2003b, Kendall 1995 |
| Association | Reigel et al. 1990 | Riegel et al. 2007, Rundel et al. 1977, Sawyer 2006, 2007 |

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| Association | Taylor 1984 | Weaver 1991 |
| Alliance | NatureServe 2007a | |
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| Association | Ball 1976 | Eckert and Sawyer 2002, Barbour 1988, Eckert 2006, Eckert and |
| Association | Eckert and Sawyer 2002 | Griffin and Critchfield 1972, Howard 2004a, Mastroguiseppe |
| Association | Eckert and Sawyer 2002 | Griffin and Critchfield 1972, Howard 2004a, Mastroguiseppe |
| Association | Ball 1976 | Barbour 1988, Eckert 2006, Eckert and Eckert 2007 |
| Association | Eckert and Sawyer 2002 | Griffin and Critchfield 1972, Howard 2004a, Mastroguiseppe |
| Association | Whipple and Cope 1979 | |
| Association | Haultain, pers. comm. | |
| Alliance | Keeler-Wolf et al. 2003b | Thomas et al. 2004, Klein and Evens 2005 |
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| Association | Klein and Evens□ | Paysen et al. 1980, Sawyer and Keeler-Wolf |
| Association | Griffin and Critchfield 1972 | Ball 1976, Barney 1980, Hanes 1976, Johnson 2001 |
| Association | Taylor 1979 | Thomas et al. |
| Alliance | Thomas et al. 2004 | |
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| Association | Taylor 1979 | Thorne 1976, Thorne et al. 2007, Vasek and |
| Association | Taylor 1979 | Thorne 1976, Thorne et al. 2007, Vasek and |
| Alliance | NatureServe 2007 | Boyd 1980a, Foiles et al. 1990, Franklin 1980a, 1988, |
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| Alliance | Jimerson et al. 1995 | |
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| Association | Jimerson 1999 (1994) | |
| Association | Jimerson 1999 (1994) | |
| Association | Jimerson 1999 (1994) | Jules et al. 2002, Kruckeberg 1984, Sawyer 2006, 2007 |
| Association | Jimerson et al. 1995 | |
| Association | Jimerson et al. 1995 | |
| Association | Jimerson et al. 1995 | |
| Association | Jimerson et al. 1995 | |
| Association | Jimerson 1999 (1994) | |
| Association | Jimerson 1999 (1994) | |
| Provisional Association | Jimerson 1994 (1999 suppl) | |
| Association | Jimerson 1994 | |
| Association | Jimerson et al. 1995 | |
| Association | Jimerson et al. 1995 | |
| Association | | |
| Provisional Association | Jimerson 1999 (1994) | |
| Association | Jimerson et al. 1995 | |
| Association | Jimerson 1994 | |
| Association | Jimerson 1999 (1994) | |
| Association | Jimerson 1999 (1994) | |
| Association | Simpson 1980 | |
| Association | Jimerson 1999 (1994) | |
| Association | Jimerson 1999 (1994) | |
| Association | Jimerson 1999 (1994) | |
| Association | Jimerson 1999 (1994) | |
| Association | Jimerson 1994 (1999 suppl) | |
| Association | Jimerson et al. 1995 | |
| Association | Jimerson 1999 (1994) | |
| Association | Jimerson 1999 (1994) | |
| Association | Jimerson 1999 (1994) | |
| Association | Jimerson et al. 1995 | |
| Association | | |
| Association | Jimerson et al. 1995 | |
| Association | Jimerson et al. 1995 | Simpson 1980, Stein 1980b, Uchytil 1990d, Zobel |
| Association | | |
| Alliance | | |
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| Association | Westman and Whittaker 1975 | Zinke 1977 |
| Association | Imper and Sawyer 1987 | Minore 1980, Sawyer 2007 |
| Association | Imper and Sawyer 1987 | Minore 1980, Sawyer 2007 |
| Association | Imper and Sawyer 1987 | Minore 1980, Sawyer 2007 |
| Alliance | Barry 1989a | Barry 1989b, Barbour 2007, Cheatham and Haller 1975, Cope 1993b |
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| Association | cf. Green 1999 | Griffin |
| Association | Green 1999 | |
| Alliance | Keeler-Wolf et al. 2003b | Evens and Kentner 2006 |

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| Association | Borchert et al. 1988 | |
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| Association | Borchert et al. 1988 | |
| Association | Mahoney 1999 | |
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| Association | | |
| Association | Evens and Kentner 2006 | Franklin 1988, Griffin and Critchfield 1972, Griffith 1992d |
| Association | Borchert et al. 1988 | |
| Association | Keeler-Wolf et al. 2003a | Evens and Kentner 2006, Franklin 1988, Griffin and Critchfield 1972, Griffith 1992d |
| Association | Jimerson 1999 | |
| Association | Keeler-Wolf et al. 2003a | Evens and Kentner 2006, Franklin 1988, Griffin |
| Association | Matthews 1986a | Matthews 1986b, Noss 2000, |
| Association | Matthews 1986a | Matthews 1986b, Noss 2000, |
| Association | Lenihan 1990 | |
| Association | Matthews 1986a | Matthews 1986b, Noss 2000, |
| Association | Lenihan 1990 | |
| Association | Mahoney 1999 | |
| Association | Lenihan 1990 | |
| Association | Evens and Kentner 2006 | Franklin 1988, Griffin and Critchfield 1972, Griffith 1992d, |
| Association | Borchert et al. 1988 | |
| Association | Lenihan 1990 | |
| Association | Lenihan 1990 | |
| Association | Lenihan 1990 | |
| Association | Borchert et al. 1988 | |
| Association | Matthews 1986a | Matthews 1986b, Noss 2000, |
| Association | Lenihan 1990 | Taylor 1982, Veirs 1982, Zinke 1977 |
| Association | Lenihan 1990 | |
| Association | Borchert et al. 1988 | |
| Alliance | NatureServe 2007a | Franklin 1988, Franklin and Dyrness 1973, Franklin et |
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| Association | Keeler-Wolf 1987f | Olson et al. 1990, Packee 1990, Roy 1980, Sawyer 2007, |
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| Alliance | NatureServe 2007a | Cope 1992a |
| Association | Hunt 1976 | Langer 1988, Lanner 1999, Parker 1988, Sawyer 2006, 2007, Skinner et al. 2006, NatureServe 2007a |
| Alliance | Potter 1998 | |
| Association | Potter 1994 | |
| Association | Potter 1998 | Keeler-Wolf et al. 2003b, Laacke 1990b, Laacke and Fiske 1983a, |
| Association | Jimerson 1993 | Sawyer and Thornburgh 1977, Waddell 1982 |
| Association | Jimerson 1993 | |
| Association | Potter 2005 | Rundel et al. 1977, Sawyer 2006, 2007 |
| Association | Potter 1994 | Potter 1998 |
| Association | Potter 1998 | Potter 2005, Rundel et al. 1977, Sawyer 2006, 2007, Keeler-Wolf et al. 2003b |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Jimerson 1993 | |
| Association | Imper 1988a | Keeler-Wolf et al. 2003b |
| Association | Imperc 1988b | Simpson 1980, Sugihara et al. 2007, Taylor and Halpern 1991 |
| Association | Sawyer and Thornburgh 1977 | Imper 1988b |
| Association | Sawyer and Thornburgh 1977 | |
| Association | Sawyer and Thornburgh 1977 | |
| Association | Waddell 1982 | |
| Association | Jimerson 1993 | Sawyer and Thornburgh 1977, Waddell 2982 |
| Association | Imper 1988b | |
| Association | Potter 1994 | |
| Association | Potter 1994 | Potter 1998 |
| Association | Potter 1994 | Potter 1998 |
| Association | Sawyer an Thornburgh 1977 | Jimerson 1993, Waddell 1982 |
| Association | Imper 1988a | Jimerson 1993, Simpson 1980, Sugihara et al. |
| Association | Jimerson 1993 | |
| Association | Sawyer and Thornburgh 1977 | |
| Association | Jimerson 1993 | |
| Association | Imper 1988a | |
| Association | Potter 1994 | Potter 1998 |
| Alliance | Sawyer and Thornburgh 1977 | Antos and Zobel 1984, Franklin 1988, Griffith 1992a, |
| Alliance | Potter 1994 | Keeler-Wolf et al 2003b |
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| Association | Potter 1994 | Keeler-Wolf et al. 2003b, Keeley 1981, Klein and Evens |
| Association | Keeler-Wolf et al. 2003b | |
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| Association | Keeler-Wolf et al. 2003b | Keeley 1981 |

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| Association | Potter 1994 | Keeler-Wolf et al 20034b, Potter 2005 |
| Association | Keeler-Wolf et al. 2003b | Keeley 1981 |
| Association | Taylor 1984 | Keeler-Wolf et al. 2003b |
| Association | Potter 2005 | |
| Association | Taylor 1980 | |
| Association | Potter 1994 | |
| Association | Keeler-Wolf et al. 2003b | Keeley 1981, Taylor 1984 |
| Association | Taylor 1984 | Keeler-Wolf et al. 2003b, Potter 2005 |
| Association | Potter 2005 | |
| Association | Taylor 1984 | |
| Association | Potter 2005 | |
| Association | Keeler-Wolf et al. 2003b | Keeley 1981 |
| Association | Potter 2005 | |
| Alliance | Keeler-Wolf et al. 2003b | Barry 1989a,1989b, Boyd 1980b, Cheatham and |
| Association | Duebendorfer 1987 | Fites-Kaufman et al. 2007, Graham 1990, Griffin and Critchfield 1972, Griffith 1992c, Jimerson et al. 1995, Keeler-Wolf 1986e |
| Association | Keeler-Wolf et al. 2003b | Kruckeberg 1984, Sawyer 2006, 2007 |
| Association | Jimerson et al. 1995 | |
| Association | Keeler-Wolf et al. 2003b | Kruckeberg 1984, Sawyer 2006, 2007 |
| Association | Whipple and Cope 1979 | |
| Association | Sawyer and Thornburgh 1977 | |
| Association | Simpson 1980 | van Wagtendonk and Fites-Kaufman 2007 |
| | | |
| Alliance | NatureServe 2007a□ | Keeler-Wolf et al. 2003b |
| Association | Potter 1998 | Keeler-Wolf et al. 2003b, Means 1990 |
| Association | Keeler-Wolf et al. 2003b | Means 1990 |
| Association | Parker 1988 | Keeler-Wolf et al. 2003b, Means 1990 |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Taylor 1984 | Tesky 1992f |
| Association | Imper 1988a | |
| Association | Imper 1988a | Sawyer and Thornburgh 1977 |
| Association | Sawyer and Thornburgh 1977 | |
| Association | Jimerson 1993 | |
| Association | Sawyer and Thornburgh 1977 | |
| Association | Parker 1988 | |
| Alliance | Keeler-Wolf et al. 2003b | Adams 1975, Barbour 1988, Dealy 1990, Dealy et al. |
| Association | Potter 1998 | Keeler-Wolf et al. 2003b, R. Martin 1980, Minnich |
| Association | Keeler-Wolf et al. 2003b | R. Martin 1980, Minnich 2007, Minnich and Everett 2001 |
| Association | Potter 1998 | Keeler-Wolf et al. 2003b, R. Martin 1980, Minnich |
| Association | Potter 1998 | Keeler-Wolf et al. 2003b, R. Martin 1980, Minnich |
| Association | Potter 1998 | Keeler-Wolf et al. 2003b, R. Martin 1980, Minnich |
| Alliance | Thomas et al. 2004 | |
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| Association | Keeler-Wolf and Thomas 2000 | Meeuwig and Bassett 1983, Reid et al. |
| Association | Keeler-Wolf and Thomas 2000 | Meeuwig and Bassett 1983, Reid et al. |
| Association | Keeler-Wolf and Thomas 2000 | Meeuwig and Bassett 1983, Reid et al. |
| Association | Keeler-Wolf and Thomas 2000 | Meeuwig and Bassett 1983, Reid et al. |
| Association | Keeler-Wolf and Thomas 2000 | Meeuwig and Bassett 1983, Reid et al. |
| Association | Keeler-Wolf and Thomas 2000 | Meeuwig and Bassett 1983, Reid et al. |
| Association | Keeler-Wolf and Thomas 2000 | Meeuwig and Bassett 1983, Reid et al. |
| Association | Keeler-Wolf and Thomas 2000 | Meeuwig and Bassett 1983, Reid et al. |
| Association | Keeler-Wolf and Thomas 2000 | Meeuwig and Bassett 1983, Reid et al. |
| Association | Keeler-Wolf and Thomas 2000 | Meeuwig and Bassett 1983, Reid et al. |
| Association | Keeler-Wolf and Thomas 2000 | Meeuwig and Bassett 1983, Reid et al. |
| Special Stands | Griffin and Critchfield 1972 | Anderson 2002b, Bailey 1987, des Lauriers and Ikeda |
| Alliance | Keeler-Wolf et al. 1998b | Thomas et al. 2004 |
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| Association | Keeler-Wolf et al. 2005 | |
| Association | Keeler-Wolf and Thomas 2000 | Keeler-Wolf et al. 2005 |
| Association | Keeler-Wolf and Thomas 2000 | |
| Association | Keeler-Wolf and Thomas 2000 | |
| Association | Keeler-Wolf and Thomas 2000 | Meeuwig and Bassett 1983, Meeuwig et al. 1990, |
| Provisional Association | Keeler-Wolf et al. 2003b | |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Keeler-Wolf and Thomas 2000 | Meeuwig and Bassett 1983, Meeuwig et al. 1990, |
| Association | Evens 2000 | Griffin and Critchfield 1972 |

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| Association | Keeler-Wolf and Thomas 2000 | |
| Association | Keeler-Wolf and Thomas 2000 | |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Keeler-Wolf and Thomas 2000 | |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Keeler-Wolf and Thomas 2000 | |
| Alliance | NatureServe 2007a | Hickson et al. 2007 |
| | | |
| Association | Keeler-Wolf and Thomas 2000 | |
| Association | cf. Vasek 1966 | Thorne et al. 2007, Tirmenstein 1999g, Vasek and Thorne 1977, Volland 1982 |
| Association | Hickson et al. 2007 | Hickson et al. 2008, R. Martin 1980, Paysen et al. 1980, Riegel et al. 2006, Sawyer 2006, Thorne 1982, |
| Association | Hickson et al. 2007 | Hickson et al. 2008, R. Martin 1980, Paysen et al. 1980, Riegel et al. 2006, Sawyer 2006, Thorne 1982, |
| Semi-natural Stands | cf. Evens and San 2005 | Klein and Evens 2005, Keeler-Wolf and Evens 2006, Bean and Russo 2005, Boyd 1985a, 2000, Bulman |
| Semi-natural Stands | cf. Keeler-Wolf and Evens 2006 | DiTomaso and Healey 2007, (Stillwater Sciences and URS 2007 |
| Association | Stillwater Sciences and URS 2007 | Wagner et al. 1999 |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | Stillwater Sciences and URS 2007 | |
| | | |
| Alliance | S. Smith 1998 | Crane 1989a, Potter 2003 |
| Association | S. Smith 1998 | |
| Association | Hickson and Keeler-Wolf 2007 | |
| Association | Hickson and Keeler-Wolf 2007 | |
| Association | Potter 2005 | |
| | | |
| Alliance | NatureServe 2007a | Uchytil 19889f |
| | | |
| Association | Holstein 1984 | Harris 1988, Manning and Padgett 1995, Uchytil 1989f |
| Provisional Alliance | S. Smith 1998 | |
| Alliance | Manning and Padgett 1995 | |
| Association | Manning and Padgett 2005 | |
| Association | Manning and Padgett 2005 | |
| Association | Manning and Padgett 2005 | |
| Association | Manning and Padgett 2005 | |
| Provisional Alliance | Kagan et al. 2000 | Anderson 2001a, Nesom 2000. |
| Alliance | Brayshaw 1976 | Hansen et al. 1988 |
| Association | Potter 2005 | Reid et al. 1999 |
| Association | S. Smith 1998 | Uchytil 1989b |
| Association | Manning and Padgett 1995 | |
| Provisional Alliance | | |
| Provisional Alliance | S. Smith 1998 | Furlow 1997 |
| Alliance | Anderson 2001d | Keeler-Wolf et al. 2003b |
| Association | Burke 1982 | Johnston 1987 |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Taylor 1984 | Youngblood et al. 1985 |
| Association | Major and Taylor 1977 | Sawyer and Keeler-Wolf 2007 |
| Association | S. Smith 1998 | |
| Alliance | S. Smith 1998 | Tesky 1992d |
| Association | S. Smith 1998 | Tesky 1992d |
| Alliance | Keeler-Wolf and Moore 2001 | |
| Association | Keeler-Wolf and Moore 2001 | |
| Association | Manning and Padgett 1995 | |
| Association | Potter 2005 | Keeler-Wolf et al. 2003b |
| Association | Major and Taylor 1977 | |
| Alliance | S. Smith 1998 | |
| Association | S. Smith 1998 | Uchytil 1991e, Weixelman et al. 1999 |
| Association | Manning and Padgett 1995 | Potter 2005, Smith 1998, Uchytil 1991e, Weixelman et al. 1999 |
| Alliance | Potter 2005 | |
| Association | Nachlinger 1992 | |
| Association | Potter 2005 | |
| Association | Taylor and Teare 1979a | |
| Association | Potter 2005 | |
| Alliance | Keeler-Wolf and Moore 2001 | Potter 2005 |
| Provisional Association | Keeler-Wolf and Moore 2001 | |
| Association | Potter 2005 | |
| Association | Manning and Padgett 1995 | S. Smith 1998, Uchytil 1989h, Weixelman et al. 1999, Zasada 1986 |
| Association | Manning and Padgett 1995 | S. Smith 1998, Uchytil 1989h, Weixelman et al. 1999, Zasada 1986, Uchytil 1989h, Weixelman et al. |
| Association | Vaghti 2003 | |
| Alliance | Taylor 1984 | Manning and Padgett 1995, Cheng 2004, Klikoff 1965 |

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| Association | Taylor 1984 | Keeler-Wolf et al. 2003b, Major and Taylor 1977 |
| Association | Taylor 1984 | Keeler-Wolf et al. 2003b, Major and Taylor 1977 |
| Association | Taylor 1984 | Keeler-Wolf et al.2003b, Major and Taylor 1977, Potter 2005, Sawyer and Keeler-Wolf |
| Association | Manning and Padgett 1995 | |
| Provisional Alliance | Keeler-Wolf et al. 2003b | Keeler-Wolf and Keeler-Wolf 1981, Keeler-Wolf et al. 2003b, Nachlinger 1992, Potter 2005, Taylor 1984, |
| Provisional Association | Keeler-Wolf et al. 2003b | |
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| Alliance | Keeler-Wolf et al. 2001 | |
| Association | Keeler-Wolf et al. 2001 | |
| Alliance | Cheatham and Haller 1975 | us 1997, Barry 1989a, 1989b, Brayshaw 1976 |
| Association | Duebendorfer 1989 | Hitchcock et al. 1961 |
| Association | Imper et al. 1987 | Paysen et al. 1980, 1982, Pickart and Barbour 2007, Reed 1993a, Thorne 1976, Wiedemann 1966, 1984 |
| Provisional Alliance | Brayshaw 1976 | Paysen et al. 1980, Shanfield 1984 |
| Alliance | Keeler-Wolf et al. 2003b | Potter 2005, Klein et al. 2007 |
| | | |
| Association | Klein and Evens 2006 | |
| Association | Stuart et al. 1992 | |
| Association | Potter 2005 | |
| Association | Klein and Evens 2005 | Keeler-Wolf and Evens 2006, Evens, Keeler-Wolf, San, Kentner, and Schindel 2005 |
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| Association | Evens and San 2005 | Faber et al. 1989 |
| Association | Potter 2005 | Klein et al. 2007 |
| Association | Keeler-Wolf et al. 2003b | |
| Association | cf. Potter 2005 | |
| Association | cf. Fites 1993 | Griffin and Critchfield 1972, Hanes 1976 |
| Association | Stuart et al. 1992 | |
| Association | Klein et al. 2007 | |
| Association | Potter 2005 | Klein et al. 2007 |
| Association | Jimerson 1993 | Keeler-Wolf 1990d |
| Association | S. White 1994a | |
| Association | Lee 2004 | McBride 1994, Minnich 1976, Paysen et al. 1980 |
| Association | Potter 2005 | Klein et al. 2007 |
| Association | Taylor and Teare 1979b | Hickson and Keeler-Wolf 2007, Holstein 1984, Uchytil 1989b, Vogl 1976 |
| Association | Taylor and Teare 1979a | Uchytil 1989b, Vogl 1976 |
| Association | Taylor 1975a, b | Potter 2003, Chambers 2003, Potter 2005, Hickson and Keeler-Wolf 2007, Klein et al. 2007, Taylor and Randall 1977 |
| Association | Taylor and Teare 1979a | |
| Association | Chambers 2003 | |
| Association | Minnich 1976 | Paysen et al. 1980, Lee 2004, McBride 1994 |
| Association | Borchert et al. 2000 | Bowler 1989, Boyd et al. 1995, Capelli and Stanley 1984 |
| Association | Lee 2004 | McBride 1994, Minnich 1976, Paysen et al. 1980 |
| Association | Potter 2005 | |
| Association | Potter 2005 | Klein et al. 2007, Hickson and Keeler-Wolf 2007 |
| Alliance | Keeler-Wolf and Vaghti 2000 | |
| Association | Keeler-Wolf and Vaghti 2000 | Hickson and Keeler-Wolf 2007 |
| Association | Potter 2005 | Klein et al. 2007, Owston 1990 |
| Association | S. Smith 1998 | Vaghti and Greco 2007 |
| Association | Potter 2005 | |
| Alliance | Potter 2005 | |
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| Association | cf. Manning and Padgett 1995 | Keeler-Wolf et al. 2003b |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Stillwater Sciences and URS 2007 | Stillwater Sciences 2007a, Roberts 1984, Roberts et al. 1980, Sawyer 2006, 2007, Steinberg |
| Association | Stillwater Sciences and URS 2007 | Stillwater Sciences 2007a, Roberts 1984, |
| Association | Stillwater Sciences and URS 2007 | Stillwater Sciences 2007a, Roberts 1984, |
| Association | Stillwater Sciences and URS 2007 | Stillwater Sciences 2007a, Roberts 1984, |
| Association | S. Smith 1998 | |
| Provisional Association | Keeler-Wolf et al. 2003b | |
| Association | S. Smith 1998 | |
| Association | cf. Manning and Padgett 1995 | McBride 1994 |
| Alliance | Keeler-Wolf et al. 2003a | Hickson and Keeler-Wolf 2007, Potter 2005 |
| Association | S. Smith 1998 | Uchytil 1989f |
| Association | Keeler-Wolf et al. 2003a | |
| Association | Hickson and Keeler-Wolf 2007 | Holstein 1984 |
| Association | Potter 2005 | |
| Association | S. Smith 1998 | Uchytil 1989f |

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| Alliance | Stillwater Sciences 2001 | Hickson and Keeler-Wolf 2007, Hosner 1960 |
| Association | Maeglin and Ohmann 1973 | Hickson and Keeler-Wolf 2007, Overton 1990, Rosario |
| Special Stands | Hickson and Keeler-Wolf 2007 | Aradhya et al. 2005, Griffin and Critchfield 1972, |
| | | |
| Alliance | Keeler-Wolf et al. 1997 | Barry 1989a, 1989b |
| Association | Stillwater Sciences and URS 2007 | Sullivan1994, Thompson 1961, Thorne |
| Association | Evens and San 2005 | Faber et al. 1989, Griffin and |
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| Association | Klein and Evens 2005 | Minnich 1995 |
| Association | Keeler-Wolf et al. 1997 | Keeler-Wolf and Evens 2006, Stillwater Sciences and URS 2007, Sullivan1994, |
| Association | Evens and San 2004 | |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | White 1994a | Stillwater Sciences and URD 2007 |
| Association | Klein and Evens 2006 | |
| Association | Bendix 1994 | Boyd et al. 1995, Bowler 1989 |
| Association | Campbell 1980 | Capelli and Stanley 1984, Cheatham and Haller 1975, Evens and San 2005, Keeler-Wolf and Evens 2006, Stillwater Sciences and |
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| Association | Keeler-Wolf et al. 1997 | Evens and San 2005 |
| Association | Keeler-Wolf et al. 1997 | |
| Association | Keeler-Wolf et al. 1997 | |
| Association | Potter 2005 | |
| Alliance | Keeler-Wolf et al. 1998b | Thomas et al. 2004, Potter 2005, Evens and San |
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| Association | Vaghti 2003 | |
| Association | Stillwater Sciences and URS 2007 | |
| Association | Keeler-Wolf et al. 1998b | Evens ans San 2005 |
| Association | Stillwater Sciences and URS 2007 | |
| Association | Stillwater Sciences and URS 2007 | |
| Association | Evens and San 2005 | |
| Association | Evens and San 2005 | Klein et al. 2007, Klein and Evens 2005, Potter 2005, Sands 1980, Shiflet 1994, Stillwater |
| Association | Klein and Evens 2005 | |
| Association | Klein and Evens 2005 | |
| Association | Stillwater Sciences and URS 2007 | |
| Association | Spolsky 1979 | |
| Association | Stillwater Sciences and URS 2007 | |
| Association | Vaghti 2003 | |
| Association | Vaghti 2003 | |
| Association | Vaghti 2003 | |
| Association | Evens and San 2005 | Klein and Evens 2005, Faber et al 1989, Griffin and Critchfield 1972, Holstein 1984, MacMahon 1988, McBride 1994, |
| Association | Vaghti 2003 | |
| Association | Vaghti 2003 | |
| Association | Keeler-Wolf and Thomas 2000 | |
| Association | Vaghti 2003 | Klein et al. 2007 |
| Alliance | Evens and San 2005 | Klein and Evens 2005, Hickson and Keeler-Wolf |
| Association | Reed 1993a | Keeler-Wolf et al. 2005, Klein et al. 2007, Klein and Evens 2005, Stromberg 2001, Vaghti and Greco 2007. |
| Association | Hickson and Keeler-Wolf 2007 | |
| Association | Hickson and Keeler-Wolf 2007 | |
| Association | Evens and San 2005 | Faber et al. 1989, |
| Association | Klein and Evens 2005 | Reed 1993a, Stromberg 2001, Vaghti and Greco 2007 |
| Association | Evens and San 2005 | Faber et al. 1989, Holstein 1984, Klein and Evens 2005, Reed |
| Association | Evens and San 2005 | Faber et al. 1989, Holstein 1984, Klein and Evens 2005, Reed |
| Association | Hickson and Keeler-Wolf 2007 | |
| Alliance | Potter 2005 | Evens and San 2005, Klein and Evens |
| Association | Potter 2005 | Klein et al. 2007, Read and Sprackling 1980, Vogl 1976 |
| Association | Evens and Kentner 2006 | |
| Association | Keeler-Wolf and Vaghti 2000 | Klein et al. 2007 |
| Association | Keeler-Wolf and Evens 2006 | NatureServe 2007b |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | Capelli and Stanley 1984 | Bendix 1994, Bowler 1989 |
| Association | Klein and Evens 2006 | Evens and San 2005 |
| Alliance | Keeler-Wolf et al. 1998b | Anderson and Roderick 2005, Burk 1977, Cornett |
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| Association | Keeler-Wolf et al. 1998b | possibly Spolsky 1979 |

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| Association | Keeler-Wolf□ | MacMahon 1988, McClenaghan and |
| Provisional Alliance | Keeler-Wolf et al. 1998b | Klein and Evens 2005, Hickman 1993 |
| Alliance | Evens and San 2005 | Shanfield 1984 |
| | | |
| Association | Keeler-Wolf et al. 1998b | Keeler-Wolf and Evens 2006, NatureServe 2007b, Potter 2005 |
| Association | Stillwater Sciences and URS 2007 | |
| Association | Evens, Keeler-Wolf, Klein and Hickson 2005 | |
| Association | Stillwater Sciences and URS 2007 | |
| Association | Klein and Evens 2005 | Boyd et al.1995 |
| Association | Stillwater Sciences and URS 2007 | |
| Association | Potter 2005 | |
| Alliance | Evens 2000 | Beatley 1976, Keeler-Wolf et al. 2005 |
| Association | Keeler-Wolf and Thomas 2000 | Evens 2000, Keeler-Wolf 2007b |
| Association | Keeler-Wolf and Thomas 2000 | Evens 2000, Keeler_Wolf 2007b |
| Association | Keeler-Wolf and Thomas 2000 | Evens 2000, Keeler-Wolf 2007b, Shanfield 1984, Thomas et al. 2004, |
| Alliance | Cheatham and Haller 1975 | Barry 1989a, 1989b, Holstein 1984, Holland 1986 |
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| Association | Thorne 1976 | Klein et al. 2007, Snyder 1991 |
| Alliance | Keeler-Wolf and Thomas 2000 | Klein and Evens 2005, McMinn 1953, Reid et al. 1999, USDA-NRCS 2005b |
| Provisional Association | Keeler-Wolf and Thomas 2000 | |
| Association | Klein and Evens 2006 | McMinn 1953, Reid et al. 1999, USDA-NRCS 2005b |
| | | |
| Provisional Alliance | Kagan et al. 2004 | Sawyer 2006, Evens and Kentner 2006 |
| Alliance | Keeler-Wolf and Vaghti 2000 | Evens and San 2005, Keeler-Wolf and Evens |
| Association | Keeler-Wolf and Vaghti 2000 | Evens and San 2005, Keeler-Wolf and Evens 2006, NatureServe |
| Association | Keeler-Wolf and Vaghti 2000 | |
| Association | Keeler-Wolf and Vaghti 2000 | |
| Alliance | Evens et al. 2006 | |
| Association | Evens et al. 2006 | |
| Alliance | Evens 2000 | Keeler-Wolf and Vaghti 2000, Vaghti 2003, Thomas et al. 2004 |
| Association | Vaghti 2003 | Klein et al. 2007, NatureServe 2007b, Paysen et al. 1980, Reid |
| Association | Hickson and Keeler-Wolf 2007 | Holland 1986, Holstein 1984 |
| Association | Vaghti 2003 | |
| Association | Klein et al. 2007 | |
| Association | Vaghti 2003 | |
| Association | Keeler-Wolf and Thomas 2000 | Evens 2000 |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Keeler-Wolf et al. 2003a | Evens and San 2005, Klein and Evens 2005, Potter 2005 |
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| Association | Keeler-Wolf et al. 1998b | Hickson and Keeler-Wolf 2007, Holstein 1984 |
| Association | Keeler-Wolf et al. 2003a | |
| Association | Potter 2005 | Zedler and Scheid 1988 |
| Association | Zedler and Scheid 1988 | Evens and Kentner 2006 |
| Association | Keeler-Wolf and Evens 2006 | Bendix 1994, Bowler 1989, Capelli and Stanley 1984, Evens and San 2005, NatureServe 2007b, Paysen |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | Capelli and Stanley 1984 | Bendix 1994, Bowler 1989 |
| Association | Keeler-Wolf et al. 2003a | Klein et al. 2007, Manning and Padgett 1995, Minnich 1976 |
| Alliance | Evens and San 2005 | Keeler-Wolf and Evens 2006 |
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| Association | Evens and San 2005 | Holland 1986 |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | Keeler-Wolf and Evens 2006 | |
| Semi-natural Stands | Evens and San 2005 | DiTomaso and Healy 2007, T. Dudley 2000,  Horton 1949, Hoshovsky 1996,  Keeler-Wolf and Evens 2006, Klein and Evens |
| Stand Type | Evens and San 2005 | Horton 1949, Hoshovsky 1996, |
| Stand Type | cf. Vaghti 2003 | |
| Semi-natural Stands | Paysen et al. 1980 | Brooks and Minnich 2006, Carpenter 2005, DiTomaso |

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| Alliance | Keeler-Wolf et al. 2003 | |

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| Association | | Christensen and Muller 1975 | Borchert et al. 2004, Davis et al. 1988, Evens and San 2006, Evens et al. 2004, 2006, Keeler-Wolf et al. 2003b, Klein and Evens 2005, Klein et al. |
| Association | | Gordon and White 1994 | Hanes 1965, 71,74,76,77, 94, Hanes and Jones 1967, Horton 1960, 1980, Horton and Kraebel 1955, Keeler-Wolf 1990b |
| Association | | Evens, San and Taylor 2004 | Klein et al. 2007, McMurray 1990a, Mills 1983, Minnich 1976, Moreno and Oechel 1991, |
| Association | | NatureServe 2007b | Reid et al. 1999, Schmida and Whittaker 1981, Shiflet 1994, Vogl and Schorr 1972, Stohlgren et al. 1984, Vogl 1976, Zammit and Zedler 1988 |
| Association | | Klein et al. 2007 | McMurray 1990a, Patric and Hanes 1964 |
| Association | | Gordon and White 1994 | Hanes 1965, 71,74,76,77, 94, Hanes and Jones 1967, Horton 1960, 1980, Horton and Kraebel 1955, Keeler-Wolf 1990b |
| Association | | Gordon and White 1994 | Hanes 1965, 71,74,76,77, 94, Hanes and Jones 1967, Horton 1960, 1980, Horton and Kraebel 1955, Keeler-Wolf 1990b |
| Association | | Gordon and White 1994 | Hanes 1965, 71,74,76,77, 94, Hanes and Jones 1967, Horton 1960, 1980, Horton and Kraebel 1955, Keeler-Wolf 1990b |
| Association | | Gordon and White 1994 | Hanes 1965, 71,74,76,77, 94, Hanes and Jones 1967, Horton 1960, 1980, Horton and Kraebel 1955, Keeler-Wolf 1990b |
| Association | | Evens and Kentner 2006 | Keeler-Wolf et al. 2003a |
| Association | | Klein and Evens 2005~ | |
| Association | | Keeler-Wolf et al. 2003a | Hanes 1965, 71,74,76,77, 94, Hanes and Jones 1967, Horton 1960, 1980, Horton and Kraebel 1955, Keeler-Wolf 1990b |
| Association | | Klein and Evens 2005 | Klein et al. 2007, McMurray 1990a, Mills 1983, Minnich 1976, Moreno and Oechel 1991, |
| Association | | Klein and Evens 2005 | Keeler-Wolf and Evens 2006, Keeley |
| Association | | Gordon and White 1994 | Klein and Evens 2005, many others, see MCVII |
| Association | | Gordon and White 1994 | Hanes 1965, 71,74,76,77, 94, Hanes and Jones 1967, Horton 1960, 1980, Horton and Kraebel 1955, Keeler-Wolf 1990b |
| Association | | Evens and San 2006 | |
| Association | | Klein and Evens 2005 | Keeler-Wolf and Evens 2006, Keeley |
| Association | | Keeler-Wolf and Evens 2006 | Keeley 1987b, 1991, 1992a, 1993a, Keeley and Keeley 1988, |
| Association | | Evens and Kentner 2006 | Klein et al. 2007, McMurray 1990a, Mills 1983, Minnich 1976, Moreno and Oechel 1991, |
| Association | | Evens et al. 2004 | |
| Association | | Evens et al. 2004 | |
| Association | | NatureServe 2007b | Reid et al. 1999, Schmida and Whittaker 1981, Shiflet 1994, |
| Association | Disturbance | Klein and Evens 2006 | Evens and San 2006 |
| Association | | Evens et al. 2006 | |
| Alliance | | Gordon and White 1994 | Klein and Evens 2005 |
| Association | | Gordon and White 1994 | Gray 1982, Hanes 1977, 1981, 1994, Horton 1960, Keeley 1993a, 2000, Keeley and Keeley 1988 |
| Association | | Evens and San 2005 | Klein and Evens 2005, McMurray 1990a, Montalvo |
| Association | | Keeler-Wolf and Evens 2006 | Keeley 1987b, 1991, 1992a, 1993a, Keeley and Keeley 1988, Keeley and Soderstrom 1986 |
| Alliance | | Gordon and White 1994 | Borchert et al. 2004, |
| Association | | Klein and Evens 2005 | McMurray 1990a, Montalvo and McMillan 2002b, Schmida and Whittaker |
| Association | | Klein and Evens 2005 | McMurray 1990a, Montalvo and McMillan 2002b, Schmida and Whittaker |
| Association | | Keeler-Wolf and Evens 2006 | |
| Association | | Keeler-Wolf and Evens 2006 | |
| Association | | Gordon and White 1994 | Keeler-Wolf and Evens 2006, Hogan and Sawyer 1996, Gray 1983, Hanes 1977, 1981, 1994, Horton 1960, and others, see MCVII |
| Association | | Hogan and Sawyer 1996 | Horton 1960 |
| Alliance | | Gordon and White 1994 | Evens and San 2005, Klein and Evens |
| | | | |
| Association | | Gordon and White 1994 | |
| Association | | Gordon and White 1994 | Klein and Evens 2005, Rivas-Martinez 1997, Vogl and Schorr 1972 |
| Association | | Evens and San 2005 | |
| Association | | Gordon and White 1994 | Hanes 1977, 1981, 1994, Hogan et al. 1996, Horton |
| Association | | Evens and San 2005 | |
| Association | | Evens and San 2005 | |
| Association | | Evens and San 2005 | |
| Association | | Klein and Evens 2005 | |
| Association | | Evens and San 2005 | |
| Association | | Evens and San 2005 | Klein and Evens 2005, Rivas-Martinez 1997, Vogl and Schorr |
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| Alliance | | Keeler-Wolf and Evens 2006 | Keeler-Wolf et al. 2005 |
| Association | | Gordon and White 1994 | Halvorson and Clark 1989, Hanes 1977, 1981, 1994, |
| Association | | Evens and San 2005 | Gordon and White 1994 |
| Association | | Gordon and White 1994 | Halvorson and Clark 1989, Hanes 1977, 1981, 1994, |
| Association | | Gordon and White 1994 | |
| Association | | Gordon and White 1994 | Halvorson and Clark 1989, Hanes 1977, 1981, 1994, Hanes and Jones 1967, Hellmers et al. 1955, Howard |
| Association | | Gordon and White 1994 | Halvorson and Clark 1989, Hanes 1977, 1981, 1994, Hanes and Jones 1967, Hellmers et al. 1955, Howard |
| Association | | Evens and San 2004 | Klein and Evens 2005, McMurray 1990a, Miller 1982, Mills |
| Association | | Gordon and White 1994 | Halvorson and Clark 1989, Hanes 1977, 1981, 1994, Hanes and Jones 1967, Hellmers et al. 1955, Howard |
| Association | | Gordon and White 1994 | Evens and San 2004, Halvorson and Clark 1989, Hanes 1977, 1981, 1994, |
| Association | | Klein and Evens 2005 | |
| Association | | Borchert et al. 2004 | Evens et al. 2006 |
| Association | | Borchert et al. 2004 | Evens et al. 2006 |
| Association | | Evens and San 2004 | |
| Association | | Keeler-Wolf et al. 1998b | |
| Association | | Evens et al. 2006 | |
| Association | | Evens and San 2004 | |
| Provisional Alliance | | Markos et al. 1998 | Van Dyke et al. 2001, CDFG 2004 |
| Provisional Alliance | | Bowerman 1944 | Ertter and Bowerman 2002 |
| Alliance | | Keeler-Wolf et al. 2003b | Klein et al. 2007, Amaranthus et al. 1990, Ball et al. 1983, Barry 1989a, 1989b, Buchanan et al. 1966 |
| Association | | Keeler-Wolf et al. 2003b | Klein et al. 2007, Keeley and Keeley 1988 |

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| Association | Lee 2004 | Minore et al 1988, Pase 1982a, Patric and Hanes 1964, Paysen et al. 1980, Thorne 1976 |
| Association | Klein et al. 2007 | |
| Provisional Association | Klein et al. 2007 | |
| Association | CNPS 2005 | Thorne et al 2004, Detling 1961, Gottlieb 1968, Green 1977, Hanes 1977, 1981, |
| Association | Lee 2004 | Minore et al 1988, Pase 1982a, Patric and Hanes 1964, Paysen et al. 1980, Thorne 1976 |
| Association | Klein et al. 2007 | |
| Alliance | Gordon and White 1994 | Barry 1989a, 1989b, Borchert et al. 2004, Hanes 1971, 1977, 1981, Keeley 1987, 1992a, Montygierd-Loba and Keeley 1987, Keeley and Keeley |
| | | |
| Association | Gordon and White 1994 | Borchert et al. 2004, Evens and San 2005, Keeler-Wolf and Evens 2006 |
| Association | Gordon and White 1994 | Hanes 1971, 1977, 1981, 1994, Horton 1960, Horton and |
| Association | Klein and Evens 2005 | McMurray 1990a, Mills 1983, Minnich |
| Association | Gordon and White 1994 | Keeler-Wolf and Evens 2006, Klein and |
| Association | Keeler-Wolf and Evens 2006 | Keeley 1987c, 1991, 1992a, 1993, Keeley and Keeley |
| Association | Klein and Evens 2005 | McMurray 1990a, Mills 1983, Minnich 1976, Montygierd-Loba and Keeley 1987, Moreno and Oechel 1991, 1992, 1993, Pase 1982a, Patric and |
| Association | Klein and Evens 2005 | McMurray 1990a, Mills 1983, Minnich 1976, Montygierd-Loba and Keeley 1987, Moreno and Oechel 1991, 1992, 1993, Pase 1982a, Patric and |
| Association | Keeler-Wolf and Evens 2006 | Keeley 1987c, 1991, 1992a, 1993, Keeley and Keeley |
| Alliance | Keeler-Wolf et al. 2003a | Barry 1989a, 1989b, Gordon and White 1994, Borchert et al. 2004 |
| | | |
| Association | Stuart et al. 1996 | Borchert et al. 2004, Evens et al. 2004, NatureServe 2007b, Noble and Slatyer 1977, |
| Association | Keeley and Keeley 1988 | Gordon and White 1994, Keeler-Wolf and Evens 2006 |
| Association | Keeler-Wolf and Evens 2006 | Keeley and Keeley 1988 |
| Provisional Association | Klein et al. 2007 | |
| Association | Stuart et al. 1996 | |
| Association | Stuart et al. 1992 | |
| Association | Taylor and Teare 1979a | Thorne 1976 |
| Association | Stuart et al. 1996 | |
| Association | Evens, San and Taylor 2004 | Klein et al. 2007 |
| Alliance | Barry 1989a | Barry 1989b |
| | | |
| Association | Borchert et al. 1993b | Borchert et al. 2004, Cheatham and Haller 1975, Keeler-Wolf and Evens 2006, Keeley 1975, 1987a, 2007, Keeley |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | Keeler-Wolf and Evens 2006 | Keeley 1975, 1987a, 2007, Keeley and Keeley 1988, Montygierd-Loyba and Keeley |
| Association | Borchert et al. 1993b | Keeler-Wolf and Evens 2006, Keeley 1975, 1987a, 2007, Keeley and Keeley 1988, Montygierd-Loyba and Keeley |
| Association | Keeler-Wolf and Evens 2006 | Keeley 1975, 1987a, 2007, Keeley and Keeley 1988, Montygierd-Loyba and Keeley |
| Association | Cheatham and Haller 1975 | Borchert et al. 2004 |
| Association | Borchert et al. 2004 | Cheatham and Haller 1975 |
| Association | Keeler-Wolf and Evens 2006 | |
| Alliance | | |
| Association | Evens et al. 2004 | Howard 1992e, Klein et al. 2007 |
| Provisional Alliance | Klein and Evens 2005 | |
| Alliance | Keeler-Wolf et al. 2003a | |
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| Provisional Alliance | Evens and Kentner 2006 | Howell 1970, Johnson 1995 |
| Provisional Association | Evens and Kentner 2006 | |
| Association | Keeler-Wolf et al. 2003a | Keeley and Keeley 1988, Pase 1982a, Sawyer and Evens 2007 |
| Association | Sawyer and Evens 2007 | |
| Association | Bainbridge 2007 | Davis and Hickson 1988, Griffin 1978, Sawyer and Evens 2007 |
| Alliance | Borchert et al. 2004 | |
| Association | Borchert et al. 2004 | |
| Provisional Alliance | Griffin 1978 | Van Dyke et al. 2001 |
| Alliance | Odion and Tyler 2002 | |
| Alliance | Gankin and Major 1964 | Holzman and Meyer 2004, Singer 1978, Swiecki and Bernhardt 2003, Swiecki et al. 2005 |
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| Association | Wood and Parker 1998 | Woodward 2003 |
| Alliance | Keeler-Wolf 2003a | Evens and Kentner 2006 |
| Alliance | Van Dyke et al. 2001 | Griffin 1978 |
| Association | Van Dyke et al. 2001 | Griffin 1978 |
| Provisional Alliance | Griffin 1978 | Van Dyke et al. 2001 |
| Association | Keeler-Wolf et al. 2003a | Evens and Kentner 2006 |
| Association | Evens and Kentner 2006 | |
| Provisional Alliance | Davis et al. 1988 | Hickson 1988, Meyer 2004, Odion et al. 2002, Tyler et al. 2000 |
| Provisional Alliance | Thomas 1961 | McGraw 2004a |
| Provisional Alliance | Best et al. 1996 | Thorne et al. 2004 |
| Alliance | Borchert et al. 2004 | |
| Association | Borchert et al. 2004 | |
| Provisional Alliance | Evens and San 2005 | Keeley and Davis 2007, Taylor 2004 |
| Alliance | Brown et al. 1980 | Keeler-Wolf and Evens 2006 |
| Association | Keeler-Wolf and Evens 2006 | Keeley and Keeley 1988 |

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| Association | Keeler-Wolf and Evens 2006 | Keeley and Keeley 1988 |
| Association | Evens and San 2005 | Howard 1992f, Keeler-Wolf and Evens 2006, Keeley and Keeley 1988, Klein and Evens 2005, Minnich 1982, Pratt et al. 2005, Saruwatari and |
| Association | Klein and Evens 2005 | Minnich 1982, Pratt et al. 2005, Saruwatari and Davis 1989, Westman 1981a, 1981b |
| Association | Evens and San 2005 | Howard 1992f, Keeler-Wolf and Evens 2006, Keeley and Keeley 1988, Klein and Evens 2005, Minnich 1982, Pratt et al. 2005, Saruwatari and |
| Association | Keeler-Wolf and Evens 2006 | Keeley and Keeley 1988 |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | Klein and Evens 2005 | Minnich 1982, Pratt et al. 2005, Saruwatari and Davis 1989, Westman 1981a, 1981b |
| Alliance | Landis 1997 | Carroll et al. 1987, Coblentz 1980, Dunkle 1950, Junak |
| Association | Landis 1997 | Laughrin et al. 1994, Minnich 1980a, Muller 1967, |
| Alliance | Keelrr-Wolf and Evens 2006 | |
| Association | Lloret and Zedler 1991 | Keeler-Wolf and Evens 2006, Taylor 2004 |
| Association | Evens and San 2005 | |
| Association | Keeler-Wolf and Evens 2006 | Keeler-Wolf and Evens 2006 |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | Evens and San 2005 | |
| Alliance | Borchert et al. 2004 | Keeler-Wolf and Evens 2006 |
| Association | Keeler-Wolf and Evens 2006 | Borchert et al. 2004, Keeler-Wolf and Evens 2006, Keeley 1992b, Malanson and |
| Association | Keeler-Wolf and Evens 2006 | Keeley 1992b, Malanson and O'Leary 1985, Paysen et al. 1980, Shiflet 1994, |
| Alliance | Keeler-Wolf et al. 1998b | |
| Association | Gordon and White 1994 | Keeler-Wolf and Evens 2006 |
| Association | Evens and San 2004 | |
| Association | Keeler-Wolf et al. 1998b | |
| Association | Klein et al. 2007 | Keeley and Keeley 1988, Keeley 1992a, 1992b |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Evens et al. 2006 | |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | Gordon and White 1994 | Evens et al. 2006, Klein and Evens 2005, O'Leary 1990 |
| Association | Klein and Evens 2005 | O'Leary 1990 |
| Association | Gordon and White 1994 | |
| Association | Evens and San 2006 | Evens, Keeler-Wolf, Klein and Hickson 2005 |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | Cheatham and Haller 1975 | Borchert et al. 2004 |
| Association | Klein and Evens 2005 | O'Leary 1990 |
| Association | Gordon and White 1994 | Keeler-Wolf et al. 2003b, Keeler-Wolf and Evens 2006, Klein et al. 2007, Keeley and Keeley 1988, Keeley 1992a, 1992b, Klein and Evens 2005, |
| Association | Taylor and Teare 1979b | Uchytil 1991b |
| Association | Evens and San 2005 | |
| Alliance | Klein and Evens 2006 | Anonymous 1974 |
| Association | Klein and Evens 2006 | |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | Klein and Evens 2005 | |
| Association | Klein et al. 2007 | |
| Alliance | Smith 1998 (Draft) | |

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| Association | Borchert et al. 2004 | Conrad 1987, Evens and San 2004, NatureServe 2007b, Patric and Hanes 1964, Paysen et al. 1980, TNC 2007 |
| Association | NatureServe 2007b | Patric and Hanes 1964, Paysen et al. 1980, TNC 2007 |
| Association | NatureServe 2007b | Patric and Hanes 1964, Paysen et al. 1980, TNC 2007 |
| Association | Borchert et al. 2004 | Evens and San 2005, Griffin and Critchfield 1972, Klein and Evens 2005, |
| Provisional Association | Evens and San 2004 | |
| Association | Keeler-Wolf et al. 2003a | Keeley 1991, 1992b, Keeley et al. 1986 |
| Association | Junak et al. 2007 | |
| Alliance | Gordon and White 1994 | |
| Association | Gordon and White 1994 | Borchert et al. 2004, Callaway and Walker 1997, Evens and San 2005, Keeler- |
| Association | Gordon and White 1994 | |
| Association | Gordon and White 1994 | Keeler-Wolf and Evens 2006 |
| Association | Gordon and White 1994 | Hanes 1971, 1977, 1981, Horton 1960 |
| Association | Gordon and White 1994 | Hanes 1971, 1977, 1981, Horton 1960 |
| Association | Gordon and White 1994 | |
| Association | Keeler-Wolf and Evens 2006 | Keeley 1992a, b, 1998, Keeley |
| Association | Gordon and White 1994 | Hanes 1971, 1977, 1981, Horton 1960 |
| Association | Gordon and White 1994 | Keeler-Wolf et al. 1998b |
| Association | Klein andMinnich and Howard 1984 | Klein and Evens 2005, Klein et al. 2007 |
| Association | Gordon and White 1994 | Hanes 1971, 1977, 1981, Horton 1960 |
| Association | Klein and Evens 2005 | Minnich and Howard 1984 |
| Provisional Association | Newton 1987a | Tirmenstein 1989c, S. White 1994b |
| Alliance | Gordon and White 1994 | |
| Association | Borchert et al.2004 | Evens and San 2005, Keeler-Wolf and |
| Association | Gordon and White 1994 | Evens and San 2005 |
| Association | Gordon and White 1994 | Klein and Evens 2005, McMurray 1990a, Pase 1982a, Tirmenstein 1989h, T. White |

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| Association | Gordon and White 1994 | |
| Special Stands | Best et al. 1976 | |
| Alliance | Keeler-Wolf et al. 2003a | Evens and Kentner 2006 |
| Association | Evens and Kentner 2006 | Keeler-Wolf et al. 2003a |
| Association | Evens and Kentner 2006 | |
| Alliance | Evens and Kentner 2006 | Keeler-Wolf et al. 2003a |
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| Association | Klein et al. 2007 | Kruckeberg 1951, 1984, 2006, Nixon 2002 |
| Association | Evens et al. 2006 | |
| Association | Klein et al. 2007 | |
| Association | Keeler-Wolf et al. 2003a | Evens and Kentner 2006, Keeley and Keeley 1988 |
| Provisional Association | Evens and San 2004 | Hanes 1977, 1981, Harrison 1997, 1999 |
| Provisional Association | Evens and San 2004 | Evens et al. 2006, Hanes 1977, 1981, Harrison 1997, 1999 |
| Association | Evens et al. 2006 | |
| Association | Evens, Keeler-Wolf, Klein and Hickson 2005 | |
| Association | Evens, Keeler-Wolf, Klein and Hickson 2005 | |
| Provisional Association | Evens and San 2004 | Hanes 1977, 1981, Harrison 1997, 1999 |
| Provisional Association | Evens and San 2004 | Hanes 1977, 1981, Harrison 1997, 1999 |
| Association | Evens and Kentner 2006 | |
| Association | Evens et al. 2006 | |
| Alliance | Gordon and White 1994 | Borchert et al. 2004, Klein and Evens 2005, Keeler-Wolf and Evens 2006 |
| Association | Gordon and White 1994 | Borchert et al. 2004, Evens et al. 2006, 1994, Gray 1983a, Hanes 1977, 1981, 1994, |
| Association | Keeley and Zedler 1998 | Evens and Kentner 2006, Evens and San 2005, Keeler-Wolf |
| Association | Gordon and White 1994 | Gray 1983a, Hanes 1977, 1981, 1994, Horton 1960, Horton and Kraebel 1955, Howard 1992b, Klein and Evens 2005, McMurray 1990a, Mills |
| Association | Gordon and White 1994 | Gray 1983a, Hanes 1977, 1981, 1994, Horton 1960, Horton and Kraebel 1955, Howard 1992b, Klein and Evens 2005, McMurray 1990a, Mills |
| Association | Gordon and White 1994 | Gray 1983a, Hanes 1977, 1981, 1994, Horton 1960, Horton and Kraebel 1955, Howard 1992b |
| Association | Gordon and White 1994 | Gray 1983a, Hanes 1977, 1981, 1994, Horton 1960, Horton and Kraebel 1955, Howard 1992b, Klein and Evens 2005, McMurray 1990a, Mills |
| Association | Gordon and White 1994 | Gray 1983a, Hanes 1977, 1981, 1994, Horton 1960, Horton and Kraebel 1955, Howard 1992b, |
| Association | Evens and San 2005 | |
| Association | Keeler-Wolf et al. 2001 | |
| Association | Gordon and White 1994 | Gray 1983a, Hanes 1977, 1981, 1994, Horton 1960, Horton and Kraebel 1955, Howard 1992b, Klein and Evens 2005, McMurray 1990a, Mills |
| Association | Gordon and White 1994 | |
| Association | Klein and Evens 2005 | McMurray 1990a, Mills 1983, Moreno and Oechel 1991, 1992, 1993 |
| Association | Keeler-Wolf et al. 1998b | |
| Association | Keeler-Wolf et al. 2003a | Evens and Kentner 2006 |
| Association | Keeler-Wolf et al. 1998b | |
| Alliance | Keeler-Wolf et al. 1998b | |
| Association | Keeler-Wolf 1986a, c | Keeler-Wolf et al. 1998b, Evens and San 2005 |
| Association | Keeler-Wolf et al. 1998b | |
| Alliance | Barry 1989a | Barry 1989b |
| | | |
| Association | Gordon and White 1994 | Evens and San 2005, Evens et al. 2006, Hanes 1977, |
| Association | Keeler-Wolf et al. 2003b | Keeley and Keeley 1998 |
| Alliance | Barry 1989a | Barry 1989b, Borchert et al. 2004, Evens and San 2005, |
| Association | Gordon and White 1994 | Borchert et al. 2004, Keeler-Wolf and Evens 2006 (SAMO), Keeley |
| Association | Keeler-Wolf and Evens 2006 | Klein and Evens 2005, Pase |
| Association | Evens and San 2005 | |
| Association | Keeler-Wolf and Evens 2006 | Keeley and Keeley 1988 |
| Association | Klein and Evens 2005 | Klein and Evens 2005, Pase 1982a, Paysen et al. 1980, Shiflet 1994, Thorne 1976, |
| Association | Klein and Evens 2005 | Pase |
| Association | Keeler-Wolf and Evens 2006 | Keeley and Keeley 1988 |
| Association | Keeler-Wolf and Evens 2006 | Keeley and Keeley 1988 |
| Alliance | Gordon and White 1994 | Griffin 1977, Hanes 1977, 1981, Horton 1960, Keeley and Keeley 1988, Minnich |
| Association | Gordon and White 1994 | Griffin 1977, Hanes 1977, 1981, Horton 1960, Keeley and Keeley 1988, Minnich |
| Alliance | Keeler-Wolf and Evens 2006 | |
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| Association | Borchert et al. 2004 | |
| Association | Gordon and White 1994 | Borchert et al. 2004, Evens and Kentner, Griffin 1977, Hanes 1977, 1981, Horton 1960, Keeler-Wolf |
| Association | Evens and Kentner 2006 | |
| Association | Gordon and White 1994 | Klein and Evens 2005, Kentner 2006, Griffin 1977, Hanes 1977, 1981, Horton 1960, Keeley and Keeley |
| Association | Gordon and White 1994 | Griffin 1977, |
| Association | Klein and Evens 2005 | Minnich 1976, Tirmenstein 1989d, White 1991 |
| Association | Klein and Evens 2005 | Minnich 1976, Tirmenstein 1989d, White 1991 |
| Association | Klein and Evens 2005 | Minnich 1976, Tirmenstein 1989d, White 1991 |
| Association | White and Sawyer 1995 | klein and Evens 2005 |
| Association | Klein and Evens 2005 | Minnich 1976, Tirmenstein 1989d, White 1991 |
| Association | Gordon and White 1994 | Klein and Evens 2005, Griffin 1977, Hanes 1977, 1981, Horton 1960, Minnich 1976, |

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| Alliance | Kirkpatrick and Hutchinson 1977 | |
| Association | Kirkpatrick and Hutchinson 1977 | |
| Association | Keeler-Wolf and Evens 2006 | Keeley and Keeley 1988 |
| Association | Kirkpatrick and Hutchinson 1977 | |
| Association | Evens and San 2004 | |
| Association | Keeler-Wolf and Evens 2006 | Evens and Kentner 2006; Klein and Evens 2005 |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | Gordon and White 1994 | Gray 1982, 1983, Halligan 1973, Jones and |
| Association | Evens et al. 2006 | |
| Association | DeSimone and Burk 1992 | DeSimone and Zedler |
| Association | Evens and San 2005 | Klein and Evens 2005, Malanson and O'Leary 1995, Malanson 1984, Malanson and Westman 1991, Montalvo 2002a, Mooney 1977 |
| Association | Gordon and White 1994 | Gray 1982, 1983, Halligan 1973, Jones and |
| Association | Klein and Evens 2006 | |
| Association | Evens and San 2004 | |
| Association | Keeler-Wolf and Evens 2006 | |
| Alliance | Gordon and White 1994 | |
| Association | Evens and San 2005 | Keeler-Wolf and Evens 2006, Klein and Evens 2005, NatureServe 2007b, |
| Association | Evens et al. 2006 | |
| Association | Evens and San 2005 | Klein and Evens 2005, Malanson |
| Association | Gordon and White 1994 | |
| Association | DeSimone and Burk 1992 | Gordon and White 1994, Kirkpatrick and |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | Keeler-Wolf and Evens 2006 | |
| Alliance | Gordon and White 1994 | Axelrod 1978, Barbour 1994, Barry 1989a, 1989b |
| Association | DeSimone and Burk 1992 | Gordon and White 1994, Jones and Stokes Associates |
| Association | Evens and San 2005 | |
| Alliance | Keeler-Wolf and Evens 2006 | |
| Association | Keeler-Wolf and Evens 2006 | NatureServe 2007, Montalvo and |
| Alliance | Evens and San 2005 | Axelrod 1978, Barbour 1994b, DeSimone and Burk |
| Association | Malanson 1984 | Keeler-Wolf and Evens 2006, Keeley and Keeley 1984, 1988, Malanson and O'Leary 1982, Mooney 1977, O'Leary 1990, Rundel 2007, |
| Association | Kirkpatrick and Hutchinson 1977 | Evens and San 2005, Keeler-Wolf and Evens 2006, Keeley and Keeley 1984, 1988, Klein and Evens 2005 |
| Association | Evens and San 2005 | |
| Association | Keeler-Wolf and Evens 2006 | Keeley and Keeley 1984, 1988 |
| Association | Keeler-Wolf and Evens 2006 | Keeley and Keeley 1984, 1988 |
| Association | Keeler-Wolf and Evens 2006 | Keeley and Keeley 1984, 1988 |
| Alliance | Keeler-Wolf and Evens 2006 | |
| Association | Keeler-Wolf and Evens 2006 | |
| Alliance | Keeler-Wolf and Evens 2006 | |
| Alliance | Cole 1967 | Axelrod 1978, Barbour 1994a, 1994b |
| Association | Gordon and White 1994 | Evens et al. 2006, Keeler-Wolf and Evens 2006, Klein and Evens |
| Association | Gordon and White 1994 | |
| Association | Keeler-Wolf et al. 1998b | |
| Association | Gordon and White 1994 | |
| Association | Klein and Evens 2005 | Kummerow et al. 1977, Malanson 1984, Minnich |
| Association | Klein and Evens 2006 | Kummerow et al. 1977, Malanson 1984, Minnich |
| Association | Klein and Evens 2005 | Kummerow et al. 1977, Malanson 1984, Minnich |
| Association | Klein and Evens 2006 | Kummerow et al. 1977, Malanson 1984, Minnich and Dezzani 1998, Miriti et al. 1998, Montalvo 2002b, Montalvo et al. 2002, Mooney 1977, Moran |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | Evens and San 2005 | Evens et al. 2006, NatureServe 2007b, O'Leary 1990, Pase and Brown 1982, Paysen et al. 1980, Vasek and Barbour |
| Association | Keeler-Wolf and Thomas 2000 | Keeley 1998, Keeley and Keeley 1988 |
| Association | Kirkpatrick and Hutchinson 1977 | DeSimone and Burk 1992, Gordon and White 1994 |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | Kirkpatrick and Hutchinson 1977 | |
| Association | Klein and Evens 2005 | Kummerow et al. 1977, Malanson 1984, Minnich |
| Association | Evens et al. 2006 | |
| Association | Evens et al. 2006 | |
| Association | Evens et al. 2006 | |
| Alliance | Gordon and White 1994 | Axelrod 1978, Barbour 1994, Barry 1989a, 1989b, Boyd et al. 1995, DeSimone and Burk 1992 |
| Association | Gordon and White 1994 | Evens and San 2005, Jones and Stokes Associates 1993, Keeler-Wolf and Evens 2006, Keeley 1998, Keeley and Keeley 1988, Kirkpatrick and |
| Provisional Alliance | Johnson and Rodriguez 2001 | Junak et al. 2007, Philbrick 1972, Thorne 1967 |
| Alliance | Keeler-Wolf et al. 1998b | |
| Association | Evens et al. 2006 | |
| Association | Evens et al. 2006 | |
| Association | Evens and San 2005 | Moran 2004a, 2004b, Keeler-Wolf et al. 1998b |
| Alliance | Klein and Evens 2006 | Evens and San 2005 |
| Association | Klein and Evens 2005 | Minnich and Bahre 1995, Peinado et al. 1995, Weaver 1998 |

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| Association | Cione et al. 2002 | Evens and San 2005, Gordon and White 1994, Klein and Evens 2005, Minnich |
| Association | Klein and Evens 2005 | Minnich and Bahre 1995, Peinado et al. 1995, Weaver 1998. |
| Association | Cione et al. 2002 | Evens and San 2005, Klein and Evens 2005, Minnich and Bahre 1995, Peinado et al. 1995, Weaver 1998 |
| Alliance | Evens and San 2005 | Klein and Evens 2005 |
| Association | DeSimone and Burk 1992 | Evens and San 2005 |
| Association | Klein and Evens 2005 | |
| Association | Evens and San 2005 | |
| Alliance | Borchert et al. 2004 | |
| Association | Keeler-Wolf and Evens 2006 | Borchert et al. 2004, Jones and Stokes |
| Association | Kirkpatrick and Hutchinson 1977 | Borchert et al. 2004, Jones and Stokes 1993, Keeler-Wolf and Evens 2006, Keeley 1988, |
| Association | Keeler-Wolf and Evens 2006 | Keeley 1988, Keeley and Keeley 1988 |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | Kirkpatrick and Hutchinson 1977 | |
| Alliance | Borchert et al. 2004 | Evens and San 2005 |
| Association | Malanson 1984 | Evens and San 2004, Evens and San 2005, Gill and Hanlon 1998, Haidinger and Keeley 1993, Jones |
| Association | Malanson 1984 | |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | Kirkpatrick and Hutchinson 1977 | NatureServe 2007b, O'Leary 1990, 1995, Pase and Brown 1982, |
| Association | Evens et al. 2006 | |
| Association | Klein and Evens 2005 | |
| Association | Kirkpatrick and Hutchinson 1977 | Keeler-Wolf and Evens 2006, Keeley and Fotheringham 1998, Keeley and Keeley |
| Association | Mooney 1977 | Montalvo and McMillan 2002b |
| Association | Keeler-Wolf and Evens 2006 | Keeley and Fotheringham 1998, Keeley and Keeley |
| Alliance | Evens and San 2005 | Berg 1966, Bullock 1989, Keeler-Wolf and Evens 2006 |
| Association | Evens and San 2005 | Keeler-Wolf and Evens 2006 |
| | | |
| Provisional Alliance | Twisselmann 1967 | Keeler-Wolf 2007b |
| Provisional Alliance | Klein and Evens 2005. | |
| Provisional Alliance | Evens et al. 2006 | Bonneau 2000, James et al. 1988, McDaniel et al. 1997. |
| Provisional Association | Evens et al. 2006 | |
| Alliance | Keeler-Wolf and Evens 2006 | |
| Association | Keeler-Wolf and Evens 2006 | Keeley and Keeley 1984 |
| Association | Keeler-Wolf and Evens 2006 | Keeley and Keeley 1984 |
| Alliance | Evens and San 2005 | |
| Association | Junak et al. 2007 | |
| Association | Johnson and Rodriguez 2001 | Junak et al. 2007 |
| Association | Johnson and Rodriguez 2001 | Junak et al. 2007 |
| Alliance | Evens and San 2005 | |
| Association | Keeler-Wolf and Evens 2006 | Montalvo 2003, NatureServe 2007b, Stillwater |
| Alliance | Keeler-Wolf et al. 2003b | Evens et al. 2006 |
| Association | Keeler-Wolf et al. 2003b | |
| Association | NatureServe 2007b | |
| Association | Junak et al. 2007 | |
| Alliance | Keeler-Wolf and Evens 2006 | Bond and Midgley 2001 |
| Association | Keeler-Wolf and Evens 2006 | Lloret et al. 2005 |
| Association | Keeler-Wolf and Evens 2006 | Lloret et al. 2005 |
| Association | Keeler-Wolf and Evens 2006 | Lloret et al. 2005 |
| Association | Keeler-Wolf and Evens 2006 | Lloret et al. 2005 |
| Association | Keeler-Wolf and Evens 2006 | Lloret et al. 2005 |
| Association | Keeler-Wolf and Evens 2006 | Lloret et al. 2005 |
| Semi-natural Stands | Alvarez 2000 | DiTomaso and Healy 2007 |
| Semi-natural Stands | Hoshovsky 2000b | Evens and Kentner 2006, Hoshovsky 2005b |
| Semi-natural Stands | Nilsen 2000 | Keeler-Wolf and Evens 2006, Zouhar 2005a, 2005b, 2005d |
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| Provisional Alliance | | |
| Alliance | Klein and Evens 2005 | |
| Association | Klein and Evens 2005 | |
| Association | NatureServe 2007b | Pavlik 1995, Pavlik et al. 1993, Schiffman |
| Alliance | Groen 2005 | |
| Association | NatureServe 2007b | Shultz 2006 |
| Association | NatureServe 2007b | Shultz 2006 |
| Alliance | Cook 1965 | Bartolome et al. 2007, Clark and Charest 1992, Leger 20o4, NatureServe 2007 |
| | | |
| Association | Robinson et al. 1995 | NatureServe 2007b, Schiffman 2007, Wills 2006 |
| Alliance | Evens et al. 2004 | Klein et al. 2007 |
| Provisional Association | Taylor et al. 1992 | Weiss 1999 |
| Provisional Association | Klein and Evens 2006 | |
| Association | Junak et al. 2007 | |
| Association | McCarten 1991 | Evens and San 2004, Klein and Evens 2006, Rodriguez-Rojo et al. 2001a,b, Weiss 1999 |

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| Association | Barbour et al. 2007 | Grewell et al. 2007 |
| Association | Evens and San 2004 | McCarten 1991 |
| Association | Klein et al. 2007 | |
| Association | Klein et al. 2007 | |
| Association | Klein et al. 2007 | |
| Association | Klein et al. 2007 | |
| Association | Evens and San 2004 | Klein et al. 2007 |
| Association | Hobbs and Mooney 1991 | Evens and San 2004, Evens et al. 2006, Howard 2006 |
| Association | Evens and San 2004 | Evens and Kentner 2006, Klein et al. 2007 |
| Association | Klein et al. 2007 | |
| Association | Evens, San and Taylor 2004 | Klein et al. 2007 |
| Association | Evens and San 2004 | Klein et al. 2007 |
| Provisional Alliance | S. Smith 1998 | Buck 2007, Klein et al. 2007 |
| Alliance | Bartolome et al. 2007a | |
| Association | cf. Evens et al. 2004 | Klein et al. 2007, Schiffman 2007, York 1997 |
| Alliance | Keeler-Wolf and Evens 2006 | Keeley 2002b |
| Association | Keeler-Wolf and Evens 2006 | Keeley 2002b |
| Provisional Alliance | Evens and San 2004 | Fiedler and Leidy 1987, Kruckeberg 1984 |
| Provisional Association | Evens and San 2004 | Fiedler and Leidy 1987, Kruckeberg 1984 |
| Provisional Alliance | Stoddart et al. 1975 | Bartolome et al. 2007a, Dyer 2005b, Hamilton et al. 2002, Heady 1977, Keeley 1993a, Magney 1992, |
| Provisional Alliance | Stoddart et al. 1975 | Heady 1977, Keeley 1993a, 2002b, Keeler-Wolf and Evens 2006, Magney 1992, Paysen et al. 1980 |
| Alliance | Evens and San 2005 | Klein and Evens 2005, Keeler-Wolf and Evens 2006, Klein et al. 2007 |
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| Association | Burcham 1957 | Evens and Kentner 2006, Barry 1972, Bartolome 1981, Bartolome et al. 2007a, |
| Association | Stoddart et al. 1975 | Parker 1990b, Paysen et al. 1980, Steinberg 2002c, Stephenson and Calcarone 1999 |
| Association | Junak et al. 2007 | Keeler-Wolf and Evens 2006 |
| Association | Junak et al. 2007 | |
| Association | Evens and San 2005 | Klein and Evens 2005, Latting 1976, Magney 1992 |
| Association | Klein et al. 2007 | |
| Association | Fiedler and Leidy 1987 | Evens and Kentner 2006 |
| Association | Evens and San 2004 | |
| Association | Evens and San 2004 | |
| Association | Evens and Kentner 2006 | |
| Association | White 1966b | Stuart et al. 1993, Turner and Brown 1982, White 1967 |
| Association | Keeler-Wolf et al. 2003a | Keeley 1990b, 1993a, 1993b |
| Association | Keeler-Wolf and Evens 2006 | |
| Provisional Semi-natural Stands | DiTomaso et al. 2001 | Cal-IPC 2006, CDFA 2003, Davy 2007, Drenovsky and Batten 2007 |
| Provisional Association | Evens and San 2004 | |
| Semi-natural Stands | Keeler-Wolf and Evens 2006 | |
| Semi-natural Stands | Parsons and Stohlgren 1989 | Stromberg et al. 2007, Wills 2006. |
| Semi-natural Stands | Evens and San 2004 | |
| Semi-natural Stands | Klein et al. 2007 | |
| Semi-natural Stands | Keeler-Wolf and Evens 2006 | |
| Semi-natural Stands | DiTomaso and Healy 2007 | |
| Semi-natural Stands | Keeler Wolf and Evens 2006 | Keeler-Wolf and Vaghti 2000, Sanders and Minnich 2000 |
| Semi-natural Stands | Keeler Wolf and Evens 2006, | |
| Semi-natural Stands | Evens and Hartman 2007 | |
| Semi-natural Stands | Keeler-Wolf and Vaghti 2000 | Sanders and Minnich 2000 |
| | | |
| Semi-natural Stands | | |
| Semi-natural Stands | Keeler-Wolf et al. 2003a | Keeley 2006 |
| Semi-natural Stands | Keeler-Wolf and Evens 2006 | Solomeshch and Barbour 2006, Klein et al. 2007 |
| Semi-natural Stands | Keeler-Wolf and Evens 2006 | |
| Semi-natural Stands | Klein and Evens 2006 | |
| Semi-natural Stands | Jimerson et al. 2000 | |
| Semi-natural Stands | Evens and San 2004 | |
| Semi-natural Stands | Jimerson et al. 2000 | |
| Semi-natural Stands | Jimerson et al. 2000 | |
| Semi-natural Stands | Jimerson et al. 2000 | |
| Semi-natural Stands | Klein et al. 2007 | |
| Semi-natural Stands | Evens et al. 2004 | |
| Semi-natural Stands | Evens et al. 2004 | |
| Semi-natural Stands | Klein et al. 2007 | |
| Semi-natural Stands | Jimerson et al. 2000 | |
| Semi-natural Stands | Evens et al. 2004 | Klein et al. 2007 |
| Semi-natural Stands | Jimerson et al. 2000 | |
| Semi-natural Stands | Kopecko and Lathrop 1975 | |
| Semi-natural Stands | Evens et al. 2004 | Klein et al. 2007 |
| Semi-natural Stands | Keeler-Wolf et al. 1998b | |
| Semi-natural Stands | Evens and San 2005 | Klein and Evens 2005 |

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| Semi-natural Stands | Brown and Minnich 1986 | Brooks 2000a, b, Brooks and Pyke 2001 |
| Semi-natural Stands | Keeler-Wolf et al. 1998b | |
| Semi-natural Stands | DiTomaso and Gerlach 2000 | DiTomaso and Healy 2007 |
| Semi-natural Stands | Keeler-Wolf and Evens 2006 | |
| Semi-natural Stands | Klein et al. 2007 | |
| Semi-natural Stands | Evens et al. 2004 | |
| Provisional Semi-natural Stands | CDFA 2006 | Cal-IPC 2006, Keil and Ochsmann 2006, DiTomaso and Healy 2007 |
| Semi-natural Stands | Drewitz 2000 | Bean and Russo 2001, DiTomaso and Healy 2007, |
| Semi-natural Stands | Keeler-Wolf and Vaghti 2000 | Klinger 2000 |
| Semi-natural Stands | Keeler-Wolf and Evens 2006 | |
| Semi-natural Stands | Keeler-Wolf and Vaghti 2000 | NatureServe 2007 |
| Semi-natural Stands | Jimerson et al. 2000 | |
| Semi-natural Stands | Jimerson et al. 2000 | |
| Semi-natural Stands | Jimerson et al. 2000 | |
| Semi-natural Stands | Jimerson et al. 2000 | |
| Semi-natural Stands | Jimerson et al. 2000 | |
| Semi-natural Stands | Jimerson et al. 2000 | |
| Semi-natural Stands | Jimerson et al. 2000 | |
| Semi-natural Stands | Keeler-Wolf and Vaghti 2000 | Pickart 2006, Klein et al. 2007, Carey 1995c |
| Semi-natural Stands | Keeler-Wolf and Evens 2006 | |
| Semi-natural Stands | O'Neil and Egan 2004 | Keeler-Wolf and Evens 2006 |
| Semi-natural Stands | Klein et al. 2007 | |
| Semi-natural Stands | Hickson and Keeler-Wolf 2007 | |
| Semi-natural Stands | Pickart 2006 | Sullivan 1992 |
| Semi-natural Stands | Evens and San 2004 | |
| Semi-natural Stands | Evens et al. 2004 | |
| Semi-natural Stands | Keeler-Wolf and Vaghti 2000 | |
| Semi-natural Stands | O'Neil and Egan 2004 | |
| Semi-natural Stands | Pickart 2006 | cf. Keeler-Wolf and Vaghti 2000 |
| Provisional Semi-natural Stands | Klein et al. 2007 | |
| Semi-natural Stands | Keeler-Wolf and Evens 2006 | Benton 1998 , DiTomaso and Healy 2007 |
| Stand Type | Lovich 2000 | Keeler-Wolf and Evens 2006 |
| Provisional Alliance | Padgett and Manning 1988 | S. Smith 1998, Manning 1998 |
| Provisional Alliance | Manning and Padgett 1995 | Stevens 2000b, Weixelman et al. 1999 |
| Provisional Alliance | Ratliff 1985 | S. Smith 1998 |
| Provisional Alliance | Franklin and Dyrness 1988 | Franklin and Dyrness 1988, Sawyer and Keeler-Wolf 2007 |
| Alliance | Keeler-Wolf et al. 2003b | |
| Association | Manning and Padgett 1995 | S. Smith 1998, Weixelman et al. 1999 |
| Association | Potter 2005 | |
| Association | Nachlinger 1985 | |
| Association | Taylor 1984 | Keeler-Wolf et al. 2003b |
| Provisional Alliance | Benedict 1983 | Cheng 2004 |
| Provisional Association | Benedict 1983 | |
| Provisional Alliance | Smith 1998 | Cheng 2004 |
| Alliance | Potter 2005 | |
| Association | S. Smith 1998 | |
| Association | Potter 2005 | |
| Association | Cooper and Wolf 2006 | |
| Provisional Alliance | Smith 1998 | Keeler-Wolf and Moore 2001, Potter 2003 |
| Association | Cooper and Wolf 2006 | cf. S. Smith 1998 |
| Provisional Alliance | Murray 2000 | Christy 2004, Cooper and Wolf 2006 |
| Provisional Alliance | Manning and Padgett 1995 | S. Smith 1998, Johnston 1987 |
| Alliance | Mason 1957 | |
| Association | Beguin and Major 1975 | Burke 1987, Cooper and Wolf 2006, Keeler-Wolf et al. 2003b, Manning and Padgett 1995, Ogle2005b, Paysen et al. 1980, Potter 2005, Ratliff |
| Association | Halpern 1986 | Hermann 1970 |
| Alliance | S. Smith 1998 | Potter 2005 |
| Association | Nachlinger 1985 | Cooper and Wolf 2006, Manning and Padgett 1995, Potter 2005, S. Smith |
| Association | Beguin and Major 1975 | Burke 1987, Cooper and Wolf 2006 |
| Association | Burke 1987 | |
| Association | Cooper and Wolf 2006 | |
| Association | Cooper and Wolf 2006 | |
| Provisional Alliance | Jackson and Bliss 1982 | Nachlinger 1985, Cheng 2004 |
| Alliance | Potter 2005 | |
| Association | Major and Taylor 1977 | |
| Association | Major and Taylor 1977 | |
| Association | Taylor 1984 | |
| Association | Potter 2005 | |
| Association | Taylor 1984 | |
| Association | Major and Taylor 1977 | |
| Alliance | S. Smith 1998 | Potter 2005, Keeler-Wolf et al. 2003a |

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| Association | Manning and Padgett 1995 | S. Smith 1998 |
| Association | Heady et al. 1977 | |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Benedict 1983 | Ford and Hayes 2007 |
| Association | Allen-Diaz 1991 | Manning and Padgett 1995 |
| Association | Keeler-Wolf et al. 2003a | |
| Association | Keeler-Wolf et al. 2003a | |
| Association | Hickson and Keeler-Wolf 2007 | |
| Association | Potter 2005 | |
| Association | Benedict 1983 | Ford and Hayes 2007 |
| Association | Benedict 1983 | Ford and Hayes 2007 |
| Association | Taylor 1984 | Walsh 1995a |
| Association | Ratliff 1982 | Ratliff 1985, Sawyer and Keeler-Wolf 2007 |
| Association | Pickart 2006 | |
| Association | S. Smith 1998 | Potter 2005, Cooper and Wolf 2006 |
| Association | S. Smith 1998 | Potter 2005, Cooper and Wolf 2006 |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Beguin and Major 1975 | |
| Provisional Alliance | Hartnett and Bazzaz 1983 | Coladanato 1993, Goldberg 1987, 1988, Hartnett and Bazzaz 1985a–c, Keeler-Wolf et al. 2003b, Potter 2005 |
| Provisional Alliance | Ratliff 1982 | Ratliff 1985, S. Smith 1998, Weixelman et al. 1999 |
| Provisional Alliance | Evens and San 2005 | |
| Alliance | Keeler-Wolf et al. 2003b | |
| Provisional Association | Keeler-Wolf et al. 2003b | |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Keeler-Wolf et al. 2003b | |
| Provisional Alliance | Evens and San 2004 | Evens et al. 2005 |
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| Alliance | Evens and Kentner 2006 | |
| Association | Paysen et al. 1980 | Jimerson 1993, Kruckeberg 1984, Sawyer 2006, Tisdale 1994d, Zouhar 2000b |
| Association | Evens and Kentner 2006 | |
| Association | Evens and Kentner 2006 | |
| Alliance | Heady 1977 | Anderson 2002a, Barry 1989a, b, CNDDB 2008, Paysen et al. 1980, 1982, Young et al. 2007 |
| Alliance | Hickson et al. 2007 | Heady 1977, Howard 1997b, Manning and Padgett 1995, Weixelman et al. |
| Association | Howard 1997b | Hickson et al. 2007 |
| Association | Weixelman et al. 1999 | |
| Association | Manning and Padgett 1995 | |
| Semi-natural Stands | Pickart 2006 | |
| Semi-natural Stands | S. Smith 1998 | |
| Association | Pickart 2006 | |
| Association | Pickart 2006 | |
| Stand Type | Pitcher and Russo 1988a | Pitcher and Russo 1988b, Pickart 2006 |
| Stand Type | Keeler-Wolf et al. 2003a | |
| Semi-natural Stands | Pickart 2006 | Keeler-Wolf et al. 2003, Ford and Hayes 2007 |
| Semi-natural Stands | Keeler-Wolf and Vaghti 2000 | Evens and San 2004, Jimerson et al. 2000, Harrington and Lanini 2000 |
| Stand Type | Keeler-Wolf and Vaghti 2000 | |
| Provisional Association | Harrington and Lanini 2000 | Evens and San 2004 |
| Stand Type | Jimerson, et al. 2000 | |
| Semi-natural Stands | S. Smith 1998 | Potter 2005, NatureServe 2007a |
| Stand Type | | |
| Stand Type | Allen-Diaz 1991 | DiTomaso and Healy 2007 |
| Stand Type | Stuart et al. 1993 | Uchytil 1993 |
| Stand Type | Allen-Diaz 1991 | DiTomaso and Healy 2007, Potter 2005 |
| Stand Type | Weixelman et al. 1999 | Wennerberg 2004a |
| Stand Type | Weixelman et al. 1999 | Wennerberg 2004a |
| Semi-natural Stands | Beatley 1966 | Carpenter and Murray 2005, DiTomaso and Healy 2007 |
| Semi-natural Stands | Stuart et al. 1993 | Evens and San 2005 |
| Semi-natural Stands | White 1994a | Young and Evans 1995, Zouhar 2003, Keeler-Wolf et al. 1998, Mack 1981, 1986 |
| Alliance | Keeler-Wolf and Moore 2001 | Potter 2003 |
| Association | Keeler-Wolf and Moore 2001 | |
| Association | Cooper and Wolf 2006 | |
| Association | Benedict 1983 | |
| Association | Halpern 1986 | |
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| Alliance | Stillman 1980 | Imper 1988a; Keeler-Wolf and Keeler-Wolf 1974, 1981; Cheng 2004, Potter 2005 |
| Association | Potter 1998 | |
| Association | Imper 1988a, see Cheng 2004 | |
| Association | Stillman 1980 | |
| Association | Potter 2005 | |

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| Alliance | Chappell et al. 1997 | Cheng 2004, Keeler-Wolf et al. 2003b, Tirmenstein 1999d |
| Provisional Association | Keeler-Wolf et al. 2003b | |
| Provisional Association | Keeler-Wolf et al. 2003b | |
| Alliance | Evens and Kentner 2006 | S. Smith 1998, Klein et al. 2007 |
| Association | Manning and Padgett 1995 | S. Smith 1998 |
| Association | Potter 2005 | Patterson and Cooper 2007 |
| Association | Evens et al. 2004 | Ford and Hayes 2007 |
| Association | Stillman 1980 | Sawyer and Keeler-Wolf 2007 |
| Provisional Alliance | Major and Taylor 1977 | Benedict 1983, Ratliff 1985, S. Smith 1998 |
| Provisional Alliance | Benedict 1983 | Major and Taylor 1977, Ratliff 1985, Sawyer and Keeler-Wolf 2007. |
| Provisional Association | Major and Taylor 1977 | |
| Alliance | Keeler-Wolf et al. 2003b | Potter 2005 |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Potter 2005 | Sawyer and Keeler-Wolf 2007 |
| Association | Taylor 1984 | |
| Alliance | Barry 1989a | Allen et al. 1991, Archer 2000, Barry 1989b |
| Association | Sawyer and Thornburgh 1997 | |
| Association | Taylor and Teare 1979a | |
| Association | Keeler-Wolf et al. 2003a | Morgan and Neuenschwander 1988 |
| Association | Burke 1982 | |
| Association | Burke 1982 | |
| Association | Keeler-Wolf et al.2003a | Morgan and Neuenschwander 1988 |
| Alliance | Keeler-Wolf et al. 2003b | |
| Association | Taylor 1984 | Keeler-Wolf et al. 2003b, Sawyer and Keeler-Wolf |
| Alliance | Keeler-Wolf et al. 2003b | |
| Association | Keeler-Wolf et al. 2003b | Sawyer and Keeler-Wolf 2007, Taylor 1984 |
| Association | Keeler-Wolf et al. 2003b | Sawyer and Ikeeler-Wolf 2007 |
| Association | Taylor 1984 | Keeler-Wolf et al. 2003b, Sawyer and Keeler-Wolf |
| Alliance | Cheng 2004 | Keeler-Wolf et al. 2003b |
| Association | Pemble 1970 | |
| Association | Taylor 1984 | Keeler-Wolf et al. 2003b |
| Association | Potter 2005 | |
| Alliance | Adams 1962 | Barry 1989a, 1989b, Cronemiller 1959, Keeler-Wolf et al. 2003a, Klein et al. |
| | | |
| Association | Gordon and White 1994 | Griffin 1982, Howard |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Klein et al. 2007 | Paysen et al. 1980, Shiflet 1994 |
| Association | Stuart et al. 1993 | |
| Association | Stuart et al. 1993 | |
| Provisional Alliance | Keeler-Wolf et al. 2003a | Esser 1995a |
| Alliance | Keeler-Wolf et al. 2003b | Lee 2004 |
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| Provisional Association | Klein et al. 2007 | |
| Association | Jimmerson 1993 | |
| Association | Sawyer 1981a | |
| Association | Nixon and Muller 1997 | Lee 2004 |
| Alliance | Keeler-Wolf and Moore 2001 | |
| Association | Manning and Padgett 1995 | |
| Association | S. Smith 1998 | |
| Association | McArthur 1994 | Manning and Padgett 1995, S. Smith 1998 |
| Association | Kovalchik 1987 | Keeler-Wolf et al. 2003b, Weixelman et al. 1999 |
| Association | Manning and Padgett 1995 | McArthur 1994, Weixelman et al. 1999 |
| Association | Weixelman et al. 1999 | Young et al. 1977, 2007 |
| Association | S. Smith 1998 | |
| Provisional Alliance | Keeler-Wolf et al. 1998 | Nesom 2003, Evens and San 2005 |
| Provisional Alliance | Evens and San 2005 | Johnson 2000c, NatureServe 2007a,  Welch 2002 |
| Provisional Alliance | Marshall 1975b | Klein and Evens 2006 |
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| Alliance | Hektner and Foin 1977 | |
| Association | Hektner and Foin 1977 | |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Keeler-Wolf et al. 2003b | |
| Provisional Alliance | S. Smith 1998 | Keeler-Wolf et al. 2003a |
| Association | S. Smith 1998 | |
| Association | Keeler-Wolf et al. 2003b | Ford and Hayes 2007, Hektner et al. 1983, Heady et al. 1977, Johannessen |
| Association | Grenier 1989 | |
| Association | Stuart et al. 1992 | |
| Association | Helms and Ratliff 1987 | |
| Alliance | Keeler-Wolf et al. 2003a | |
| Association | Walsh 1995b | Keeler-Wolf et al. 2003a, Michaels 2004 |

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| Association | Keeler-Wolf et al. 2003a | Zimmerman 1991b |
| Alliance | Keeler-Wolf et al. 2003a | Anderson 2005, Haeussler and Coates 1986 |
| Alliance | | |
| Association | Belsher 1999 | |
| Association | Belsher 1999 | |
| Association | Belsher 1999 | |
| Association | Belsher 1999 | Keeler-Wolf et al. 2003a, Sawyer and Keeler-Wolf 1995 |
| Association | Heady et al. 1977 | Duebendorfer 1989 |
| Alliance | Keeler-Wolf et al. 2001 | |
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| Association | Keeler-Wolf and Evens 2006 | |
| Association | Keeler-Wolf et al. 2003a | |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | Potter 2005 | |
| Association | Evens et al. 2004 | |
| Association | Evens et al. 2004 | |
| Association | Klein et al. 2007 | |
| Association | Evens and San 2005 | Howard 1994 |
| Semi-natural Stands | Keeler-Wolf and Vaghti 2000 | |
| Stand Type | Keeler-Wolf and Vaghti 2000 | Hickson and Keeler-Wolf 2007, Hoshovsky 2000, Klein et al. 2007 |
| Stand Type | Potter 2005 | Tirmenstein 1989e. |
| | | |
| Alliance | Gordon and White 1994 | Borchert et al. 2004, Keeler-Wolf and Evens 2006 |
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| Association | Gordon and White 1994 | Borchert et al. 2004, Keeler-Wolf and Evens 2006, Hanes 1965, 1977, 1981, Howard 1993, Keeley and Keeley 1988, |
| Association | Klein and Evens 2005 | McMurray 1990a, Marion 1943, Vogl 1976 |
| Association | Gordon and White 1994 | Hanes 1965, 1977, 1981, Howard 1993, Klein and Evens 2005, McMurray 1990a, Marion |
| Association | Keeler-Wolf and Evens 2006 | Keeley and Keeley 1988 |
| Association | Gordon and White 1994 | Klein and Evens 2005, McMurray 1990a, Marion |
| Association | Gordon and White 1994 | Hanes 1965, 1977, 1981, Howard 1993 |
| Association | Klein and Evens 2005 | McMurray 1990a, Marion |
| Association | Klein and Evens 2005 | |
| Association | Klein and Evens 2005 | |
| Association | Klein and Evens 2005 | Borchert et al. 2004 |
| Association | Gordon and White 1994 | Hanes 1965, 1977, 1981, Howard 1993 |
| Association | Klein and Evens 2005 | McMurray 1990a, Marion 1943, Vogl 1976 |
| Association | Klein and Evens 2005 | McMurray 1990a, Marion 1943, Vogl 1976 |
| Alliance | Gordon and White 1994 | Keeler-Wolf et al. 1998b, Klein and Evens 2005 |
| Association | Klein and Evens 2005 | Nixon 2002, Nixon and Muller 1997, Nixon and Steele 1981 |
| Association | Klein and Evens 2005 | Nixon 2002, Nixon and Muller 1997, Nixon and Steele 1981 |
| Association | Keeler-Wolf et al. 1998b | Keeler-Wolf et al.  2005, Klein and Evens 2005, Nixon 2002, Nixon and Muller 1997, |
| Association | Gordon and White 1994 | Evens and San 2005, Keeler-Wolf et al. 1998b, 2005 |
| Association | Keeler-Wolf et al. 1998b | Keeler-Wolf et al.  2005, Klein and Evens 2005, Nixon 2002, Nixon and Muller 1997, |
| Association | Keeler-Wolf et al. 2005 | |
| Alliance | Borchert et al. 2004 | |
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| Association | Gordon and White 1994 | Borchert et al. 2004, Nixon and Muller 1997 |
| Association | Evens et al. 2006 | |
| Association | Evens et al. 2006 | |
| Association | Evens et al. 2006 | |
| Association | Evens et al. 2006 | |
| Alliance | Gordon and White 1994 | Evens and San 2005, Bissing 1992, Bullock and Chamela 1991, |
| Association | Gordon and White 1994 | Conard et al. 1985, Hanes 1976, 1977, 1981, Horton 1960, Keeler-Wolf et al. 1998b, Keeley 1993c, Keeley and Keeley 1988 |
| Association | Evens and San 2005 | Gordon and White 1994, Conardet al. 1985, Keeler-Wolf et al. 1998b, Keeley 1993c, Keeley and |
| Alliance | Evens 2000 | Nixon 2002, Reid et al. 1999, Tirmenstein 1999h, Thomas et al. 2004 |
| Association | Keeler-Wolf and Thomas 2000 | Evens 2000, Nixon 2002, Reid et al. 1999, |
| Association | Keeler-Wolf and Thomas 2000 | Evens 2000, Nixon 2002, Reid et al. 1999, Tirmenstein 1999h, Thomas et al. 2004 |
| Alliance | Keeler-Wolf et al. 1998 | |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | Keeler-Wolf and Evens□ | |
| Association | Evens and San 2005 | Klein and Evens 2005 |
| | | |
| Alliance | Barry 1989a□ | Barry 1989b, Bolsinger 1989, Dyer and O'BeckKeeler-Wolf et al. 2003b |
| Association | Keeler-Wolf et al. 2003b | Minnich 1999, Oakley et al. 2003, Paysen et al. 1980, Reeves 2006, |
| Alliance | Howard 1992d | |
| | | |
| Association | Keeler-Wolf and Moore 2001 | Keeler-Wolf et al. 2003b, Pase |
| Alliance | Lee 2004 | |
| Association | Lee 2004 | McMurray 1989c. Manos, P.S., Cannon, C.H., and S. Oh. 2008. Phylogenetic relationships and |
| Association | Lee 2004 | McMurray 1989c. Manos, P.S., Cannon, C.H., and S. Oh. 2008. Phylogenetic relationships and |

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| Alliance | Sawyer et al. 1978b | Muth 1976, 1980, Nixon 2002, Nixon and Muller 1997 |
| Provisional Association | Sawyer et al. 1978b | |
| Alliance | Keeler-Wolf et al. 2003b | |
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| Association | Keeler-Wolf and Moore 2001 | Keeler-Wolf et al. 2003b, Riser |
| Association | Keeler-Wolf and Moore 2001 | Keeler-Wolf et al. 2003b, Riser |
| Association | Keeler-Wolf and Moore 2001 | Keeler-Wolf et al. 2003b, Riser |
| Alliance | Keeler-Wolf et al. 2003b | Barbour 1988 |
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| Association | Keeler-Wolf and Moore 2001 | Keeley 1988, Reid et al. 1999, Riser and Fry 1994, |
| Association | Sawyer and Thornburgh 1977 | Solinas et al. 1985, Tinnin and Kirkpatrick 1985, Zimmerman 1991a |
| Alliance | Hanes 1977 | Anderson 2001b, Bolsinger 1989, Conard and Radosevich |
| | | |
| Association | Keeler-Wolf et al. 2003b | Riser and Fry 1994, Solinas et al.1985, Winward 1994. |
| Association | Keeler-Wolf et al. 2003b | Riser and Fry 1994, Solinas et al.1985, Winward 1994 |

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| Alliance | Sawyer and Keeler-Wolf 1995 | |
| Association | Casavecchia and Biondi 2001 | |
| Association | Casavecchia and Biondi 2001 | |
| Association | Kaye 2003 | Junak et al. 2007 |
| Association | Johnson and Rodriguez 2001 | Junak et al. 2007, Kaye 2003 |
| Association | Holton and Johnson 1979 | |
| Association | Johnson and Rodriguez 2001 | Junak et al. 2007, Kaye 2003 |
| Association | Bluestone 1981 | |
| Association | Keeler-Wolf et al. 2001 | MacDonald and Barbour 1974 |
| Association | McBride and Stone 1976 | |
| Association | Duebendorfer 1989 | |
| Association | Casavecchia and Biondi 2001 | |
| Association | Parker 1974 | Johnson 1977 |
| Provisional Semi-natural Stands | Williams and Potter 1972 | |
| Association | Wiedemann 1984 | Pickart and Barbour 2007, Pickart and Sawyer 1998, |
| Provisional Alliance | McBride and Stone 1976 | Pickart and Barbour 2007, Stromberg et al. 2002 |
| Alliance | Pickart and Barbour 2007 | Barbour and Johnson 1977 |
| Association | Johnson 1963 | LaBlanca 1993, Parker 1974, Pickart and Barbour 2007, Pickart and Sawyer 1998, Wiedemann 1984 |
| Association | LaBanca 1993 | |
| Association | Bluestone 1981 | Kaye 2003, Kumler 1969 |
| Alliance | Borchert et al. 2004 | Evens and Kentner 2006 |

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| Association | DaSilva and Bartolome 1984 | Borchert et al. 2004, Keeler-Wolf and Evens 2006 |
| Association | Parker 1974 in Barbour and Johnson 1977 modified by | cf. Belsher 1999, Keeler-Wolf et al. 2003a, Parker 1974, Paysen et al. 1980, |
| Association | Heady et al. 1977 | Keeler-Wolf and Evens 2006 |
| Provisional Association | Evens and San 2004 | |
| Association | Keeler-Wolf et al. 2003a | Evens and Kentner 2006 |
| Association | Keeler-Wolf et al. 2003a | Evens and Kentner 2006 |
| Association | Keeler-Wolf et al. 2003a | |
| Association | Keeler-Wolf et al. 2003a | |
| Association | Keeler-Wolf et al. 2003a | |
| Association | O'Neil and Egan 2004 | |
| Association | Keeler-Wolf et al. 2003a | |
| Association | Keeler-Wolf et al. 2003a | |
| Association | DaSilva and Bartolome 1984 | Borchert et al. 2004 |
| Association | Keeler-Wolf et al. 2003a | cf. Belsher 1999, Evens and Kentner 2006, O'Neil and |
| Association | Parker 1974 in Barbour and Johnson 1977 | Paysen et al. 1980, Pickart and Sawyer 1998, Reid et al. 1999, Ross 2002a, |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | Keeler-Wolf et al. 2003a | |
| Association | Keeler-Wolf et al. 2003a | |
| Association | Elliot and Wehausen 1974 | |
| Association | Keeler-Wolf et al. 2003a | |
| Association | Baxter 1992 | cf. Belsher 1999, Keeler-Wolf et al. 2003a |

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| Association | Fiedler and Leidy 1987 | |
| Association | Keeler-Wolf et al. 2003a | Evens and Kentner 2006 |
| Association | Evens and Kentner 2006 | |
| Association | Grams et al. 1977 | Heady et al. 1977, Hobbs and Mooney 1986, Jones and Stokes Associates 1993, Keeler-Wolf et al. 2003a |
| Association | Parker 1974 in Barbour and Johnson 1977 | LaBanca 1993, McBride 1974, McBride and |
| Association | cf. Belsher 1999 | |
| Alliance | Keeler-Wolf et al. 2003a | Evens et al. 2006 |
| | | |
| Association | Keeler-Wolf et al. 2003a | |
| Association | Evens and Kentner 2006 | |
| Association | Keeleer-Wolf et al. 2003a | Everns and Kentner 2006 |
| Alliance | Keeler-Wolf et al. 2003a | |
| Association | Klein et al. 2007 | |
| Association | Evens and San 2005 | Klein and Evens 2005, McMurray 1990b |
| Association | Evens and San 2004 | |
| Association | Keeler-Wolf et al. 2003a | |
| Provisional Alliance | Keeler-Wolf et al. 2003a | D. Shirokauer pers. comm. 2003 |
| | | |
| Alliance | Barbour and Johnson 1977c | Barbour 1994, Davidson and Barbour 1977 |
| Association | Holton and Johnson 1979 | Junak et al. 2007 |
| Association | Holton and Johnson 1979 | Junak et al. 2007 |
| Association | Hektner and Foin 1977 | |
| Association | Duebendorfer 1989 | |
| Association | Parker 1974 | Pickart 2000, Pickart and Barbour 2007, Pickart and Sawyer 1998, Ross 2002b, Rudgers and Maron 2003 |
| Association | Bluestone 1981 | Breckon 1974 |
| Alliance | Barbour 1970 | Barbour and Johnson 1977c, Barbour |
| Association | Holton and Johnson 1979 | Jones 1984 |
| Association | Holton and Johnson 1979 | Jones 1984, Keeler-Wolf et al. 2003a, Pickart and Barbour 2007, Russell 1983 |
| Alliance | Keeler-Wolf and Evens 2006 | Qinfeng Guo and Rundel 1998 |
| Association | Keeler-Wolf and Evens 2006 | Qinfeng Guo and Rundel 1998 |
| Semi-natural Stands | Barbour 1970 | Apteckar 2000, Barbour 1970, Barbour and Johnson |
| Semi-natural Stands | Duebendorfer 1989 | LaBanca 1993 |
| Semi-natural Stands | Keeler-Wolf et al. 2003a | |
| Semi-natural Stands | Parker 1974 | LaBanca 1993 |
| Semi-natural Stands | Casavecchia and Biondi 2001 | |
| Provisional Semi-natural Stands | Barbour and Rodman 1970 | Barbour 1972, Boyd 1988, Boyd and Barbour 1993, Pickart and Barbour 2007, |
| Semi-natural Stands | D'Antonio 1993 | Albert 2000, Albert and Antonio 2000, Bossard et al. 2000, D'Antonio 1993, DiTomaso and Healey |
| | | |
| Alliance | Beguin and Major 1975 | |
| Association | Padgett et al. 1989 | Cooper and Wolf 2006, Hansen et al. 1995 |
| Association | Beguin and Major 1975 | |
| Association | Padgett et al. 1989 | Cooper and Wolf 2006, Hansen et al. 1995 |
| Provisional Alliance | Christy 2004 | |
| Provisional Association | Cooper and Wolf 2006 | |
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| Alliance | Cheatham and Haller 1975 | Barry 1989a, 1989b, Bittman 1985, Cheatham 1976, Crane 1990, Fowlie 1982, Gore 1983 |
| Association | Jimerson et al. 1995 | Kagan et al. 2004, Keeler-Wolf 1986e, 1990e, Knight et al. 1970, |
| Alliance | Holland 1986 | Christy 2004, Imper and Sawyer 1992, Wallace 1992 |
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| Association | Holland 1986 | Imper and Sawyer 1992, Wallace 1992 |
| Association | Cooper and Wolf 2006 | Gucker 2006c |
| Alliance | Cooper and Wolf 2006 | |
| Association | Cooper and Wolf 2006 | |
| Association | Cooper and Wolf 2006 | |
| Association | Cooper and Wolf 2006 | |
| Alliance | Keeler-Wolf et al. 2003b | |
| Association | Keeler-Wolf et al. 2003b | Matthews 1992b |
| Association | Cooper and Wolf 2006 | |
| Association | Cooper and Wolf 2006 | |
| Association | Potter 2005 | |
| | | |
| Alliance | Keeler-Wolf and Vaghti 2000 | |
| Association | Uchytil 1992a | Hickson and Keeler-Wolf 2007, Keeler-Wolf |
| Association | Uchytil 1992a | Hickson and Keeler-Wolf 2007, Keeler-Wolf |
| Alliance | Holland 1986 | Hickson and Keeler-Wolf 2007 |
| Association | Hickson and Keeler-Wolf 2007 | Klein et al. 2007 |
| Association | Keeler-Wolf and Vaghti 2000 | |

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| Association | Hickson and Keeler-Wolf 2007 | |
| Association | Odion et al. 1992a | |
| Association | Hickson and Keeler-Wolf 2007 | |
| Association | Hickson and Keeler-Wolf 2007 | |
| Association | Hickson and Keeler-Wolf 2007 | |
| Alliance | Atwater et al. 1979 | |
| Association | Keeler-Wolf and Vaghti 2000 | Reid et al. 1999, Vaghti and Greco 2007, Purer 1942 |
| Association | Keeler-Wolf and Vaghti 2000 | Keeler-Wolf and Vaghti 2000, Reid et al. 1999, Vaghti and |
| Association | Hickson and Keeler-Wolf 2007 | |
| Association | Keeler-Wolf and Vaghti 2000 | Keeler-Wolf and Evensb 2006, Purer 1942, Reid et al. 1999, |
| Association | Keeler-Wolf and Vaghti 2000 | Reid et al. 1999, Vaghti and Greco 2007, Purer 1942 |
| Association | Keeler-Wolf et al. 2003a | |
| Alliance | Keeler-Wolf and Vaghti 2000 | Evens and San 2005, Evens and Kentner 2006, Pickart 2006, |
| Association | Evens and Kentner 2006 | Keeler-Wolf and Vaghti 2000 |
| Association | Hickson and Keeler-Wolf 2007 | |
| Association | Keeler-Wolf and Vaghti 2000 | |
| Association | Keeler-Wolf and Vaghti 2000 | |
| Association | Keeler-Wolf and Vaghti 2000 | |
| Association | Keeler-Wolf and Vaghti 2000 | |
| Association | Keeler-Wolf and Vaghti 2000 | |
| Association | Junak et al. 2007 | |
| Association | Keeler-Wolf et al. 2001 | Evens and Kentner 2006, Evens and San 2005, Ferren 1989a, Ferren |
| Association | Keeler-Wolf and Vaghti 2000 | |
| Alliance | Pickart 2006 | Grewell et al. 2007, Kagan et al. 2004 |
| Association | Pickart 2006 | |
| Association | Pickart 2006 | |
| Association | Pickart 2006 | |
| Association | Pickart 2006 | |
| Alliance | Keeler-Wolf et al. 2003b | |
| Association | Newton 1989 | Pickart 2006 |
| Association | Duebendorfer 1989 | |
| Association | Keeler-Wolf et al. 2003 | |
| Alliance | Evens and San 2005 | Keeler-Wolf et al. 2003a, Evens and Kentner 2006, Klein et al. 2007 |
| Association | Keeler-Wolf et al. 2003a | Evens and Kentner 2006, Evens and San 2005, Klein et al. 2007, Moran 2004a, b |
| Alliance | Pickart 2006 | |
| Association | Stevens 2000a | Pickart 2006 |
| Association | Casavecchia and Biondi 2001 | |
| Provisional Alliance | Stuart et al. 1996 | Keeler-Wolf et al. 2003b |
| Alliance | Pickart 2006 | |
| Association | Pickart 2006 | Kagan et al. 2004 |
| Alliance | Keeler-Wolf et al. 2003a | Potter 2005 |
| Association | S. Smith 1998 | Cooper and Wolf 2006, Keeler-Wolf et al. 2003a, Kagan et al. 2004, Pickart 2006 |
| Association | Halpern 1985 | |
| Association | Potter 2005 | |

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| Provisional Alliance | Smith 1998 (Draft) | |
| Alliance | Barbour et al. 2007 | |
| Association | Barbour et al. 2007 | Klein et al. 2007, Platenkamp 1998 |
| Association | S. Smith 1998 | |
| Association | Barbour et al. 2007 | Klein et al. 2007, Platenkamp 1998 |
| Association | Taylor et al. 1992 | |
| Provisional Association | Klein et al. 2007 | Schlising and Sanders 1982 |
| Association | Barbour et al. 2003 | Barbour et al. 2007, Klein et al. 2007,Platenkamp 1998 |
| Association | Barbour et al. 2007 | Klein et al. 2007, Platenkamp 1998 |
| Association | Barbour et al. 2007 | |
| Alliance | Klein and Evens 2006 | |
| Association | Potter 2005 | Pickart 2006, Klein et al. 2007 |
| Provisional Association | | |
| Provisional Association | Kepecko and Lathrop 1975 | |
| Association | Klein and Evens 2005 | |

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| Association | Barbour et al. 2003 | |
| Provisional Association | | |
| Provisional Association | Evens, San and Taylor 2004 | |
| Alliance | S. Smith 1998 | |
| Association | Potter 2005 | Klein et al. 2007 |
| Association | cf. S. Smith 1998 | |
| Association | cf. S. Smith 1998 | |
| Alliance | Barbour et al. 2007 | |
| Association | Barbour et al. 2007 | |
| Provisional Alliance | Keeler-Wolf and Vaghti 2000 | Keeler-Wolf et al. 2003a, Hickson and Keeler-Wolf 2007 |
| Alliance | Klein and Evens 2005 | |
| Association | Barbour et al. 2007 | |
| Association | Klein and Evens 2005 | |
| Alliance | Baldwin 2000 | Klein and Evens 2005 |
| Association | Klein and Evens 2005 | |
| Association | Klein and Evens 2005 | |
| Alliance | Barbour et al. 2008 | Barbour et al. 2007, Barbour et al. 2003, Keeler-Wolf et al. 1998a, Holland 1976, Sawyer and Keeler- |
| Provisional Association | Taylor 1992 | |
| Association | Barbour et al. 2008 | Barbour et al. 2007, Barbour et al. 2003, Holland 1976, Keeler-Wolf et al. 1998a, Sawyer and Keeler- |
| Association | Barbour et al. 2008 | Barbour et al. 2007, Barbour et al. 2003, Holland |
| Association | Barbour et al. 2008 | Barbour et al. 2007, Barbour et al. 2003, Holland |
| Association | Barbour et al. 2008 | Barbour et al. 2007, Barbour et al. 2003, Holland |
| Association | Barbour et al. 2008 | Barbour et al. 2007, Barbour et al. 2003, Holland |
| Association | Barbour et al. 2008 | Barbour et al. 2007, Barbour et al. 2003, Holland |
| Association | Barbour et al. 2008 | Barbour et al. 2007, Barbour et al. 2003, Holland |
| Association | Barbour et al. 2008 | Barbour et al. 2007, Barbour et al. 2003, Holland |
| Alliance | Barbour et al. 2007 | |
| Association | Barbour et al. 2008 | Barbour et al. 2007, Barbour et al. 2003, Holland |
| Association | Barbour et al. 2005 | Barbour et al. 2007, Barbour et al. 2003, Platenkamp 1998 |
| Association | Barbour et al. 2005 | Barbour et al. 2007, Barbour et al. 2003, Platenkamp 1998 |
| Association | Barbour et al. 2005 | Barbour et al. 2007, Barbour et al. 2003, Platenkamp 1998 |
| Association | Barbour et al. 2005 | Barbour et al. 2007, Barbour et al. 2003, Platenkamp 1998 |
| Association | Barbour et al. 2005 | Barbour et al. 2007, Barbour et al. 2003, Platenkamp 1998 |
| Association | Barbour et al. 2005 | Barbour et al. 2007, Barbour et al. 2003, Platenkamp 1998 |
| Alliance | Barbour et al. 2007 | |
| Association | Barbour et al. 2007 | Klein et al. 2007, Barbour et al. 2003, 2005, |
| Association | Sawyer and Keeler-Wolf 1995 | Klein et al. 2007 |
| Association | Sawyer and Keeler-Wolf 1995 | Klein et al. 2007 |
| Association | Barbour et al. 2003 | Barbour et al. 2007, 2005, Holland 1976, Keeler-Wolf et al. 1998a, |
| Alliance | Keeler-Wolf et al. 1998a | Barbour et al. 2007, Barbour et al. 2003, 2005, Holland 1976, Sawyer and Keeler-Wolf 1995 |
| Association | Keeler-Wolf et al. 1998a | Barbour et al. 2007, Barbour et al. 2003, 2005, Holland 1976, , Sawyer and Keeler-Wolf 1995 |
| Alliance | Klein et al. 2007 | Barbour et al. 2007, Evens and Kentner 2006. |
| Association | Evens and Kentner 2006 | Barbour et al. 2007 |
| Association | Klein et al. 2007 | |
| Association | Klein et al. 2007 | |
| Association | Klein et al. 2007 | |
| Association | Klein et al. 2007 | |

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| Alliance | Potter 2005 | |
| Association | S. Smith 1998 | |
| Alliance | Christy 2004 | Anderson 2005, Boyd 1999 |
| Association | Cooper and Wolf 2006 | Kuhnlein and Turner 1991, Stevens |
| Alliance | Potter 2005 | |
| Association | S. Smith 1998 | Keeler-Wolf et al. 2003b, |
| Association | Potter 2005 | |
| Provisional Alliance | Evens and Kentner 2006 | |
| Provisional Association | Evens and Kentner 2006 | |
| Provisional Association | Evens and Kentner 2006 | |
| Association | Cooper and Wolf 2006 | Hauser 2006a |
| Association | Cooper and Wolf 2006 | Hauser 2006a |
| Provisional Alliance | Taylor 1984 | Christy 2004, Sawyer and Keeler-Wolf 2007 |
| Alliance | Mason 1957 | Major and Taylor 1977 |
| Association | Major and Taylor 1977 | Mason 1957,Manning and Padgett 1995, Ratliff 1985, |
| Association | Potter 2005 | |
| Association | Keeler-Wolf and Moore 2001 | |
| Association | Taylor 1984 | Keeler-Wolf et al. 2003b |
| Association | Nachlinger 1985 | |

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| Association | Taylor 1984 | Keeler-Wolf et al. 2003b |
| Association | Hermann 1970 | Cooper and Wolf 2006 |
| Association | Potter 2005 | |
| Alliance | Beguin and Major 1975 | Allen-Diaz 1994, Barry 1989a, 1989b,Benedict 1983, Cheatham and Haller 1975, Cooper and Wolf 2006, Cope 1992b, Halpern 1986, Hermann |
| Association | Taylor 1984 | Halpern 1986, Potter 2003 |
| Association | Benedict 1983 | Cheatham and Haller 1975, Cheng 2004 |
| Association | Beguin and Major 1975 | Shiflet 1994, Cooper and Wolf 2006, Cope 1992b, Potter 2005, S. Smith 1998 |
| Alliance | Benedict 1983 | Potter 2005, Keeler-Wolf et al. 2003b |
| Association | Manning and Padgett 1985 | S. Smith 1998 |
| Association | Benedict 1983 | Potter 2005 |
| Association | Cooper and Wolf 2006 | |
| Association | Cooper and Wolf 2006 | |
| Association | Cooper and Wolf 2006 | |
| Association | Cooper and Wolf 2006 | |
| Alliance | S. Smith 1998 | Keeler-Wolf et al. 2003b |
| Association | Keeler-Wolf et al. 2003b | |
| Association | Halpern 1986 | |
| Association | Halpern 1986 | |
| Association | S. Smith 1998. | |
| Provisional Alliance | Smith 1998 | Darris 2006 |
| Alliance | Halpern 1986 | Potter 1005, Cooper and Wolf 2006 |
| Association | Potter 2005 | |
| Association | Halpern 1986 | |
| Association | Halpern 1986 | |
| Association | Cooper and Wolf 2006 | |
| Association | Cooper and Wolf 2006 | |
| Alliance | Keeler-Wolf et al. 2003b | Potter 2005 |
| Association | Halpern 1986 | Potter 2005 |
| Association | Potter 2005 | |
| Association | Manning and Padgett 1995 | |
| Alliance | Beguin and Major 1975 | Keeler-Wolf et al. 2003b |
| Association | Beguin and Major 1975 | Cheng 2004, S. Smith 1998 |
| Association | Taylor 1984 | |
| Alliance | Evens and Kentner 2006 | Hickson and Keeler-Wolf 2007, Klein et al. 2007 |
| Association | Evens and Kentner 2006 | Hickson and Keeler-Wolf 2007, Klein et al. 2007, Stevens 1999, 2000c, 2003, |
| Alliance | Potter 2005 | Evens San and Taylor 2004 |
| Association | S. Smith 1998 | Evens et al. 2004, Klein et al. 2007, Potter 2005, |
| Provisional Alliance | Evens et al. 2004 | Alexander et al. 2006, Evens and Kentner 2006, Klein |
| Alliance | Keeler-Wolf and Vaghti 2000 | |
| Association | Evens and San 2004 | USFWS 2007 |
| Association | Evens and San 2004 | USFWS 2007 |
| Association | Evens and San 2004 | UWFWS 2007 |
| Alliance | Keeler-Wolf and Vaghti 2000 | Evens and San 2005, Evens et al. 2006, Manning and Padgett 1995 |
| Association | Keeler-Wolf and Vaghti 2000 | |
| Association | Taylor 1984 | |
| Association | Keeler-Wolf and Vaghti 2000 | |
| Association | Klein et al. 2007 | |
| Association | Keeler-Wolf and Vaghti 2000 | |
| Association | Keeler-Wolf and Vaghti 2000 | |
| Association | Keeler-Wolf and Moore 2001 | Evens and San 2005 |
| Provisional Alliance | Evens and San 2004 | Klein et al. 2007 |
| Alliance | Keeler-Wolf and Vaghti 2000 | Evens and San 2004 |
| Association | Keeler-Wolf and Vaghti 2000 | Holstein 2001, Keeler-Wolf and Evens 2006, NatureServe 2007a, Solomeshch |
| Association | Stillwater Sciences and URS 2007 | |
| Association | Junak et al. 2007 | |
| Association | O'Neil and Egan 2004 | |
| Association | Heady 1977 | Evens and San 2004 |
| Association | Odion et al. 1992a | |
| Alliance | Klein et al. 2007 | NatureServe 2007a, S. Smith 1998 |
| Association | Cooper and Wolf 2006 | |
| Association | NatureServe 2007a | |
| Association | Klein et al. 2007 | |
| Association | S. Smith 1998 | Potter 2005 |
| Association | Keeler-Wolf et al. 2003b | |
| Alliance | Klein and Evens 2005 | NatureServe 2007a, Klein et al. 2007, Anderson 1996, 2003, 2005 |
| Association | Martin 1981 | Klein et al. 2007, NatureServe 2007b |
| Semi-natural Stands | Keeler-Wolf and Evens 2006 | Evens et al. 2005, DiTomaso and Healy 2003 |
| Semi-natural Stands | Howald 2000 | Evens and San 2005, Keeler-Wolf and Evens 2006, Keeler-Wolf and Vaghti 2000, Klein and Evens2006, Renz 2000, Zouhar 2004 |
| Semi-natural Stands | Keeler-Wolf and Vaghti 2000 | |

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| Provisional Alliance | Kieeler-Wolf and Vaghti 2000 | DiTomaso and Healy 2007 |
| Alliance | Keeler-Wolf and Vaghti 2000 | Keeler-Wolf and Evens 2006 |
| Association | Junak et al. 2007 | |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | Keeler-Wolf and Vaghti 2000 | |
| Association | Junak et al. 2007 | |
| Association | Keeler-Wolf and Vaghti 2000 | |
| Association | MacDonald 1977 | Levine et al. 2002, Keeler-Wolf et al. 2005 |
| Association | Junak et al. 2007 | |
| Association | Peinado et al. 1994 | |
| Association | Odion et al. 1992 | Paysen et al. 1980, 1982 |
| Association | Bradley 1970 | Cheatham and Haller 1975, Chapman 1977 |
| Association | Junak et al. 2007 | |
| Association | Pickart 2006 | |
| Association | Atwater et al. 1979 | Barry 1989a, b, Hickson and Keeler- |
| Association | Bradley 1970 | Cheatham and Haller 1975, Chapman 1977 |
| Association | Keeler-Wolf and Vaghti 2000 | Hickson and Keeler-Wolf 2007, Junak et al. 2007 |
| Association | Paysen et al. 1980 | Paysen et al. 1980, 1982, Odion et al. 1992 |
| Association | Ferren and Davis 1991 | |
| Alliance | Keeler-Wolf and Vaghti 2000 | |
| Association | Pickart 2006 | |
| Association | Keeler-Wolf and Vaghti 2000 | |
| Association | Keeler-Wolf and Vaghti 2000 | |
| Alliance | Atwater et al. 1979 | Evens and San 2005, Keeler-Wolf and Evens 2006, Hickson and Keeler-Wolf 2007 |
| Association | Duke et al. 1999 | |
| Association | Atwater et al. 1979 | Barnhart et al.1992, Cuneo 1987, Duke et al. 1999, Peinado et al. 1994, Pickart 2006, Purer 1942, |
| Association | Henderson 1976 | Grewell et al. 2007 |
| Association | Duke et al. 1999 | Keeler-Wolf and Vaghti 2000, MacDonald 1977, MacDonald and Barbour 1974 |
| Association | Duke et al. 1999 | |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | MacDonald and Barbour 1974 | Hickson and Keeler-Wolf 2007, Keeler-Wolf and Vaghti 2000, Josselyn 1983, MacDonald 1977, |
| Association | MacDonald and Barbour 1974 | Keeler-Wolf and Vaghti 2000, MacDonald 1977 |
| Association | Hendrickson 1976 | Grewell et al. 2007 |
| Association | Eicher 1987 | Newton 1989, Paysen et al. 1980, Atwater et al. 1979, Barnhart et al. 1992, Chapman 1977, Duke et al. 1999, Duke et al. 1999, Grewell et al. |
| Association | MacDonald and Barbour 1974 | Keeler-Wolf and Vaghti 2000, MacDonald 1977 |
| Association | Duke et al. 1999 | |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | Chapman 1977 | Atwater et al. 1979, Barnhart et al. 1992, Cuneo 1987, Duke et al. 1999 |
| Association | Hendrickson 1976 | Atwater et al. 1979, Barnhart et al. 1992, Cuneo 1987, Grewell et al. 2007, Chapman 1977 |
| Association | Paysen et al. 1980 | Eicher 1987, Newton 1989 |
| Association | MacDonald and Barbour 1974 | Keeler-Wolf and Vaghti 2000, MacDonald 1977 |
| Association | Duke et al. 1999 | |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | MacDonald and Barbour 1974 | Keeler-Wolf and Vaghti 2000, MacDonald 1977 |
| Alliance | Keeler-Wolf and Vaghti 2000 | |
| Association | Atwater et al. 1979 | Barry 1989a, b, Cheatham and Haller 1975, Chapman 1977, Peinado et al. 1994, Purer 1942, Shiflet 1994, |
| Association | Hendrickson 1976 | Grewell et al.2007 |
| Semi-natural Stands | Pickart 2006 | DiTomaso and Healy 2007 |
| Stand Type | Eicher 1987 | Eicher 1987, Eicher and Sawyer 1989, Faber 2000, Grewell et al. 2007, MacDonald 1977, Pickart 2006, Spicher and Josselyn 1985. |
| Alliance | Keeler-Wolf and Vaghti 2000 | Baye et al. 2000 |
| Association | Keeler-Wolf and Vaghti 2000 | |
| Association | Keeler-Wolf and Vaghti 2000 | |
| Association | Keeler-Wolf and Vaghti 2000 | |
| Association | Keeler-Wolf and Vaghti 2000 | |
| Semi-natural Stands | Keeler-Wolf and Vaghti 2000, HBNWR | Pickart 2006 |
| Semi-natural Stands | Keeler-Wolf and Vaghti 2000 | Khan and Ungar 1986 |
| Semi-natural Stands | Keeler-Wolf and Vaghti 2000 | Khan and Ungar 1986 |
| Semi-natural Stands | Keeler-Wolf and Vaghti 2000 | Khan and Ungar 1986 |
| Semi-natural Stands | Keeler-Wolf and Vaghti 2000 | Khan and Ungar 1986 |
| Semi-natural Stands | Keeler-Wolf and Vaghti 2000 | Khan and Ungar 1986 |
| Semi-natural Stands | Keeler-Wolf and Vaghti 2000 | Khan and Ungar 1986, Pickart 2006 |

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| Alliance | Thomas et al. 2004 | |
| Association | Thomas et al. 2004 | Thorne 1982, Tueller 1994, Vasek and Barbour 1977, |
| Association | Ferren and Davis 1991 | MacMahon 1988, Paysen et al. 1980, 2000 |

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| Alliance | Klein and Evens 2006 | |
| Association | Anderson and Roderick 2000 | Evens and San 2005, Klein and Evens 2005 |
| Alliance | Thomas et al. 2004 | |
| Association | Keeler-Wolf and Thomas 2000 | Thomas et al. 2004 |
| Alliance | Keeler-Wolf and Thomas 2000 | |
| Association | Bradley 1970 | |
| Association | Odion et al. 1992 | |
| Association | Keeler-Wolf and Vaghti 2001 | |
| Association | Keeler-Wolf and Vaghti 2001 | |
| Association | Keeler-Wolf and Vaghti 2000 | |
| Alliance | Odion et al 1992 | |
| Association | Odion et al. 1992a | |
| Alliance | Thomas et al. 2004 | Brown 1982f, Barry 1989a, b, Bittman 1985, Keeler- Wolf anf Thomas 2000, Klein and Evens 2006 |
| | | |
| Association | Keeler-Wolf and Thomas 2000 | Solomeshch and Barbour 2006, Thorne 1982, Werschskull et al. 1984 |
| Association | Odion et al. 1992a | Paysen et al. 1980, 1982 |
| Association | Griggs 1980a | Griggs 1980b, Ferren and Davis 1991 |
| Alliance | Thomas et al. 2004 | |
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| Association | Keeler-Wolf et al 1998b | Thomas et al. 2004, Evens and Hartman 2007, Griggs 1980b, MacMahon |
| Association | Paysen et al. 1980 | Odion et al.1992a, Paysen et al. 1982 |
| Association | Bradley 1970 | Brown et al. 1980, Burk 1977, Cheatham and Haller 1975 |
| Alliance | Adams 1990 | Keeler-Wolf and Evens 2006 |
| Association | Evens and San 2005 | Keeler-Wolf and Evens 2006, Peinado |
| Association | Grewell et al. 2007 | |
| Association | Evens and San 2005 | Keeler-Wolf and Evens 2006 |
| Alliance | Keeler-Wolf et al. 1998b | Keeler-Wolfand Evens 2006, Favorite 2005a |
| Association | Keeler-Wolf and Vaghti 2000 | Keeler-Wolf and Evens 2006, Keeler-Wolf et al. 1998b, Meyer 2005a, Pearcy and |
| Alliance | Thomas et al. 2004 | Bittman 1985, Burk 1977 |
| Association | Charlton 2000a | Charlton 2000b |
| Association | Evens and Hartman 2007 | Griggs and Zaninovitch 1984, Johnson 1976, Keeler-Wolf 2007, MacMahon 1988, MacMahon and Wagner |
| Association | Evens et al. 2006 | |
| Alliance | Holland 1976 | Barbour et al. 2003, 2007, Keeler-Wolf et al. 1998, Sawyer and Keeler-Wolf 1995, USFWS 2004 |
| Provisional Association | Barbour et al. 2007 | |
| Provisional Association | Barbour et al. 2007 | |
| Provisional Association | Barbour et al. 2008 | |
| Provisional Association | Barbour et al. 2007 | |
| Association | Barbour et al. 2008 | Barbour et al. 2007, Barbour et al. 2003, Holland |
| Alliance | Keeler-Wolf and Vaghti 2000 | Keeler-Wolf and Evens 3006 |
| Association | Keeler-Wolf and Vaghti 2000 | |
| Association | Keeler-Wolf and Evens 2006 | |
| Association | Keeler-Wolf and Vaghti 2000 | |
| Association | Keeler-Wolf and Vaghti 2000 | |
| Association | Junak et al. 2007 | |
| Alliance | Keeler-Wolf et al. 1998b | Barry 1989a, 1989b |
| Association | Evens and Hartman 2007 | Faden 1977 |
| Association | | |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Paysen et al. 1980, 1982, Thomas et al. 2004, Thorne 1976, Vasek and |
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| Alliance | Cheatham and Haller 1975 | Barry 1989a, 1989b, Bowers 1984, Burk 1977 |
| Association | Evens and Hartman 2007 | Felger 1980, Hunt 1966, Jones and Stokes Associates 1993 |
| Association | Keeler-Wolf et al. 1998b | |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988,  and many more; see MCVII. |
| Association | Keeler-Wolf et al.1998b | Keeler-Wolf and Thomas 2000, MacMahon 1988, Marshall |
| Association | Evens and Hartman 2007 | Felger 1980, Hunt 1966, Jones and Stokes Associates 1993 |
| Association | Evens and Hartman 2007 | Felger 1980, Hunt 1966, Jones and Stokes Associates |
| Association | Keeler-Wolf et al. 1998b | Keeler-Wolf and Thomas 2000, MacMahon 1988, Marshall 1994, McAuliffe 1988, Paysen et al. 1980, 1982, Reidet al. 1999, Shiflet 1994, Thorne |
| Alliance | Keeler-Wolf et al. 1998b | Evens 2000, Thomas et al. 2004, Evens and Hartman 2007 |
| Association | Keeler-Wolf et al. 1998b | Evens 2000, Hart et al. 1979, Johnson 1976, Keeler-Wolf 2007, Keeler-Wolf et al. 1998b,  Keeler-Wolf et al. 2005,  Keeler-Wolf and |
| Association | Keeler-Wolf and Thomas 2000 | McHargue 1973, O'Leary and Minnich 1981, Strother and Baldwin 2002, Thomas et al. 2004, |
| Association | Keeler-Wolf and Thomas 2000 | McHargue 1973, O'Leary and Minnich 1981, Strother and Baldwin 2002, Thomas et al. 2004, |

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| Association | | Keeler-Wolf and Thomas 2000 | McHargue 1973, O'Leary and Minnich 1981, Strother and Baldwin 2002, Thomas et al. 2004, |
| Association | | Keeler-Wolf and Thomas 2000 | McHargue 1973, O'Leary and Minnich 1981, Strother and Baldwin 2002, Thomas et al. 2004, |
| Association | | Keeler-Wolf et al. 1998b | Keeler-Wolf and Thomas 2000, McHargue 1973, O'Leary and Minnich |
| Association | | Keeler-Wolf and Thomas 2000 | McHargue 1973, O'Leary and Minnich 1981, Strother and Baldwin 2002, Thomas et al. 2004, |
| Association | | Evens and Hartman 2007 | |
| Association | | Keeler-Wolf and Thomas 2000 | McHargue 1973, O'Leary and Minnich 1981, Strother and Baldwin 2002, Thomas et al. 2004, |
| Association | | Keeler-Wolf and Thomas 2000 | McHargue 1973, O'Leary and Minnich 1981, Strother and Baldwin 2002, Thomas et al. 2004, |
| Alliance | | Cheatham and Haller 1975 | Barry 1989a,1989b, Bittman 1985, Brown et al. 1980, |
| Association | | Peterson 1984a | Peterson 1984b, Keeler-Wolf 2007, Keeler-Wolf |
| Association | | Yoder et al. 1983 | |
| Association | | Griggs and Zaninovitch 1984 | Evens and Hartman 2007, Griggs 1980b, , Johnson 1976 |
| Alliance | | Burk 1977 | Barbour 1994, Barry 1989a, b, Brown and Minnich |
| Association | Coastal sage scrub | Klein and Evens 2005 | MacMahon 1988 |
| Association | Warm desert | Vasek and Barbour 1977 | Evens and Hartman 2007, Hunt 1966, Keeler-Wolf and Thomas 2000, Minnich et al. 1993, Pase |
| Association | | Evens and Hartman 2007 | Hunt 1977 |
| Association | | Evens and Hartman 2007 | Hunt 1977 |
| Association | | Evens and Hartman 2007 | Hunt 1977 |
| Association | | Klein and Evens 2005 | MacMahon 1988 |
| Association | | Keeler-Wolf et al. 1998b | |
| Association | | Kirkpatrick and Hutchinson 1977 | |
| Association | | Keeler-Wolf et al. 1998b | Evens and Hartman 2007, Hunt 1966 |
| Alliance | | Sawyer and Keeler-Wolf 1995 | |
| Association | | Spolsky 1979 | Keeler-Wolf et al. 2005 |
| Association | | Keeler-Wolf and Thomas 2000 | Mac Mahon 1988, Marshall 1995b, Peterson 1984a, 1984b, Phillips and Mac Mahon 1981, Randall 1972, |
| Association | | Keeler-Wolf and Thomas 2000 | Annable 1985, Brown and Minnich 1986, Burk 1997, Davidson and Fox 1974, Keeler-Wolf et al. 2005, [4] Keeler-Wolf |
| Association | | Keeler-Wolf and Thomas 2000 | Evens and Hartman 2007, Holtzman 1994, Hunt 1966, Keeler-Wolf et al. 1998b, Keeler-Wolf et al. 2005, Mac Mahon 1988, Marshall 1995b |
| Association | | Keeler-Wolf and Thomas 2000 | Mac Mahon 1988, Marshall 1995b, Mc Hargue 1973 |
| Association | | Keeler-Wolf et al. 1998b | Keeler-Wolf et al. 2005 |
| Association | | Keeler-Wolf and Thomas 2000 | Mac Mahon 1988, Marshall 1995b, Evens and Hartman 2007, Holtzman 1994, Hunt 1966 Mc Hargue 1973 |
| Association | | Keeler-Wolf and Thomas 2000 | Mac Mahon 1988, Marshall 1995b, Mc Hargue 1973 |
| Association | | Evens and Hartman 2007□ | Holtzman 1994, Hunt 1966 |
| Association | | Keeler-Wolf and Thomas 2000 | Evens and Hartman 2007, Holtzman 1994, Hunt 1966 |
| Association | | Keeler-Wolf et al. 1998b | Keeler-Wolf et al. 2005 |
| Association | | Keeler-Wolf et al. 1998b, Keeler-Wolf et al. 2005, | Keeler-Wolf and Thomas 2000, Keeler-Wolf et al. 2005 |
| Alliance | | Keeler-Wolf et al. 1998b | |
| Association | | Peterson 1984a | Annable 1985, Brooks and Minnich 2006, Burk 1977, Evens and Hartman 2007, Holzman 1994, |
| Association | | Keeler-Wolf et al. 1998b | |
| Association | | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1994,1995b, McAuliffe 1988 |
| Association | | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1994, 1995b, McAuliffe 1988 |
| Association | | Keeler-Wolf and Thomas 2000 | MacMahon 1988, MacMahon and Wagner 1985, McHargue 1973, Paysen et al. 1980 |
| Association | | Keeler-Wolf□ | MacMahon 1988, Marshall 1994, Turner and Brown 1982, Vasek and Barbour 1977 |
| Association | | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1994, 1995b, McAuliffe 1988 |
| Association | | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1994, 1995b, McAuliffe 1988 |
| Provisional Association | | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1994, 1995b, McAuliffe 1988 |
| Association | | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1994, 1995b, McAuliffe 1988 |
| Association | | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1994, 1995b, McAuliffe 1988 |
| Association | | Keeler-Wolf and Thomas 2000 | Keeler-Wolf et al. 2005, MacMahon 1988, Marshall 1994, 1995b, McAuliffe 1988 |
| Association | | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1994, 1995b, McAuliffe 1988 |
| Association | | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1994, 1995b, McAuliffe 1988 |
| Association | | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1994, 1995b, McAuliffe 1988 |
| Provisional Association | | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1994, 1995b, McAuliffe 1988 |
| Association | | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1994, 1995b, McAuliffe 1988 |
| Association | | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1994, 1995b, McAuliffe 1988 |
| Association | | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1994, 1995b, McAuliffe 1988 |
| Association | | Evens and Hartman 2007 | |
| Association | | Keeler-Wolf et al. 1998b | |
| Association | | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1994, 1995b, McAuliffe 1988 |
| Association | | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1994, 1995b, McAuliffe 1988 |
| Association | | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1994, 1995b, McAuliffe 1988 |
| Association | | Keeler-Wolf and Thomas 2000 | Keeler-Wolf et al. 2005, MacMahon 1988, Marshall 1994, 1995b, McAuliffe 1988 |
| Association | | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1994, 1995b, McAuliffe 1988 |
| Association | | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1994, 1995b, McAuliffe 1988 |
| Association | | Evens and Hartman 2007 | |
| Provisional Association | | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1994, 1995b, McAuliffe 1988 |

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| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1994, 1995b, McAuliffe 1988 |
| Association | Keeler-Wolf and Thomas 2000 | Keeler-Wolf et al. 2005, Evens and Hartman 2007, Holzman 1994, Hunt 1966, Keeler-Wolf 2007b, MacMahon 1988, Marshall 1994, |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1994, 1995b, McAuliffe 1988 |
| Association | Keeler-Wolf et al. 1998b | Evens and Hartman 2007, Holzman 1994, Hunt 1966, Keeler-Wolf 2007b |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1994, 1995b, McAuliffe 1988 |
| Association | Keeler-Wolf et al. 1998b | Keeler-Wolf et al. 2005 |
| Association | Evens and Hartman 2007 | Holzman 1994, Hunt 1966, Keeler-Wolf 2007b |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1994, 1995b, McAuliffe 1988 |
| Association | Keeler-Wolf and Thomas 2000 | Evens and Hartman 2007, Holzman 1994, Hunt 1966, Keeler-Wolf 2007b, Keeler-Wolf et al. 2005 |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1994, 1995b, McAuliffe 1988 |
| Association | Keeler-Wolf and Thomas 2000 | Evens and Hartman 2007, Holzman 1994, Hunt 1966, Keeler-Wolf 2007b, Keeler-Wolf et al. 2005 |
| Association | Keeler-Wolf and Thomas 2000 | Evens and Hartman 2007, Holzman 1994, Hunt 1966, Keeler-Wolf 2007b |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1994, 1995b, McAuliffe 1988 |
| Alliance | Keeler-Wolf and Thomas 2000 | Keeler-Wolf et al. 1998b, Thomas et al. 2004, Keeler-Wolf et al. 2005 |
| Association | Keeler-Wolf and Thomas 2000 | Keeler-Wolf et al. 2005, Evens and Hartman 2007, Hunt 1966 |
| Association | Keeler-Wolf and Thomas 2000 | Evens and Hartman 2007, Hunt 1966, Keeler-Wolf et al. 2005, MacMahon 1988, Marshall 1995b, |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1995b, Pase and Brown 1982, Paysen et al. 1980, Reid et al. |
| Association | Keeler-Wolf et al. 2005 | |
| Provisional Association | Keeler-Wolf et al. 1998b | Keeler-Wolf and Thomas 2000, MacMahon 1988, Marshall 1995b, |
| Provisional Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Marshall 1995b, |
| | | |
| Alliance | Burk 1977 | Evens and Hartman 2007, Keeler-Wolf et al. 1998b, Keeler- |
| Association | Keeler-Wolf et al. 2005 | Evens and Hartman 2007, Keeler-Wolf et al. 1998b, Keeler- |
| Alliance | Keeler-Wolf et al. 1998b | Cheatham and Haller 1975, Barry 1989a, b, Brown 1982f, Burk 1977 |
| Association | Keeler-Wolf and Thomas 2000 | Matthews 2000 |
| Association | Keeler-Wolf and Thomas 2000 | Matthews 2000 |
| Association | Keeler-Wolf and Thomas 2000 | Matthews 2000 |
| Association | Keeler-Wolf and Thomas 2000 | Matthews 2000 |
| Association | Keeler-Wolf et al. 2005 | Keeler-Wolf and Thomas 2000, Matthews 2000 |
| Association | Evens and Hartman 2007 | |
| Association | Keeler-Wolf and Thomas 2000 | Matthews 2000 |
| Association | Thorne 1976 | Minnich et al. 1993, Paysen et al. 1980, 1982, Reid et al. 1999, Vasek and Barbour 1977 |
| Provisional Alliance | Thomas et al. 2004 | |
| Alliance | Pavek 1993a | Brown 1994, De Groot 2007, Pavek 1994b |
| Alliance | Keeler-Wolf et al. 1998b | |
| Association | Keeler-Wolf et al. 1998b | Evens and San 2005, Reed 1993b, Tratz 1978, Tratz and Vogl 1977 |
| Provisional Alliance | Gentry 1958 | |
| Provisional Association | Gentry 1958 | |
| Provisional Alliance | Keeler-Wolf et al. 2005 | |
| Alliance | Keeler-Wolf et al. 1998b | Evens and San 2005 |
| Association | Keeler-Wolf and Thomas 2000 | Thomas et al. 2004 |
| Association | Keeler-Wolf et al. 1998b | Evens and San 2005 |
| Association | Keeler-Wolf and Thomas 2000 | Thomas et al. 2004 |
| Association | Keeler-Wolf et al. 1998b | Evens and San 2005, Keeler-Wolf and Thomas 2000 |
| Association | Keeler-Wolf and Thomas 2000 | Thomas et al. 2004 |
| Special Stands | Keeler-Wolf et al. 2005 | Nellessen 2002 |
| Alliance | Keeler-Wolf and Thomas 2000 | Keeler-Wolf et al. 2007 |
| Provisional Association | Keeler-Wolf and Thomas 2000 | Thomas et al. 2004 |
| Provisional Association | Keeler-Wolf and Thomas 2000 | Thomas et al. 2004 |
| Alliance | Keeler-Wolf and Thomas 2000 | |
| Association | Keeler-Wolf and Thomas 2000 | Keeler-Wolf et. Al. 2005 |
| Provisional Association | Keeler-Wolf and Thomas 2000 | Tesky 1994, Thomas et al. 2004 |
| Provisional Association | Keeler-Wolf and Thomas 2000 | Tesky 1994, Thomas et al. 2004 |
| Alliance | Thomas et al. 2004 | |
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| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Paysen et al. 1980, Reid et al. 1999, Simonin 2000, Thomas et al. 2004, |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Paysen et al. 1980, Reid et al. 1999, Simonin 2000, Thomas et al. 2004, |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Paysen et al. 1980, Reid et al. 1999, Simonin 2000, Thomas et al. 2004, |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Paysen et al. 1980, Reid et al. 1999, Simonin 2000, Thomas et al. 2004, |
| Association | Keeler-Wolf and Thomas 2000 | Keeler-Wolf et al. 2005, MacMahon 1988, Paysen et al. 1980, |
| Association | Keeler-Wolf and Thomas 2000 | Keeler-Wolf et al. 2005, MacMahon 1988, Paysen et al. 1980, |
| Association | Keeler-Wolf and Thomas 2000 | Keeler-Wolf et al. 2005, MacMahon 1988, Paysen et al. 1980, Reid et al. 1999, Simonin 2000, Thomas et al. 2004, Thorne 1982, Turner 1982a, |
| Association | Keeler-Wolf et al. 2005 | MacMahon 1988, Paysen et al. 1980, Reid et al. 1999, Simonin 2000, Thomas et al. 2004, |
| Association | Keeler-Wolf et al. 2005 | |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Paysen et al. 1980, Reid et al. 1999, Simonin 2000, Thomas et al. 2004, |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Paysen et al. 1980, Reid et al. 1999, Simonin 2000, Thomas et al. 2004, |
| Association | Keeler-Wolf et al. 2005 | |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Paysen et al. 1980, Reid et al. 1999, Simonin 2000, Thomas et al. 2004, |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Paysen et al. 1980, Reid et al. 1999, Simonin 2000, Thomas et al. 2004, |

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| Association | Keeler-Wolf et al. 2005 | |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Paysen et al. 1980, Reid et al. 1999, Simonin 2000, Thomas et al. 2004, |
| Association | Keeler-Wolf et al. 2005 | |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Paysen et al. 1980, Reid et al. 1999, Simonin 2000, Thomas et al. 2004, |
| Alliance | Thomas et al. 2004 | |
| | | |
| Association | cf. Keeler-Wolf et al. 1998b | Keeler-Wolf and Thomas 2000, Keeler-Wolf et al. 1998b, Minnich et al. 1993, Reid et al. |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Minnich et al. 1993, Reid et al. 1999, Thorne 1982, Tirmenstein 1990b |
| Association | Keeler-Wolf and Thomas 2000 | cf. Keeler-Wolf et al. 1998b, Keeler-Wolf et al. 2005, MacMahon 1988, Minnich et al. 1993, Reid et al. |
| Association | Keeler-Wolf and Thomas 2000 | cf. Keeler-Wolf et al. 1998b, Keeler-Wolf et al. 2005, MacMahon 1988, Minnich et al. 1993, Reid et al 1999, Thorne 1982, Tirmenstein 1990b |
| Association | cf. Keeler-Wolf et al. 1998b | Keeler-Wolf and Thomas 2000, MacMahon 1988, Minnich et al. 1993, Reid et al. 1999, Thorne 1982, Tirmenstein 1990b |
| Association | Keeler-Wolf and Thomas 2000 | cf. Keeler-Wolf et al. 1998b, MacMahon 1988, Minnich et al. 1993, Reid et al. |
| Association | cf. Keeler-Wolf et al. 1998b | |
| Association | Keeler-Wolf and Thomas 2000 | cf. Keeler-Wolf et al. 1998b, Keeler-Wolf et al. 2005, MacMahon 1988, Minnich et al. 1993, Reid et al 1999, Thorne 1982, Tirmenstein 1990b |
| Association | Keeler-Wolf et al. 1998b | Keeler-Wolf et al. 2005, Keeler-Wolf and Thomas 2000, MacMahon 1988, Minnich et al. 1993, Reid et al 1999, Thorne 1982, Tirmenstein 1990b |
| Association | Keeler-Wolf et al. 2005 | |
| Association | Keeler-Wolf and Thomas 2000 | cf. Keeler-Wolf et al. 1998b, Keeler-Wolf et al. 2005, MacMahon 1988, Minnich et al. 1993, Reid et al 1999, Thorne 1982, Tirmenstein 1990b |
| Association | Keeler-Wolf et al. 1998b | Keeler-Wolf et al. 2005, Keeler-Wolf and Thomas 2000, MacMahon 1988, Minnich et al. 1993, Reid et al. |
| Alliance | Keeler-Wolf and Evens 2006 | Johnson and Rodriguez 2001, Junak et al. 2007 |
| Association | Keeler-Wolf and Evens 2006 | Keeler-Wolf and Evens 2006 |
| Association | Keeler-Wolf and Evens 2006 | Keeler-Wolf and Evens 2006 |
| Provisional Alliance | Dunkle 1950 | Corry 2006, Johnson and Rodriguez 2001, Junak et al. 2007 |
| Alliance | Benson and Walkington 1965 | Keeler-Wolf and Evens 2006 |
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| Association | Evens and San 2005 | Johnson 2000b, Jones and Stokes Associates 1993, Junak et al. 2007 |
| Association | Evens and San 2005 | Johnson 2000b, Jones and Stokes Associates 1993, Junak et al. 2007, Keeler-Wolf and Evens 2006, Keeley and Keeley 1988, Magney |
| Special Stands | Burk 1977 | Keeler-Wolf et al. 1998b, MacMahon 1988, Schoenherr and Burk 2007, Thorne 1982, Turner et al. 1995 |

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| Alliance | Cheatham and Haller 1975 | |
| Association | Keeler-Wolf and Thomas 2000 | Evens 2000 |
| Association | Keeler-Wolf and Thomas 2000 | Evens 2000 |
| Association | Keeler-Wolf et al. 1998b | Evens and San 2005, Johnson 1976, Keeler-Wolf 2007 |
| Association | Keeler-Wolf et al. 2005 | Evens and Hartman 2007 |
| Association | Thorne 1976 | Evens 2000, Keeler-Wolf and Thomas 2000, |
| Association | Keeler-Wolf et al. 1998b | |
| Association | Keeler-Wolf and Thomas 2000 | Keeler-Wolf et al. 2005 |
| Association | Keeler-Wolf and Thomas 2000 | Keeler-Wolf et al. 2005 |
| Association | Keeler-Wolf and Thomas 2000 | Evens 2000, MacMahon 1988, Paysen et al. 1980, 1982, Reid et al. 1999, Thorne 1976, 1982, Turner and Brown 1982, |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Paysen et al. 1980, 1982, Reid et al. |
| Association | Wirka and Barbour 1997 | |
| Association | Keeler-Wolf et al. 1998b | |
| Alliance | Keeler-Wolf and Thomas 2000 | Evens 2000 |
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| Association | Keeler-Wolf et al. 2005 | Evens and Hartman 2007 |
| Association | Keeler-Wolf and Thomas 2000 | Evens 2000, McHargue 1973, Thomas et al. |
| Association | Evens et al. 2006 | |
| Association | Evens et al. 2006 | |
| Alliance | Keeler-Wolf and Thomas 2000 | Keeler-Wolf et. Al. 2005 |
| Association | Evens 2000 | Johnson 1976, Keeler-Wolf and Thomas 2000, Vasek and Barbour 1977 |
| Association | Vasek and Barbour 1977 | Keeler-Wolf and Thomas 2000 |
| Association | Vasek and Barbour 1977 | Keeler-Wolf and Thomas 2000 |
| Alliance | Keeler-Wolf and Thomas 2000 | Keeler-Wolf et. Al. 2005 |
| Association | Young et al. 1977 | Taylor 1980, West 1988. |
| Alliance | Barbour and Wirka 1997 | Keeler-Wolf et al. 1998b, Barry 1989a, 1989b |
| Association | cf. Evens et al. 2006 | |
| Association | Klein and Evens 2005 | Magney 1992, Smith 1980, 1996, Wells and Woods 1996 |
| Association | Klein and Evens 2005 | Magney 1992, Smith 1980, 1996, Wells and Woods 1996 |
| Association | Kirkpatrick and Hutchinson 1977 | Barbour and Wirka 1997, Barry 1989a, 1989b |
| Association | Barbour and Wirka 1997 | Barry 1989a, 1989b |
| Association | Barbour and Wirka 1997 | Barry 1989a, 1989, Gordon and White 1994, Klein and Evens 2005, Magney 1992, Smith |
| Association | Klein and Evens 2005 | Magney 1992, Smith 1980, 1996, Wells and Woods 1996. |
| Association | Barbour and Wirka 1997 | Barry 1989a, 1989b |
| Alliance | Keeler-Wolf and Thomas 2000 | |
| Association | Keeler-Wolf et al. 2005 | Keeler-Wolf and Thomas 2000 |
| Association | Keeler-Wolf and Thomas 2000 | Evens 2000, Keeler-Wolf 2007b, Thomas et al. 2004 |
| Association | Evens 2000 | Keeler-Wolf and Thomas 2000, Keeler-Wolf 2007b |
| Association | Evens 2000 | Keeler-Wolf and Thomas 2000, Keeler-Wolf 2007b |

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| Association | Keeler-Wolf and Thomas 2000 | Evens 2000, Keeler-Wolf 2007b, Thomas et al. 2004 |
| Association | Keeler-Wolf and Thomas 2000 | Evens 2000, Keeler-Wolf 2007b, Thomas et al. 2004 |
| Alliance | Keeler-Wolf and Thomas 2000 | |
| Association | Keeler-Wolf and Thomas 2000 | Reid et al. 1999, Peterson 1984a, 1984b, Thomas et al. 2004 |
| Alliance | Keeler-Wolf et al. 1998b | Gentry 1982 |
| Association | Keeler-Wolf et al. 1998b | Turner et al. 1995, Uchytil 1990b. |
| Association | Keeler-Wolf et al. 1998b | Turner et al. 1995, Uchytil 1990b. |
| Special Stands | Shreve and Wiggins 1964 | Turner et al. 1995 |
| Alliance | Evens 2000 | Thomas et al. 2004 |
| Association | Spolsky 1979 | Johnson 1976, Keeler-Wolf et al. 2005, Thorne 1982, Turner and Brown 1982, Uchytil |
| Association | Keeler-Wolf and Thomas 2000 | Evens 2000, Johnson 1976 |
| Association | Keeler-Wolf et al. 1998b | |
| Association | Keeler-Wolf and Thomas 2000 | Evens 2000, Johnson 1976 |
| Association | Keeler-Wolf and Thomas 2000 | Evens 2000, Johnson 1976 |
| Association | Keeler-Wolf and Thomas 2000 | Evens 2000, Johnson 1976 |
| Association | Keeler-Wolf and Thomas 2000 | Evens 2000, Johnson 1976 |
| Association | Keeler-Wolf and Thomas 2000 | Evens 2000, Johnson 1976 |
| Alliance | Keeler-Wolf et al. 1998b | |
| Association | Keeler-Wolf et al. 2005 | Thomas et al. 2004 |
| Association | Keeler-Wolf et al. 1998b | |
| Provisional Alliance | Keeler-Wolf et al. 2005 | |
| Special Stands | Turner et al. 1995 | Schoenherr and Burk 2007 |
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| Alliance | Keeler-Wolf et al. 1998b | Evens and Hartman 2007, Barry 1989a, 1989b, Becker 2008, Brown et al. 1980, |
| Association | Spolsky 1979 | Evens and Hartman 2007, Humberto et al.1999, Thorne 1982, Turner and Brown 1982 |
| Association | Evens and Hartman 2007 | Humberto et al. 1999 |
| Association | Keeler-Wolf et al. 2005 | Evens and Hartman 2007 |
| Association | Evens and Hartman 2007 | |
| Association | Evens and Hartman 2007 | |
| Association | Keeler-Wolf et al. 2005 | |
| Association | Keeler-Wolf et al. 2005 | Evens and Hartman 2007 |
| Association | Evens and Hartman 2007 | |
| Association | Keeler-Wolf et al. 2005 | |
| Association | Evens and Hartman 2007 | |
| Association | Keeler-Wolf et al. 2005 | |
| Association | Spolsky 1979 | |
| Alliance | Barry 1989a | Barry 1989b, Keeler-Wolf 2007b |
| | | |
| Provisional Association | Keeler-Wolf and Thomas 2000 | Paysen et al. 1980, 1982, Schoenherr and Burk 2007, Stillwater Sciences and URS 2007, Thorne 1976 |
| Provisional Association | Keeler-Wolf and Thomas 2000 | Paysen et al. 1980, 1982, Schoenherr and Burk 2007, Stillwater Sciences and URS 2007, Thorne 1976 |
| Provisional Association | Keeler-Wolf and Thomas 2000 | Paysen et al. 1980, 1982, Schoenherr and Burk 2007, Stillwater Sciences and URS 2007, Thorne 1976 |
| Alliance | Thomas et al. 2004 | Evens and San 2005, Klein and Evens 2005 |
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| Association | Keeler-Wolf and Thomas 2000 | |
| Association | Keeler-Wolf et al. 1998b | |
| Association | Klein and Evens 2005 | MacMahon 1988, Martin 1980, Paysen |
| Association | Keeler-Wolf and Thomas 2000 | |
| Association | Keeler-Wolf et al. 1998b | Evens and Hartman 2007 |
| Association | Keeler-Wolf et al. 1998b | |
| Association | Keeler-Wolf et al. 1998b | |
| Association | Keeler-Wolf et al. 1998b | Evens and San 2005 |
| Association | Keeler-Wolf and Thomas 2000 | |
| Alliance | Thomas et al. 2004 | Brown 1982f, Bukart 1976, Hilu et al. 1982, Holland |
| Association | Keeler-Wolf et al. 1998b | MacMahon 1988, Martin 1980, Meyer 2005b, Paysen et al. 1980, Reid |
| Association | Keeler-Wolf et al. 1998b | MacMahon 1988, Martin 1980, Meyer 2005b, Paysen et al. 1980, Reidet al. 1999, Sharf et al. 1982, Vasek and Barbour 1977 |
| Association | Keeler-Wolf et al. 1998b | MacMahon 1988, Martin 1980, Meyer 2005b, Paysen et al. 1980, Reid |
| Alliance | Keeler-Wolf et al. 1998b | Evens 2000, Evens and Hartman 2007, Thomas et al. 2004 and others, see MCII. |
| Association | Spolsky 1979 | Evens and Hartman 2007, Johnson |
| Association | Keeler-Wolf et al. 1998b | Evens and Hartman 2007, Johnson 1976 |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Monzingo1987, Paysen et al. 1980, Sawyer and Keeler-Wolf1995 |
| Association | Keeler-Wolf et al. 2005 | Evens 2000, Evens and Hartman 2007, Johnson 1976, Keeler-Wolf et al. 1998b |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Monzingo1987, Paysen et al. 1980, Sawyer and Keeler-Wolf 1995 |
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| Alliance | Thomas et al. 2004 | |
| Association | Annable 1985 | |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, MacMahon and Wagner 1985, McHargue 1973, Paysen et al. 1980 |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, MacMahon and Wagner 1985, McHargue 1973, Paysen et al. 1980 |
| Provisional Association | Keeler-Wolf and Thomas 2000 | Prigge, 2000, Pers Comm.. MacMahon 1988, MacMahon and Wagner 1985, McHargue 1973, Paysen et al. 1980 |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, MacMahon and Wagner 1985, McHargue 1973, Paysen et al. 1980 |

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| Association | Ferren and Davis 1991 | Keeler-Wolf and Thomas 2000, MacMahon 1988, MacMahon |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, MacMahon and Wagner 1985, McHargue 1973, Paysen et al. 1980 |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, MacMahon and Wagner 1985, McHargue 1973, Paysen et al. 1980 |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, MacMahon and Wagner 1985, McHargue 1973, Paysen et al. 1980 |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, MacMahon and Wagner 1985, McHargue 1973, Paysen et al. 1980 |
| Alliance | Keeler-Wolf et al. 1998a | Thomas et al. 2004 |
| Association | Keeler-Wolf et al. 1998a | Keeler-Wolf et al. 2005, Evens and Hartman 2007, Griggs 1980b, Griggs and Zaninovitch 1984, Howard |
| Association | Peterson 1984a | Peterson 1984b, Reid et al. 1999, Vasek and Barbour 1977, Werschkull et al. 1984. |
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| Alliance | Keeler-Wolf and Thomas 2000 | Esser 1993a |
| Association | Keeler-Wolf and Thomas 2000 | Peterson 1984a, 1984b, Reid et al. |
| Association | Keeler-Wolf and Thomas 2000 | Evens 2000, Peterson 1984a, 1984b, Reid et al. |
| Alliance | Thomas et al. 2004 | Evens et al. 2006 |
| | | |
| Association | Evens, Keeler-Wolf, Klein and Hickson 2005 (central | |
| Association | Young et al.1977 | Ferren and Davis 1991, Paysen et al. 1980, Tirmenstein 1999c, West 1988, |
| Alliance | Keeler-Wolf et al. 1998b | Thomas et al. 2004 |
| Association | Keeler-Wolf et al. 1998b | Keeler-Wolf and Thomas 2000, Thomas et al. 2004, Thorne 1982, Vasek |
| Provisional Alliance | James et al. 1988 | Evens and San 2005, Bonneau 2000, McDaniel et al. 1997, NatureServe 2007a, Tirmenstein |
| Alliance | Evens 2000 | Keeler-Wolf and Thomas 2000 |
| Association | Keeler-Wolf and Thomas 2000 | Evens 2000, Reid et al. 1999, |
| Alliance | Benedict 1982 | Barry 1989a, 1989b, Bauer et al. 2002 |
| Association | Taylor 1984 | Keeler-Wolf et al. 2003b, Major and Taylor 1977, Ratliff 1985, Reynolds and Berlow 2002, West 1988 |
| Association | Benedict 1983 | Berlow et al. 2002 |
| Alliance | | |
| | | |
| Association | Gordon and White 1994 | Johnson 2000a, Klein and Evens 2005, Meyer and Monsen 1992, Paysen et al. 1980, Peterson 1984a, |
| Association | Thomas et al. 2004 | Thorne 1976, Tirmenstein 1999b, Tisdale |
| Association | Thomas et al. 2004 | Thorne 1976, Tirmenstein 1999b, Tisdale |
| Association | Thomas et al. 2004 | Thorne 1976, Tirmenstein 1999b, Tisdale |
| Association | Thomas et al. 2004 | Thorne 1976, Tirmenstein 1999b, Tisdale |
| Association | Thomas et al. 2004 | Thorne 1976, Tirmenstein 1999b, Tisdale |
| Association | Ferren and Davis 1991 | Freeman et al. 1991, Thomas et al. 2004, Thorne 1976, Tirmenstein 1999b, Tisdale |
| Association | Thomas et al. 2004 | Thorne 1976, Tirmenstein 1999b, Tisdale |
| Association | Gordon and White 1994 | Johnson 2000a, Klein and Evens 2005, Meyer and |
| Association | Klein and Evens 2005 | Meyer and Monsen 1992, Paysen et al. 1980 |
| Association | Thomas et al. 2004 | Thorne 1976, Tirmenstein 1999b, Tisdale |
| Association | Taylor 1980 | |
| Association | Taylor 1980 | |
| Alliance | Keeler-Wolf et al. 2003b | NatureServe 2007a, Barry 1989a, b, Cheng 2004, Paysen et al. 1980, Shiflet 1994, Taylor 1976b, |
| | | |
| Association | Cheng 2004 | |
| Association | Young et al. 1977 | Young et al. 2007 |
| Association | Keeler-Wolf and Moore 2001 | |
| Association | Keeler-Wolf□ | Paysen et al. 1980, Shiflet 1994, Taylor |
| Alliance | Keeler-Wolf et al. 2003b | Barry 1989a, 1989b |
| Association | Major and Taylor 1977 | Marchand 1973, Paysen et al. 1980, Travers 1993, |
| Association | Keeler-Wolf and Moore 2001 | |
| Association | S. Smith 1998 | Sawyer and Keeler-Wolf 2007, 1998, Steinberg 2002a |
| Association | Stillman 1980 | Taylor 1976a, Thorne 1976, Tisdale 1994e, |
| Association | Stillman 1980 | Taylor 1976a, Thorne 1976, Tisdale 1994e |
| Association | Stillman 1980 | Taylor 1976a, Thorne 1976, Tisdale 1994e |
| Association | Stillman 1980 | |
| Association | Keeler-Wolf and Moore 2001 | |
| Association | Major and Taylor 1977 | |
| Association | Major and Taylor 1977 | Marchand 1973, Paysen et al. 1980 |
| Association | Major and Taylor 1977 | Marchand 1973, Paysen et al. 1980 |
| Association | Major and Taylor 1977 | |
| Provisional Alliance | Zamora and Tueller 1973 | Barry 1989a, 1989b, Keeler-Wolf 1984d, McArthur |
| Alliance | Thomas et al. 2004 | |
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| Association | Peterson 1984a | Peterson 1984b, Reid et al. 1999, Rickard |
| Association | Keeler-Wolf and Thomas 2000 = Thomas et al.□ | Thorne 1976, Tisdale 1994b, Turner 1982a, West |
| Association | Keeler-Wolf and Thomas 2000 = Thomas et al.□ | Thorne 1976, Tisdale 1994b, Turner 1982a, West 1988, Young et al. 1977, 2007, Zamora and Tueller 1973 |
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| Alliance | Keeler-Wolf and Thomas 2000 | Anderson 2004a, Johnson 1984, Keeler-Wolf 2007b |
| Association | Keeler-Wolf and Thomas 2000 | |
| Association | Keeler-Wolf and Thomas 2000 | |

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| Association | Peterson 1984a, | Reid et al. 1999, Thomas et al. 2004, Yoder et al. 1983. |
| Association | Keeler-Wolf and Thomas 2000 | |
| Association | Keeler-Wolf and Thomas 2000 | |
| Alliance | Thomas et al. 2004 | Anderson 2001e |
| Association | Peterson 1984a | Reid et al. 1999, Thomas et al. 2004, Warren et al. 1982 |
| Alliance | Johnson 1976 | Barry 1989a, 1989b, Beatley 1965, 1975, Blaisdell and Holmgren 1984, Keeler-Wolf 2007b |
| Association | Keeler-Wolf and Thomas 2000 | |
| Association | Kurzius 1981 | Paysen et al. 1980 |
| Association | Keeler-Wolf and Thomas 2000 | |
| Association | Keeler-Wolf and Thomas 2000 | Peterson 1984a, 1984b, Shaw et al. 2002, Shiflet 1994, Thorne 1976, 1982, Tirmenstein 1999c, Webb et al. 1987 |
| Association | Kurzius 1981 | Paysen et al. 1980 |
| Association | Keeler-Wolf and Thomas 2000 | |
| Alliance | Thomas et al. 2004 | Ackerman 1979, Carey 1995a, 1995b, 1995c MacMahon 1988, Reid et al. 1999, Sawyer and Keeler-Wolf 1995 |
| Association | Young et al. 1977 | Thomas et al. 2004, Turner 1982a, West 1988, Young et al. 2007 |
| Alliance | Keeler-Wolf et al. 2005 | |
| Provisional Association | Keeler-Wolf 2007b | |
| Association | Keeler-Wolf et al. 2005 | Keeler-Wolf et. Al. 2005 |
| Provisional Alliance | Keeler-Wolf and Thomas 2000 | Brayton and Mooney 1966, Cogan et al. 2004, Kitchen |
| Association | Thomas et al. 2004 | |
| Alliance | Davis 1994 | Davis 1994b |
| Association | Keeler-Wolf and Keeler-Wolf 1976 | |
| Association | Keeler-Wolf and Thomas 2000 | |
| Association | Keeler-Wolf et al. 2003b | |
| Alliance | Anderson 2001c | Keeler-Wolf et. Al. 2005 |
| | | |
| Association | Spolsky 1979 | Keeler-Wolf and Thomas 2000, Lei 2001a, 2001b, Lei and Walker 1994, 1995, MacMahon |
| Association | Keeler-Wolf and Thomas 2000 | Lei 2001a, 2001b, Lei and Walker 1994, 1995, MacMahon |
| Association | Keeler-Wolf and Thomas 2000 | Lei 2001a, 2001b, Lei and Walker 1994, 1995, MacMahon |
| Association | Keeler-Wolf and Thomas 2000 | Lei 2001a, 2001b, Lei and Walker 1994, 1995, MacMahon |
| Association | Keeler-Wolf and Thomas 2000 | Lei 2001a, 2001b, Lei and Walker 1994, 1995, MacMahon |
| Association | Keeler-Wolf and Thomas 2000 | Lei 2001a, 2001b, Lei and Walker 1994, 1995, MacMahon |
| Provisional Association | Keeler-Wolf and Thomas 2000 | Lei 2001a, 2001b, Lei and Walker 1994, 1995, MacMahon |
| Provisional Association | Keeler-Wolf and Thomas 2000 | Lei 2001a, 2001b, Lei and Walker 1994, 1995, MacMahon |
| Association | Keeler-Wolf and Thomas 2000 | Lei 2001a, 2001b, Lei and Walker 1994, 1995, MacMahon |
| Association | Keeler-Wolf and Thomas 2000 | Lei 2001a, 2001b, Lei and Walker 1994, 1995, MacMahon |
| Association | Keeler-Wolf et al. 1998b | Griffith 1991, Thomas et al. 2004 |
| Association | Keeler-Wolf and Thomas 2000 | Keeler-Wolf et al. 1998b, Reid et al. 1999, Sawyer and Keeler-Wolf 1995, Spolsky 1979, Stone and |
| Association | Keeler-Wolf and Thomas 2000 | |
| Alliance | Keeler-Wolf and Thomas 2000 | |
| Association | Keeler-Wolf and Thomas 2000 | Reid et al. 1999 |
| Alliance | Neal 1994 | Thomas et al. 2004, Keeler-Wolf et al. 2003b, Barry 1989a, 1989b, Brown et al. 1980, Cheatham and |
| Association | Keeler-Wolf et al. 2003b | Neal 1994, Nord 1965, Shiflet 1994, Thorne 1976, Young et al. |
| Association | Keeler-Wolf et al. 2003b | Neal 1994, Nord 1965, Shiflet 1994, Thorne 1976, Young et al. |
| Association | Keeler-Wolf et al. 2003b | Neal 1994, Nord 1965, Shiflet 1994, Thorne 1976, Young et al. |
| Association | Keeler-Wolf et al. 2003b | Neal 1994, Nord 1965, Shiflet 1994, Thorne 1976, Young et al. |
| Association | Keeler-Wolf et al. 2003b | Neal 1994, Nord 1965, Shiflet 1994, Thorne 1976, Young et al. |
| | | |
| Alliance | Thomas et al. 2004 | Evens et al. 2006, Griffin and Booth 1992, Heady 1977 |
| Association | Major and Taylor 1977 | Paysen et al. 1980, Reid et al. 1999, Stoddart et al. 1975 |
| Association | Keeler-Wolf and Thomas 2000 | |
| Alliance | NatureServe 2007a | Daubenmire 1970, Barry 1989a, 1989b, Brown et al. 1980, Chappell et al 1997, Johnson 1987, Shiflet 1994, Stoddart et al. 1975, Thorne 1976, |
| Semi-natural Stands | | |
| Alliance | Thomas et al. 2004 | Keeler-Wolf and Thomas 2000, Pavek 1993c, Reid et al. 1999, Sawyer and Keeler- |
| Association | Keeler-Wolf and Thomas 2000 | Pavek 1993c, Reid et al. 1999, Sawyer and Keeler- |
| Alliance | Thomas et al. 2004 | |
| Association | Keeler-Wolf and Thomas 2000 | Paysen et al. 1980, Reid et al. 1999, Simonin 2000, Thomas et al. 2004, Vasek and Barbour 1977 |
| Association | Keeler-Wolf and Thomas 2000 | Paysen et al. 1980, Reid et al. 1999, Simonin 2000, Thomas et al. 2004, Vasek and Barbour 1977. |
| Association | Keeler-Wolf and Thomas 2000 | Paysen et al. 1980, Reid et al. 1999, Simonin 2000, Thomas et al. 2004, Vasek and Barbour 1977 |
| Alliance | SAMO | |
| Association | Cooper and Wolf 2006 | Sawyer and Keeler-Wolf 2007 |
| Alliance | Keeler-Wolf and Moore 2001 | Potter 2003 |
| Provisional Association | Taylor 1984 | |
| Association | Taylor 1984 | Potter 2005, Sawyer and Keeler-Wolf 2007, Viereck et al. 1992. |
| Association | Keeler-Wolf et al. 2003b | Ladyman 2002, Major and Taylor 1977, Pemble 1970 |
| Provisional Alliance | Sawyer and Keeler-Wolf 2007 | |

| | | | |
|---|---|---|---|
| Alliance | | Ratliff 1982 | Ratliff 1985 |
| Association | | Sumner 1941 | Benedict 1983, Fites-Kaufman et al. 2007, Keeler-Wolf et al. 2003b, Klikoff 1965, Major and Taylor 1977, Ratliff 1982, Ratliff 1985, Sawyer and |
| Association | | Benedict 1983 | Fites-Kaufman et al. 2007, Ratliff 1985, Sawyer and Keeler-Wolf 2007, Sumner 1941 |
| Association | | Benedict 1983 | Fites-Kaufman et al. 2007, Keeler-Wolf et al. 2003b, Klikoff 1965, Major and Taylor 1977, Ratliff 1982, Ratliff 1985, Sawyer and Keeler-Wolf 2007, |
| Association | | Klikoff 1965 | Major and Taylor 1977, Ratliff 1982, Keeler-Wolf et al. 2003b, Taylor 1984. |
| Alliance | | Keeler-Wolf et al. 2003b | Klyver 1931 |
| Association | | Taylor 1984 | Keeler-Wolf et al. 2003b, Klyer 1931 |
| Association | | Pemble 1970 | Sawyer and Keeler-Wolf 2007 |
| Association | | Major and Taylor 1977 | |
| Alliance | | Keeler-Wolf et al. 2003b | |
| Association | | Major and Taylor 1977 | Taylor 1984 |
| Association | | Potter 2005 | Ratliff 1979, 1982, 1985 |
| Association | | Burke 1982 | Hauser 2006b, Keeler-Wolf et al. |
| Association | | Burke 1982 | |
| Association | | Burke 1982 | Hauser 2006b |
| Association | | Keeler-Wolf et al. 2003b | Klikoff 1965, Major and Taylor 1977, Paysen |
| Association | | Taylor 1984 | Ratliff 1979, 1982, 1985, Potter 2005 |
| Association | | Benedict 1983 | |
| Alliance | | Burke 1982 | NatureServe 2007 |
| Association | | Burke 1982 | Sawyer and Keeler-Wolf 2007 |
| Association | | Burke 1982 | Sawyer and Keeler-Wolf 2007 |
| Provisional Alliance | | Cheng 2004 | Cooper and Wolf 2006, Potter 2005, Sawyer and Keeler-Wolf 2007 |
| Alliance | | Keeler-Wolf et al. 2003b | |
| Association | | Major and Taylor 1977 | cf. Benedict 1983 |
| Association | | Keeler-Wolf et al. 2003b | |
| Association | | | |
| Association | | Potter 2005 | |
| Alliance | | Keeler-Wolf et al. 2003b | |
| Association | | Taylor 1984 | Keeler-Wolf et al. 2003b |
| Association | | cf. Pemble 1970 | Rundel et al. 2005, Sawyer and Keeler-Wolf 2007 |
| Alliance | | Keeler-Wolf and Moore 2001 | |
| Association | | Taylor 1984 | Keeler-Wolf et al. 2003b, Sawyer and Keeler-Wolf 2007 |
| Association | | Taylor 1984 | Keeler-Wolf et al. 2003b, Sawyer and Keeler-Wolf |
| Provisional Alliance | | Franklin and Dyrness 1973 | Douglas and Bliss 1977, Sawyer and Keeler-Wolf 2007 |
| Provisional Alliance | Sparsely Vegetated | Klein and Evens 2006 | |
| Provisional Association | | Taylor 1984 | |
| Provisional Association | | Taylor 1984 | |
| Provisional Alliance | | Keeler-Wolf and Moore 2001 | |
| Alliance | | Keeler-Wolf and Moore 2001 | |
| Association | | Taylor 1984 | Tesky 1992b |
| Association | | Taylor 1984 | Tesky 1992b |
| Association | | Major and Taylor 1977 | |
| Provisional Alliance | | Taylor 1984 | Cheng 2004, Keeler-Wolf and Moore 2001,Sawyer and Keeler-Wolf 2007 |
| Provisional Association | | Taylor 1984 | |
| Alliance | | Keeler-Wolf et al. 2003b | |
| Association | | Major and Taylor 1977 | |
| Association | | Taylor 1984 | Keeler-Wolf et al. 2003b |
| Association | | Sawyer and Keeler-Wolf 2007 | |
| Association | | Pemble 1970 | Taylor 1984, Keeler-Wolf et al 2003b |
| Association | | Pemble 1970 | |
| Provisional Alliance | | Taylor 1984 | Amen 1966, Caldwell et al 1982, Cheng 2004, Humlum 1981, Mooney and Billings 1960, 1961, Russell 1948, Sawyer and Keeler-Wolf 2007, |
| Association | | Taylor 1984 | |
| Alliance | | Taylor 1984 | Cheng 2004 |
| Association | | Pemble 1970 | Sawyer and Keeler-Wolf 2007 |
| Association | | Taylor 1984 | |
| Association | | Major and Taylor 1977 | |
| Association | | Keeler-Wolf et al. 2003b | Taylor 1984 |
| Association | | Keeler-Wolf et al. 2003b | |
| Association | | Taylor and Major 1977 | |
| Association | | Taylor 1984 | |
| Association | | Taylor 1967a | |
| Association | | Major and Taylor 1977 | |
| Association | | Major and Taylor 1977 | |

| | | |
|---|---|---|
| Association | Major and Taylor 1977 | Taylor 1984 |
| Alliance | Major and Taylor 1977 | |
| Association | Major and Taylor 1977 | Sawyer and Keeler-Wolf 2007 |
| Association | Major and Taylor 1977 | Sawyer and Keeler-Wolf 2007 |
| Association | Major and Taylor 1977 | Sawyer and Keeler-Wolf 2007 |
| Association | Major and Taylor 1977 | Sawyer and Keeler-Wolf 2007 |
| Association | Major and Taylor 1977 | Sawyer and Keeler-Wolf 2007 |
| Alliance | Odion et al. 1992a | Mason 1957, Ferren 1989a, Grewell et al. 2007, Thorne 1982 |
| Association | Parish 1930 | Odion et al. 1992a, Thorne 1982 |
| Alliance | Keeler-Wolfand Vaghti 2000 | Baye et al. 2000, Holstein 2000, Pickart 2006, Hickson and Keeler-Wolf 2007 |
| Association | Holstein 2000 | |
| Association | | |
| Alliance | Pickart 2006 | |
| Association | Pickart 2006 | |
| Provisional Association | Pickart 2006 | |
| Provisional Alliance | Mason 1957 | Taylor et al. 1993 |
| Provisional Alliance | Mason 1957 | Wennerberg 2004 |
| Alliance | Keeler-Wolf et al. 2003b | Cheatham and Haller 1975, Anderson 2003b, Barry 1989a, 1989b, Mason 1957 |
| Association | Mason 1957 | Keeler-Wolf et al. 2003b |
| Provisional Alliance | Mason 1957 | Clark 1980, Hickson and Keeler-Wolf 2007, Lumpkin |
| Provisional Alliance | Mason 1957 | Armstrong 1982, Armstrong and Thorne 1984, Barry 1989a, b, Cheatham and Haller 1975, DiTomaso and |
| Provisional Semi-natural Stands | Sears et al. 2005 | Sears et al. 2006, Hickson and Keeler-Wolf 2007 |
| Provisional Alliance | NatureServe 2007b | |
| Alliance | Evens and San 2005 | NatureServe 2007a |
| Association | Evens and San 2005 | Keeler-Wolf and Evens 2006, NatureServe 2007b. |

| | | |
|---|---|---|
| Alliance | Henry 1979 | Thomas et al. 2004, Keeler-Wolf 2007 |
| Association | Vasek and Barbour 1977 | cf. Pavlik 1980, Paysen et al. 1980, Schoenherr and Burk 2007, Thorne 1982 |
| Alliance | Thomas et al. 2004 | Henry 1979, Paysen et al. 1980 |
| Association | Thorne 1982 | Thomas et al. 2004, Vasek and Barbour 1988 |
| Special Stands | Henry 1979 | Keeler-Wolf and Thomas 2000, Pavlik 1980, Pavlik and Barbour 1988, USFWS ~2007 |
| Alliance | Thomas et al. 2004 | Keeler-Wolf and Thomas 2000, MacMahon 1988, Paysen et al. 1980, Reid et al. |
| Association | Annable 1985 | Evens and Hartman 2007, Hunt 1966, Johnson 1976, |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Paysen et al. 1980, Reid et al. 1999, Schramm 1982, Thomas et al. 2004, Thorne |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Paysen et al. 1980, Reid et al. |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Paysen et al. 1980, Reid et al. |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Paysen et al. 1980, Reid et al. |
| Association | Keeler-Wolf and Thomas 2000 | MacMahon 1988, Paysen et al. 1980, Reid et al. |
| Provisional Alliance | Thomas et al. 2004 | Beatley 1976, Root 1978 |

# Scoping Meeting for the Draft EIR for the Cannabis Environmental Impact Report

## SIGN IN SHEET

May 12th, 2017

*(Please sign in before the meeting)*

| Name | Organization | Address | Phone / Email |
|---|---|---|---|
| MARK WHEELER | City of Fortuna | | 707.725.1410 |
| Martha Spencer | | | 768-3056 martspnce@aol.com |
| Eric Nelson | | | " |
| Joe Long | City of Fortuna | | |
| Tami Trent | City of Fortuna | | |
| Natalynne Delapp | HCGA | Natalynne@HCGA.CO | |
| Cory Fitze | | | 498-7955 |
| Trisha Mechetti | AgDynamX | 732 5th St. Suite J, Eureka, CA, 95501 | 798-6991 |
| Dennis Commack | Sensi Valley Farms | | |

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## SIGN IN SHEET

**May 12th, 2017**

***(Please sign in before the meeting)***

| Name | Organization | Address | Phone / Email |
|---|---|---|---|
| Donald Fregeau Jr | | 3653 Loop Rd Fortuna CA 95540 | 7077254174 donaldv[illegible] |
| Clark Ross | | 60 Pampas Lane Fortuna | yaloo.com |
| Dave Bois | Ag Dynamix | 732 5th St Eureka | 798-6199 daveb@agdynamix.com |
| Chad Pregger | Whitchurch Eng | C/O 9th St. | 725-6526 |
| Michelle Voyles | Azalea Realty/Mad River | 2500 Dragnet Pl Mck. | 707-845-1609 |
| Christy Allman | Business Source | 985 Hilltop Dr Ftna CA | |
| Elan Reno | Business Source | 1100 D02 Main St Ftna CA) | |
| Tim MEADE | | 4100 NOB HILL FORTUNA | 725-2011 [illegible] |
| TOM Wheeler | EPIC | 145 G St, Ste A Arcata, 75521 | 707 822 7711 Tom@wildcal[illegible] |
| Kim Bynum | Atlas Engineering | 252 6 St. Arcata, 95521 | Kim@atlaseng.net |
| Gordon Grigsweld | | | ggrigsweld@comcast.net |
| JESSIKA CHAPMAN | MIKKIMOVES REAL ESTATE | JESSIKACHAPMAN@MIKKIMOVES.COM) | |
| Rebecca Manion | California Native Plant Society | | rmanion136@gmail.com |
| Shaelawn MAISEN | | 2095 Mad River Rd. ARCATA, CA | Shaelawn@aol.com 707-498-1695 |
| Scott Bauer | CDFW | 619 2nd St. Eureka 01 | scott.bauer@wild[illegible] |
| Tyler Martin | Omsberg + Preston | | tmartin@omsberg.com |
| Richie Jones | MikkiMoves | 3903 Upper Bay Rd. Arcata | 707.572.0683 |
| Deb Fonsen | | 2900 Rock Springs Rd Hydesville | (707)768-3365 |
| Greg Williston | SHN | 812 W. WABASH, Eureka | 707 441-8855 |

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## SIGN IN SHEET

May 12th, 2017

*(Please sign in before the meeting)*

| Name | Organization | Address | Phone / Email |
|---|---|---|---|
| Judith Mayer | HSU | 2040 Panorama Ct. Arcata CA 95521 | judith.mayer@humboldt.edu |
| Ana Carter | TRC | 1463 Anderson Ave Mckinleyville | atr51@humboldt.edu |
| Bill Thorington | NHA | 501 Mayala Fortuna. CA | tcgroup@Sudelenlink.net |
| Terra Carver | HCGA | 600 F Street Suite 3#125 Arcata, CA | terra@hcga.co |
| Dennis & Tami Fitze | | P.O. Box 718 Hydesville, CA 95547 | Sharlock storage@ao |
| Bonnie Blackburn | CUNT | Box 644 Redway CA 95560 | bonnie@quillberries |
| Kenny Richards | Northern Hum UHSD | 2755 McKinleyville Ave., McKinleyville | krichards@nohum.k12.ca.us |
| Joan and Randy Bennett | | 4757 Hill Rd Fortuna | 7252330 |
| Janet DePace | | 520 E ST Eureka 95501 | jdepace3@cs.com |
| Sandy Dale | | 100 Pampas Ln. Fortuna CA 95540 | sdale@fuhsdistrict.net |
| Sensi Valley Farms | | 517 Third St #39 Eureka | |
| Kim Preston | Ansberg & Preston | 434 7th St. Eureka | Kpreston@ansberg.com |
| Mike Rosenzweig | Uof Chicago | 4550 38th Ave. SW, Seattle, WA | bigwavemikey@gmail.com |
| Jim Meserve | FORTUNA, | | |
| Suzanne Maese | Margro Advisors | 2306 Albee Str. Eureka | info@margroadvisors.com |

# Scoping Meeting for the Draft EIR for the Cannabis Environmental Impact Report

## SIGN IN SHEET

**May 12th, 2017**

***(Please sign in before the meeting)***

| Name | Organization | Address | Phone / Email |
|---|---|---|---|
| Liz Harwood | PlumNuts Farm | 705 JACKSHAW Rd Kneeland | 442-5084 |
| Richard Amerson | Lazy S Farm | 2557 Blue Rock Rd Benbow | richardterryamerson@gmail |
| Nancy & Dakota Ringo | | PO Box 238 Blocksburg CA 95514 | |
| KURT McCRAY | CAL FIRE | 118 S. FORTUNA BLVD FORTUNA | 726-1253 |
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| STEVE CHRISTIAN | | | MRSTREESTEVE@YAHOO.COM |
| MARC WOODS | FARM FAMILY EXPEDITING | BOX 555 TRINIDAD, CA. 95570 | farmfamx@gmail.com |
| Andrew Nash | | Petrolia | anash66@gmail.com |
| Laura Cooskey | — | Petrolia | lauracooskey@frontiernet.net |
| ERIN DUNN | Fortuna Chamber | Fortuna | erin@fortunachamber.com |
| Jon Snyder | Transcon Environmental | Ferndale | jsnyder@transcon.com |
| Bobby Filippini | Victoria Ranch HOA | Hydesville | efilippmi@ymail.com |
| Peter Childs | | | pcc@easis.com |
| Lelchina DuBois | Humboldt Grace | PO Box 896 BL | lele@humboldtgrace.org |
| Cheri Sanville | CDFW | 619 2nd St Eka | cheri.sanville@wildlife.ca.gov |
| Kaiya Tuttle | Yurok Tribe Environmental Department | | ktuttle@yuroktribe.nsn.us |
| Wally Brazil | | Fortuna | |
| Paul Hagen | Law Office | 922 6th St, Ste. 7, Arcata, CA | paul@northcoastlegal.com |

May 12, 2017

## Humboldt County

## Proposed Amendments to Humboldt County Code Regulating Commercial Cannabis Activities

## Scoping Meeting Comment Sheet

Written comments may be submitted today or subsequently mailed or e-mailed to the contact information below by May 17, 2017. Please indicate a contact person in your response and send your comments to:

slazar@co.humboldt.ca.us; or

Steve Lazar
Humboldt County Planning & Building Department
3015 H Street
Eureka, CA 95501

Name: Jack Henry

Organization: Timberland Resource Consultants

Mailing Address:

Email:

Comment:

Please take care to do a full EIR that is not rushed and easily challenged. I support cultivation and think its a disservice to the growers if the EIR is lacking.

May 12, 2017

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Steve Lazar
Humboldt County Planning & Building Department
3015 H Street
Eureka, CA 95501

Name: Paul Hagen

Organization: North Coast Envil Law Office

Mailing Address: 822 "G" St., Ste. 7, Arcata, CA 95521

Email: ~~pat~~ ~~pat~~ paul@northcoastelaw.com

Comment: 1) Permitting existing TPZ-related cultivation, and reconstructing of existing footprints to maximize ~~env~~ relocation envil remediation & regeneration as well as operational efficiencies.

~~Proj~~ Mitigation requirements should include flexibility in the face of ill-constructed site layouts

2) Prime Soils: All Cannabis cultivation so situated should be essentially co-equal with other, similar agriculture and cultivation.

(Over →)

This would move the analysis foundation ~~to the~~ from one segment of agriculture to the more realistic all-around view of agriculture in the region.

- Definition of "prime soils" needs to be carefully done.

The ordinance specifies the 1965 study and then provides a nebulous alternative.

May 12, 2017

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Steve Lazar
Humboldt County Planning & Building Department
3015 H Street
Eureka, CA 95501

Name: Cheri Sanville

Organization: CDFW

Mailing Address: 619 2nd St Eureka

Email: cheri.sanville@wildlife.ca.gov

Comment:

We are also concerned about potential adverse impacts to botanical resources. This topic was not brought up in the comment letter the department submitted. Of particular concern are additional pressures on grasslands and woodlands, particularly as ~~timberland conversion~~ prohibitions on timberland conversion become more strict. Grasslands and woodlands are rich with rare plants and provide important wildlife resources and should not be seen as a suitable alternative to conversion of timberlands

We would also recommend full floristic botanical surveys be conducted prior to any ground disturbing activities. Our department

↳ ~~surface~~ such as cultivation sites, H20 storage, roads, rock sources, building sites, etc

has a botanical scoping and survey protocol that project proponents should be directed to follow.
Wetland delineations should also be conducted to ensure adequate setbacks and to maintain hydrological connectivity

May 12, 2017

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slazar@co.humboldt.ca.us; or

Steve Lazar
Humboldt County Planning & Building Department
3015 H Street
Eureka, CA 95501

Name: ERIN DUNN

Organization:

Mailing Address: 750 14th Street Fortuna CA 95540

Email: erin@fortunachamber.com

Comment:

- WATER
  STRICT regulation of water use
- SET BACKS
  Fortuna has surrounding County land throughout the Sphere of Influence/City line.
  We need MAJOR set backs and regulations for properties that border Fortuna

PLEASE

May 12, 2017

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slazar@co.humboldt.ca.us; or

Steve Lazar
Humboldt County Planning & Building Department
3015 H Street
Eureka, CA 95501

Name: Laura Cooskey

Organization:

Mailing Address: 544 Green Fir Rd., Petrolia, CA 95558

Email: lauracooskey@frontiernet.net

Comment:

Reflecting on one speaker's comments here today that mitigation measures for grows in close interface with residential communities will be quite different from those for grows out in the hills... yes, the mitigations will be different, but in any case the burden of mitigation might be harder, or require more energy, than the grow could be worth.

In other words, I believe commercial, large-scale (more than the six plants allowed by Prop. 64) grows should not be on or near residential or timber zones, but should be in industrial zones - the same sorts of zones that would allow & closely regulate industries such as plastics production or petroleum refineries.

See my email of 5/9/17 for my full argument in this vein.

Another point, perhaps aside from what the scope of the EIR should be, is that without greatly increased OBSERVATION AND ENFORCEMENT, these laws will mean nothing, as they now seem to.

Basically, Bonnie Blackberry said everything else I'd like to say.

Thank you,
Laura Cooskey

May 12, 2017

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slazar@co.humboldt.ca.us; or

Steve Lazar
Humboldt County Planning & Building Department
3015 H Street
Eureka, CA 95501

Name: Andrew Nash

Organization:

Mailing Address: Petrolia California

Email: anash66@gmail.com

Comment:

I have seen major impacts on the environment. I have worked and lived in Southern Humboldt and Petrolia. Over the last several years what has gone from moderate amount of grows and impact has now gone to heavy impact on roads, water, community, forestry, biodiversity, light and sound pollution.

I am particularly concerned about impacts to neighbors (ie visual, noise & light pollution) And to the impact on roads from many heavy trucks and increased traffic. I am also observing unauthorized forest clearing and fragmentation from new grows.

Impacts on roads and runoffs to creeks in my opinion is quite heavy

# Appendix B

## Air Quality and Greenhouse Gas Emissions Modeling Results

## EMFAC Output

| calendar_y | season_mc | sub_area | vehicle_cla | fuel | VMT | g/mi ROG | g/mi NOx | g/mi PM10 | g/mi PM2.5 | g/mi CO2 | g/mi CH4 | fuel |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2018 | Annual | Humboldt ( | LDA | Gas | 1480522 | 0.327033 | 0.311988 | 0.077032 | 0.032648 | 498.393 | 0.025878 | 53.61604 |
| 2018 | Annual | Humboldt ( | LDA | Dsl | 21911.26 | 0.001541 | 0.014339 | 0.002108 | 0.001411 | 7.248063 | 7.16E-05 | 0.652326 |
| 2018 | Annual | Humboldt ( | LDA | Elec | 16616.32 | 1.49E-05 | | 0.00082 | 0.000325 | 84.34557 | | |
| 2018 | Annual | Humboldt ( | LDT1 | Gas | 204709.8 | 0.241803 | 0.181375 | 0.011644 | 0.005429 | 84.34557 | 0.015852 | 9.301107 |
| 2018 | Annual | Humboldt ( | LDT1 | Dsl | 405.8477 | 0.000127 | 0.000693 | 0.000123 | 0.000106 | 0.179235 | 5.88E-06 | 0.016131 |
| 2018 | Annual | Humboldt ( | LDT1 | Elec | 293.8259 | 4.14E-07 | | 1.45E-05 | 5.75E-06 | | | |
| 2018 | Annual | Humboldt ( | LDT2 | Gas | 696867.4 | 0.301456 | 0.335942 | 0.0364 | 0.015498 | 324.0993 | 0.020145 | 34.92573 |
| 2018 | Annual | Humboldt ( | LDT2 | Dsl | 889.897 | 2.69E-05 | 8.63E-05 | 5.88E-05 | 3.17E-05 | 0.353669 | 1.25E-06 | 0.03183 |
| | | | LDA | | | 0.318761 | 0.304281 | 0.075118 | 0.031844 | 486.7794 | 0.025223 | |
| | | | LDT1 | | | 0.24098 | 0.180759 | 0.011605 | 0.005411 | 84.05862 | 0.015798 | |
| | | | LDT2 | | | 0.301072 | 0.335514 | 0.036354 | 0.015478 | 323.6864 | 0.020119 | |

## Key Parameters from Project Description

## Key Parameters Used in CalEEMod Modeling

### Project Characteristics

## Key Parameters

### Land Use

### Construction Parameters

Construction Phase (days)

| Site Type and CalEEMod File Name | Number of Current License Applications as of 2016 | Percent of All Cultivation/Non-Cultivation Sites (%) | Canopy Area Restriction Per License (sq ft) | Max. Canopy Area (sq ft) | Building/shed floor area needed for non-cultivation (sq ft) | Outdoor area needed for water storage pond or tank (sq ft) | CalEEMod File Name | Project Name | Project Characteristics -Remarks | Parking Lot Size (spaces) | Parking Surface Type | Parking Area (sq ft) | Floor area of indoor uses (1,000 sq ft) | Disturbance Area during Constructin (acre) | Land Use - Remarks | Site Prep | Grading | Build Constr | Arch Coat | Paving | Site Prep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Cultivation Sites** | | | | | | | | | | | | | | | | | | | | | |
| 1-Outdoor | 61 | 9.1% | up to 5,000 | 5,000 | 500 | 750 | 1-Outdoor | 1-Outdoor up to 5,000 sq ft canop | 1-Outdoor grow site with 5000 sq ft canopy area, 500 sq ft non-cultivation indoor space, 750 sq | 0 | N/A | 0 | 0.50 | 0.14 | Total indoor floor area is 500 sq ft | 1 | 3 | 10 | 3 | 0 | 0 Grader, |
| 2-Outdoor | 161 | 24.0% | 5,001-10,000 | 10,000 | 1,000 | 1,500 | 2-Outdoor | 2-Outdoor 5,001-10,000 sq ft canc | 2-Outdoor grow site with 10000 sq ft canopy area, 1000 sq ft non-cultivation indoor space, 1500 | 0 | N/A | 0 | 1.00 | 0.29 | Total indoor floor area is 1000 sq ft | 2 | 6 | 20 | 6 | 0 | 0 Grader, |
| 3-Outdoor | 147 | 21.9% | 10,001-44,000 | 44,000 | 1,800 | 6,600 | 3-Outdoor | 3-Outdoor 10,001-44,000 sq ft car | 3-Outdoor grow site with 44000 sq ft canopy area, 1800 sq ft non-cultivation indoor space, 6600 | 0 | N/A | 0 | 1.80 | 1.20 | Total indoor floor area is 1800 sq ft | 4 | 12 | 40 | 12 | 0 | 0 Grader, |
| 1B-Mixed Light | 25 | 3.7% | up to 5,000 | 5,000 | 500 | 750 | 1B-Mixed Light | 1B-Mixed Light up to 5,000 sq ft c | 1B-Mixed Light grow site with 5000 sq ft canopy area, 500 sq ft non-cultivation indoor space, 75 | 0 | N/A | 0 | 0.50 | 0.14 | Total indoor floor area is 500 sq ft | 1 | 3 | 10 | 3 | 0 | 0 Grader, |
| 2B-Mixed Light | 123 | 18.3% | 5,001-10,000 | 10,000 | 1,000 | 1,500 | 2B-Mixed Light | 2B-Mixed Light 5,001-10,000 sq ft | 2B-Mixed Light grow site with 10000 sq ft canopy area, 1000 sq ft non-cultivation indoor space, | 0 | N/A | 0 | 1.00 | 0.29 | Total indoor floor area is 1000 sq ft | 2 | 6 | 20 | 6 | 0 | 0 Grader, |
| 3B-Mixed Light | 76 | 11.3% | 10,001-22,000 | 22,000 | 1,400 | 3,300 | 3B-Mixed Light | 3B-Mixed Light 10,001-22,000 sq f | 3B-Mixed Light grow site with 22000 sq ft canopy area, 1400 sq ft non-cultivation indoor space, | 0 | N/A | 0 | 1.40 | 0.61 | Total indoor floor area is 1400 sq ft | 3 | 9 | 30 | 9 | 0 | 0 Grader, |
| 1A-Indoor | 31 | 4.6% | up to 5,000 | 5,000 | 500 | 750 | 1A-Indoor | 1A-Indoor up to 5,000 sq ft canop | 1A-Indoor grow site with 5000 sq ft canopy area, 500 sq ft non-cultivation indoor space, 750 sq f | 8 | Paved | 3,200 | 5.50 | 0.22 | Total indoor floor area is 500 sq ft | 1 | 3 | 30 | 6 | default | 0 Grader, |
| 2A-Indoor | 17 | 2.5% | 5,001-10,000 | 10,000 | 1,000 | 1,500 | 2A-Indoor | 2A-Indoor 5,001-10,000 sq ft canc | 2A-Indoor grow site with 10000 sq ft canopy area, 1000 sq ft non-cultivation indoor space, 1500 | 16 | Paved | 6,400 | 11.00 | 0.43 | Total indoor floor area is 1000 sq ft | 2 | 6 | 60 | 12 | default | 0 Grader, |
| 3A-Indoor | 30 | 4.5% | 10,001-22,000 | 22,000 | 1,400 | 3,300 | 3A-Indoor | 3A-Indoor 10,001-22,000 sq ft can | 3A-Indoor grow site with 22000 sq ft canopy area, 1400 sq ft non-cultivation indoor space, 3300 | 24 | Paved | 9,600 | 23.40 | 0.83 | Total indoor floor area is 1400 sq ft | 3 | 9 | 100 | 24 | default | 0 Grader, |
| 1C-Specialty Cottage | N/A | N/A | Up to 2,500 (mi | 2,500 | 250 | 375 | 1C-Specialty Cottage | 1C-Specialty Cottage Up to 2,500 ( | 1C-Specialty Cottage grow site with 2500 sq ft canopy area, 250 sq ft non-cultivation indoor spac | 8 | Paved | 3,200 | 0.25 | 0.15 | Total indoor floor area is 250 sq ft | 1 | 2 | 10 | 2 | default | 0 Grader, |
| Total | 671 | 100% | | | | | | | | | | | | | | | | | | | |
| **Non-Cultivation Facilities** | | | | | | | | | | | | | | | | | | | | | |
| 4-Nursery (wholesale) | 78 | 29.0% | N/A | N/A | 10,000 | N/A | 4-Nursery (wholesale | Non-Cultivation Facilities | Wholesale nurseries would be indoor. This run is to estimate construction emissions and non-m | 12 | Paved | 4,800 | 10.00 | 0.34 | This run is to estimate construction emissions and non-mobile-source operational emissions from all Non-Cultivation Facilities, incl 4-Nursery (wholesale), Manufactuer-1 and-2, 8-Testing Lab, 10-Dispensary, 10A-Produc Disp, 11-Distributor, 12-Transp | 1 | 2 | 100 | 5 | 5 | Use CalE values (# no ove Prep, Gr |
| 6-Manufacturer 1 | 57 | 21.2% | N/A | 0 | 10,000 | 0 | 6 & 7-Manufacturer | | This run is to estimate construction emissions and non-mobile-source operational emissions. | 12 | Paved | 4,800 | 10.00 | 0.34 | | 1 | 2 | 100 | 5 | 5 | |
| 7-Manufacturer 2 | 43 | 16.0% | N/A | 0 | 10,000 | 0 | 1 & 2 | | CO2 factor from PG&E 2015:3 | 12 | Paved | 4,800 | 10.00 | 0.34 | | 1 | 2 | 100 | 5 | 5 | |
| 8-Testing Laboratory | 4 | 1.5% | N/A | 0 | 10,000 | 0 | 8-Testing Laboratory | | This run is to estimate construction emissions and non-mobile-source operational emissions. CO | 12 | Paved | 4,800 | 10.00 | 0.34 | | 1 | 2 | 100 | 5 | 5 | |
| 10-Dispensary | 20 | 7.4% | N/A | 0 | 10,000 | 0 | 10 & 10A-Dispensary & Producing | | This run is to estimate construction emissions and non-mobile-source operational emissions. CO | 12 | Paved | 4,800 | 10.00 | 0.34 | | 1 | 2 | 100 | 5 | 5 | |
| 10A-Producing Dispensary | 4 | 1.5% | N/A | 0 | 10,000 | 0 | | | This run is to estimate construction emissions and non-mobile-source operational emissions. CO | 12 | Paved | 4,800 | 10.00 | 0.34 | | 1 | 2 | 100 | 5 | 5 | |
| 11-Distributor | 44 | 16.4% | N/A | 0 | 10,000 | 0 | 11-Distributor | | This run is to estimate construction emissions and non-mobile-source operational emissions. CO | 12 | Paved | 4,800 | 10.00 | 0.34 | | 1 | 2 | 100 | 5 | 5 | |
| 12-Transport | 2 | 0.7% | N/A | 0 | 10,000 | 0 | 12-Transport | | This run is to estimate construction emissions and non-mobile-source operational emissions. CO | 12 | Paved | 4,800 | 10.00 | 0.34 | | 1 | 2 | 100 | 5 | 5 | |
| Processing "microbusiness"? | 17 | 6.3% | N/A | 0 | 10,000 | 0 | Processing | | This run is to estimate construction emissions and non-mobile-source operational emissions. CO | 12 | Paved | 4,800 | 10.00 | 0.34 | | 1 | 2 | 100 | 5 | 5 | |
| Total | 269 | 100% | | | | | | | | | | | | | | | | | | | |
| Sources: | PD Table 2-2 | | PD Table 2-1 | PD Table 2-1 | Note 2 | Note 3 | | PD Table 2-1, concatenation | concatenation | Note 14 | Note 14 | Note 15 | sum, Note 4 | Note 5 | concatenation | Note 6 | | | | | |
| Applicable CalEEMod Module/Tab/Fied: | N/A | | N/A | N/A | N/A | N/A | File Name | Project Characteristics/Project Name | Project Characteristics/Remarks | Land Use Type/Subtype | Land Use Type/Subtype | | Land Use/Unit Amount | sum of values in Land Use/Lot Acreage | Land Use/Remarks | Construction Phases | | | | | Constru |

Notes

1 75% It is conservatively assumed that the average size of the grow area of each type of cultivation site would be approx. 75% of the maximum permitted area.
2 It is assumed that outdoor grow sites, mixed-light grow sites, and indoor grow sites would have some building space dedicated to non-cultivation activity that is equivalent to approx. 5 to 10% of the canopy area, including ancilliary nurseries.
3 15% It is assumed that outdoor grow sites, mixed-light grow sites, and indoor grow sites would have a water storage pond or a water storage tank (on a pad foundation) that would use up an area that is approx. 20% of the canopy area.
4 1,000 Floor area unit amount in CalEEMod. This does not include the canopy area of outdoor grow sites or mixed-light grow sites.
5 This includes the canopy area, any buildings or sheds, and the area with the water storage pond or tank.
6 The length of the construction period is assumed to be positively correlated with the area of distrubance and floor area of buildings.
7 The same number and types of off-road equipment will be used for each type of grow site. They will differ, however, in the length of the phases for Site Preparation, Grading, Building Construction, and Architectural Coatings.
8 The area of disturbance determines the amount of dust generated by material movement.
9 The same number of worker trips will occur for each type of grow site. They will differ, however, in the length of the phases for Site Preparation, Grading, Building Construction, and Architectural Coatings.
10 It is assumed that a utility vehicle (e.g., John Deere Gator) would be used in the operation of every outdoor and mixed-light grow site. A forklift is use as a proxie to estimate emissions generated by the utility vehicle.
11 A generator would be used at mixed-light grow sites.
12 It's assumed that grassland will be removed to construct new grow sites. The value of the initial acres removed is equivalent to the disturbance area.
13 Source of Precipitation Frequency: CARB. 2016 (November). Miscellaneous Process Methodology 7.9—Entrained Road Travel, Paved Road Dust. Table 8 on page 22. Available: https://www.arb.ca.gov/ei/areasrc/fullpdf/full7-9_2016.pdf. Accessed July 27, 2017.
14 No new paved parking area would not be included at outdoor and mixed-light cultivation sites. Indoor grow sites and non-cultivation facilities would have paved parking spaces.
15 400 sq ft/space The area of each parkign space is approx. 400 sq ft, as assumed by CalEEMod.

| | value | units | source |
|---|---|---|---|
| area converson rate | 43,560 | sq ft/acre | wksht: Unit Conversions |

**Operational Parameters**

| ı Equipment by Phase | | | | # Worker Trips/Work/Day, by Phase | | | | Op'l Forklifts | | | Operational Generator for Lighting | | | | | Vegetation | | | | | In First Three Years | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Grading | Build Constr | Arch Coat | Paving | Site Prep | Grading | Build Constr | Arch Coat | Paving | # | hr/day | # | Fuel Type | hp | hr/day | hr/yr | Remarks | Type | Initial Acres | Final Acres | Remarks | Outdoor/ Indoor | Artificial Lighting? | Number of License Applications in First 3 years | Canopy/Grow Area (acres) | Harvests Annually (harvests/year) | Average Area of Ground Disturbance during Construction | Percent that would involve new construction (%) |
| 1 Grader, 0 Cranes, 1 Air Con | | | N/A | 2 | 3 | 3 | 2 | N/A | 1 | 2 | 0 | Diesel | NA | NA | NA | NA | Grassland | 0.14 | 0 | Initial Acres = disturbance area of 0.14 acres. | outdoor | no | #REF! | #REF! | 2 | #REF! | 50% |
| 1 Grader, 0 Cranes, 1 Air Con | | | N/A | 2 | 3 | 3 | 2 | N/A | 1 | 4 | 0 | Diesel | NA | NA | NA | NA | Grassland | 0.29 | 0 | Initial Acres = disturbance area of 0.29 acres. | outdoor | no | #REF! | #REF! | 2 | #REF! | 50% |
| 1 Grader, 0 Cranes, 1 Air Con | | | N/A | 2 | 3 | 3 | 2 | N/A | 1 | 8 | 0 | Diesel | NA | NA | NA | NA | Grassland | 1.20 | 0 | Initial Acres = disturbance area of 1.2 acres. | outdoor | no | #REF! | #REF! | 2 | #REF! | 50% |
| 1 Grader, 0 Cranes, 1 Air Con | | | N/A | 2 | 3 | 3 | 2 | N/A | 1 | 2 | 1 | Diesel | 50 | 12 | 4,380 | A generi | Grassland | 0.14 | 0 | Initial Acres = disturbance area of 0.14 acres. | indoor/outdoor | yes | #REF! | #REF! | 2 | #REF! | 50% |
| 1 Grader, 0 Cranes, 1 Air Con | | | N/A | 2 | 3 | 3 | 2 | N/A | 1 | 4 | 1 | Diesel | 100 | 12 | 4,380 | A generi | Grassland | 0.29 | 0 | Initial Acres = disturbance area of 0.29 acres. | indoor/outdoor | yes | #REF! | #REF! | 2 | #REF! | 50% |
| 1 Grader, 0 Cranes, 1 Air Con | | | N/A | 2 | 3 | 3 | 2 | N/A | 1 | 6 | 1 | Diesel | 200 | 12 | 4,380 | A generi | Grassland | 0.61 | 0 | Initial Acres = disturbance area of 0.61 acres. | indoor/outdoor | yes | #REF! | #REF! | 2 | #REF! | 50% |
| 1 Grader, 0 Cranes, 1 Air Con | | | defaults | 2 | 3 | 3 | 2 | defaults | 0 | 0 | 0 | Diesel | NA | NA | NA | NA | Grassland | 0.22 | 0 | Initial Acres = disturbance area of 0.22 acres. | indoor | yes | #REF! | #REF! | 5 | #REF! | 50% |
| 1 Grader, 0 Cranes, 1 Air Con | | | defaults | 2 | 3 | 3 | 2 | defaults | 0 | 0 | 0 | Diesel | NA | NA | NA | NA | Grassland | 0.43 | 0 | Initial Acres = disturbance area of 0.43 acres. | indoor | yes | #REF! | #REF! | 5 | #REF! | 50% |
| 1 Grader, 0 Cranes, 1 Air Con | | | defaults | 2 | 3 | 3 | 2 | defaults | 0 | 0 | 0 | Diesel | NA | NA | NA | NA | Grassland | 0.83 | 0 | Initial Acres = disturbance area of 0.83 acres. | indoor | yes | #REF! | #REF! | 5 | #REF! | 50% |
| 1 Grader, 0 Cranes, 1 Air Con | | | defaults | 2 | 3 | 3 | 2 | defaults | 0 | 0 | 0 | Diesel | NA | NA | NA | NA | Grassland | 0.15 | 0 | Initial Acres = disturbance area of 0.15 acres. | indoor/outdoor | yes (suppl) | | #REF! | 2 | N/A | N/A |
| | | | | | | | | | 1 | 6 | NA | NA | NA | NA | NA | NA | Grassland | 0.34 | 0 | Initial Acres = disturbance area of 0.34 acres. | indoor/outdoor | yes | #REF! | | N/A | —[3] | 0% |
| | | | | | | | | | 1 | 6 | NA | NA | NA | NA | NA | NA | Grassland | 0.34 | 0 | Initial Acres = disturbance area of 0.34 acres. | indoor | NA | #REF! | —[2] | N/A | N/A | 0% |
| EMod default for the length of phase | | | | | | | | | 1 | 6 | NA | NA | NA | NA | NA | NA | Grassland | 0.34 | 0 | Initial Acres = disturbance area of 0.34 acres. | indoor | NA | #REF! | —[2] | N/A | N/A | 0% |
| days), a start date of 3/1/2018, with | | | | | | | | | 1 | 6 | NA | NA | NA | NA | NA | NA | Grassland | 0.34 | 0 | Initial Acres = disturbance area of 0.34 acres. | indoor | NA | #REF! | —[2] | N/A | N/A | 0% |
| rlapping phases. Phasing order: Site | | | | | | Use | | | 1 | 6 | NA | NA | NA | NA | NA | NA | Grassland | 0.34 | 0 | Initial Acres = disturbance area of 0.34 acres. | indoor | NA | #REF! | —[2] | N/A | N/A | 0% |
| rading, Building Constr, Paving, Arch | | | | | | CalEEMod | | | 1 | 6 | NA | NA | NA | NA | NA | NA | Grassland | 0.34 | 0 | Initial Acres = disturbance area of 0.34 acres. | indoor | NA | #REF! | —[2] | N/A | N/A | 0% |
| Coatings. | | | | | | default | | | 1 | 6 | NA | NA | NA | NA | NA | NA | Grassland | 0.34 | 0 | Initial Acres = disturbance area of 0.34 acres. | indoor | NA | #REF! | —[2] | N/A | N/A | 0% |
| | | | | | | values | | | 1 | 6 | NA | NA | NA | NA | NA | NA | Grassland | 0.34 | 0 | Initial Acres = disturbance area of 0.34 acres. | indoor | NA | #REF! | —[2] | N/A | N/A | 0% |
| | | | | | | | | | 1 | 6 | NA | NA | NA | NA | NA | NA | Grassland | 0.34 | 0 | Initial Acres = disturbance area of 0.34 acres. | indoor | NA | #REF! | —[2] | N/A | N/A | 0% |
| | | | | | | | | | 1 | 6 | NA | NA | NA | NA | NA | NA | Grassland | 0.34 | 0 | Initial Acres = disturbance area of 0.34 acres. | indoor | NA | #REF! | —[2] | N/A | N/A | 0% |
| Note 7 | | | | Note 9 | | | | Note 10 | | | Note 11 | | | | | Note 12 | | | | | calculation | calculation | PD 2-2 to 2-4 | | calc, Note 5 | Note 4 | |
| ction/Off-Road Equipment | | | | Construction/Trips and VMT/# Trips/Worker(/day) | | | | Operational - Off-Road Equip | | | Operational - Stationary Sources | | | | | Vegetation/Land Use Change/ Veg Land Use Type | | | | | | | | | | | |

## Projections

| Site/Facility Type | Number of Current License Applications for New Cannabis Activities (as of 2016) | Percent of All Cultivation/Non-Cultivation Sites (%) |
|---|---|---|
| **Cultivation Sites** | | |
| 1-Outdoor | 61 | 9.1% |
| 2-Outdoor | 161 | 24.0% |
| 3-Outdoor | 147 | 21.9% |
| 1B-Mixed Light | 25 | 3.7% |
| 2B-Mixed Light | 123 | 18.3% |
| 3B-Mixed Light | 76 | 11.3% |
| 1A-Indoor | 31 | 4.6% |
| 2A-Indoor | 17 | 2.5% |
| 3A-Indoor | 30 | 4.5% |
| 1C-Specialty Cottage | N/A | N/A |
| Total | 671 | 100% |
| **Non-Cultivation Sites** | | |
| 4-Nursery (wholesale) | 78 | 29.0% |
| 6-Manufacturer 1 | 57 | 21.2% |
| 7-Manufacturer 2 | 43 | 16.0% |
| 8-Testing Laboratory | 4 | 1.5% |
| 10-Dispensary | 20 | 7.4% |
| 10A-Producing Dispensar | 4 | 1.5% |
| 11-Distributor | 44 | 16.4% |
| 12-Transport | 2 | 0.7% |
| Processing "microbusiness"? | 17 | 6.3% |
| Total | 269 | 100% |
| Sources: | PD Table 2-2 | |

| | Cultivation Sites | Non-Cultivation Facilities | units | source | |
|---|---|---|---|---|---|
| license applications already received by the County | 671 | 269 | # | PD Table 2-2 and p.2-27 | |
| additional license applications anticipated within 3 years of the ordinance passing | 671 | 269 | # | PD p.2-27 | |
| New operations anticipated, total | 1,342 | 538 | # | summation; See Note 1 | These values are used to estimate operational emissions, which are compared to NCUAQMD's pound-per-day and tons-per-year thresholds. |
| Portion of new operations that would involve new construction | 100% | 50% | % | assumption | Can this be stated in the project description? |
| Percent of new operations constructed during first year | 50% | 50% | % | assumption | Can this be stated in the project description? |
| Number of new operations constructed during first year | 671 | 135 | # | calculation | These values are used to determine annual construction emissions, which are compared to NCUAQMD's tons-per-year thresholds. |
| length of construction season | 9 | 9 | months | assumption | |
| average number of operations under construction per month | 75 | 15 | operations/month | calculation | |
| ratio of peak-month construction activity to average-month construction activity | 2 | 2 | ratio | assumption | |
| peak number of operations under construction during same day | 149 | 30 | operations on pk day | calculation | These values are used to determine maximum daily construction emissions, which are compated to NCUAQMD's pound-per-day thresholds. |

Notes

1 As stated in the project description, "the mix of these new commercial cannabis uses would be similar to the application types received (see Table 2-1 and 2-2) and would involve 1,012 new commercial cannabis cultivation sites and 108 new commercial cannabis non-cultivation sites (e.g., testing, manufacturing, distribution, retail nurseries, and microbusinesses)." The number of new sites is not to be confused with the number of new operations because a site may host more than one operation.

## Construction Trips and VMT

1-Outdoor

| Phase Name | Daily Worker Trip | Days per Year | Total Worker Trips | Worker Trip Length (miles) | Total Worker Trip Length (miles) |
|---|---|---|---|---|---|
| Site Preparation | 2 | 1 | 2 | 16.80 | 33.6 |
| Grading | 3 | 3 | 9 | 16.80 | 151.20 |
| Building Construction | 3 | 10 | 30 | 16.80 | 504.00 |
| Architectural Coating | 2 | 3 | 6 | 16.80 | 100.80 |
| VMT Total | | | | | 789.60 |
| VMT Daily | | | | | 46.45 |

2-Outdoor

| Phase Name | Daily Worker Trip | Days per Year | Total Worker Trips | Worker Trip Length (miles) | Total Worker Trip Length (miles) |
|---|---|---|---|---|---|
| Site Preparation | 2 | 2 | 4 | 16.80 | 67.2 |
| Grading | 3 | 6 | 18 | 16.80 | 302.40 |
| Building Construction | 3 | 20 | 60 | 16.80 | 1,008.00 |
| Architectural Coating | 2 | 6 | 12 | 16.80 | 201.60 |
| VMT Total | | | | | 1,579.20 |
| VMT Daily | | | | | 46.45 |

3-Outdoor

| Phase Name | Daily Worker Trip | Days per Year | Total Worker Trips | Worker Trip Length (miles) | Total Worker Trip Length (miles) |
|---|---|---|---|---|---|
| Site Preparation | 2 | 4 | 8 | 16.80 | 134.4 |
| Grading | 3 | 12 | 36 | 16.80 | 604.80 |
| Building Construction | 3 | 40 | 120 | 16.80 | 2,016.00 |
| Architectural Coating | 2 | 12 | 24 | 16.80 | 403.20 |
| VMT Total | | | | | 3,158.40 |
| VMT Daily | | | | | 46.45 |

1B-Mixed Light

| Phase Name | Daily Worker Trip | Days per Year | Total Worker Trips | Worker Trip Length (miles) | Total Worker Trip Length (miles) |
|---|---|---|---|---|---|
| Site Preparation | 2 | 1 | 2 | 16.80 | 33.6 |
| Grading | 3 | 3 | 9 | 16.80 | 151.20 |
| Building Construction | 3 | 10 | 30 | 16.80 | 504.00 |
| Architectural Coating | 2 | 3 | 6 | 16.80 | 100.80 |
| VMT Total | | | | | 789.60 |
| VMT Daily | | | | | 46.45 |

2B-Mixed Light

| Phase Name | Daily Worker Trip | Days per Year | Total Worker Trips | Worker Trip Length (miles) | Total Worker Trip Length (miles) |
|---|---|---|---|---|---|
| Site Preparation | 2 | 2 | 4 | 16.80 | 67.2 |
| Grading | 3 | 6 | 18 | 16.80 | 302.40 |
| Building Construction | 3 | 20 | 60 | 16.80 | 1,008.00 |
| Architectural Coating | 2 | 6 | 12 | 16.80 | 201.60 |
| VMT Total | | | | | 1,579.20 |
| VMT Daily | | | | | 46.45 |

3B-Mixed Light

| Phase Name | Daily Worker Trip | Days per Year | Total Worker Trips | Worker Trip Length (miles) | Total Worker Trip Length (miles) |
|---|---|---|---|---|---|
| Site Preparation | 2 | 3 | 6 | 16.80 | 100.8 |
| Grading | 3 | 9 | 27 | 16.80 | 453.60 |
| Building Construction | 3 | 30 | 90 | 16.80 | 1,512.00 |
| Architectural Coating | 2 | 9 | 18 | 16.80 | 302.40 |
| VMT Total | | | | | 2,368.80 |
| VMT Daily | | | | | 46.45 |

1A-Indoor

| Phase Name | Daily Worker Trip | Days per Year | Total Worker Trips | Worker Trip Length (miles) | Total Worker Trip Length (miles) |
|---|---|---|---|---|---|
| Site Preparation | 2 | 1 | 2 | 16.80 | 33.6 |
| Grading | 3 | 3 | 9 | 16.80 | 151.20 |
| Building Construction | 3 | 30 | 90 | 16.80 | 1,512.00 |
| Paving | 18 | 5 | 90 | 16.80 | 1,512.00 |
| Architectural Coating | 2 | 6 | 12 | 16.80 | 201.60 |
| VMT Total | | | | | 3,410.40 |
| VMT Daily | | | | | 75.79 |

2A-Indoor

| Phase Name | Daily Worker Trip | Days per Year | Total Worker Trips | Worker Trip Length (miles) | Total Worker Trip Length (miles) |
|---|---|---|---|---|---|
| Site Preparation | 2 | 2 | 4 | 16.80 | 67.2 |
| Grading | 3 | 6 | 18 | 16.80 | 302.40 |
| Building Construction | 3 | 60 | 180 | 16.80 | 3,024.00 |
| Paving | 18 | 5 | 90 | 16.80 | 1,512.00 |
| Architectural Coating | 2 | 12 | 24 | 16.80 | 403.20 |
| VMT Total | | | | | 5,308.80 |
| VMT Daily | | | | | 62.46 |

3A-Indoor

| Phase Name | Daily Worker Trip | Days per Year | Total Worker Trips | Worker Trip Length (miles) | Total Worker Trip Length (miles) |
|---|---|---|---|---|---|
| Site Preparation | 2 | 3 | 6 | 16.80 | 100.8 |
| Grading | 3 | 9 | 27 | 16.80 | 453.60 |
| Building Construction | 3 | 100 | 300 | 16.80 | 5,040.00 |
| Paving | 18 | 5 | 90 | 16.80 | 1,512.00 |
| Architectural Coating | 2 | 24 | 48 | 16.80 | 806.40 |
| VMT Total | | | | | 7,912.80 |
| VMT Daily | | | | | 56.12 |

Non-Cultivation

| Phase Name | Daily Worker Trip | Days per Year | Total Worker Trips | Worker Trip Length (miles) | Total Worker Trip Length (miles) |
|---|---|---|---|---|---|
| Site Preparation | 5 | 1 | 5 | 16.80 | 84 |
| Grading | 10 | 2 | 20 | 16.80 | 336.00 |
| Building Construction | 5 | 10 | 50 | 16.80 | 840.00 |
| Paving | 18 | 5 | 90 | 16.80 | 1,512.00 |
| Architectural Coating | 1 | 5 | 5 | 16.80 | 84.00 |
| VMT Total | | | | | 2,856.00 |
| VMT Daily | | | | | 124.17 |

## Summary of Construction Emissions

(maximum daily emissions of criteria air pollutants and precursors and annual GHGs)

**Grow Site License Type: 1-Outdoor**

| | ROG | ROG | NOx | NOx | PM10 | PM10 | PM2.5 | PM2.5 | CO | CO | SO2 | SO2 | CO2-e | source |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units: | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | MT CO2/yr | |
| Site Preparation | | | | | | | | | | | | | | |
| On-site | 0.2661 | 0.0001 | 2.6297 | 0.0013 | 0.1863 | 0.0001 | 0.1714 | 0.0001 | 2.3367 | 0.0012 | 0.0031 | 0.0000 | | CalEEMod run output: 1-Outdoor Summer |
| Off-site | 0.0238 | 0.0000 | 0.0245 | 0.0000 | 0.0051 | 0.0000 | 0.0070 | 0.0000 | 0.2019 | 0.0001 | 0.0003 | 0.0000 | | CalEEMod run output: 1-Outdoor Summer |
| Total | 0.2899 | 0.0001 | 2.6542 | 0.0013 | 0.1914 | 0.0001 | 0.1784 | 0.0001 | 2.5386 | 0.0013 | 0.0034 | 0.0000 | | summation |
| Grading | | | | | | | | | | | | | | |
| On-site | 0.6226 | 0.0009 | 7.6466 | 0.0115 | 0.4127 | 0.0006 | 0.3530 | 0.0005 | 3.4807 | 0.0052 | 0.0077 | 0.0000 | | CalEEMod run output: 1-Outdoor Summer |
| Off-site | 0.0357 | 0.0001 | 0.0368 | 0.0001 | 0.0077 | 0.0000 | 0.0105 | 0.0000 | 0.3029 | 0.0005 | 0.0004 | 0.0000 | | CalEEMod run output: 1-Outdoor Summer |
| Total | 0.6583 | 0.0010 | 7.6834 | 0.0116 | 0.4204 | 0.0007 | 0.3635 | 0.0005 | 3.7836 | 0.0057 | 0.0081 | 0.0000 | | summation |
| Building Construction | | | | | | | | | | | | | | |
| On-site | 0.8386 | 0.0042 | 7.2665 | 0.0363 | 0.4960 | 0.0025 | 0.4773 | 0.0024 | 6.4082 | 0.0320 | 0.0101 | 0.0001 | | CalEEMod run output: 1-Outdoor Summer |
| Off-site | 0.0357 | 0.0002 | 0.0368 | 0.0002 | 0.0077 | 0.0001 | 0.0105 | 0.0001 | 0.3029 | 0.0016 | 0.0004 | 0.0000 | | CalEEMod run output: 1-Outdoor Summer |
| Total | 0.8743 | 0.0044 | 7.3033 | 0.0365 | 0.5037 | 0.0026 | 0.4878 | 0.0024 | 6.7111 | 0.0336 | 0.0105 | 0.0001 | | summation |
| Architectural Coatings | | | | | | | | | | | | | | |
| On-site | 4.1611 | 0.0062 | 2.0058 | 0.0030 | 0.1506 | 0.0002 | 0.1506 | 0.0002 | 1.8542 | 0.0028 | 0.0030 | 0.0000 | | CalEEMod run output: 1-Outdoor Summer |
| Off-site | 0.0238 | 0.0000 | 0.0245 | 0.0000 | 0.0051 | 0.0000 | 0.0070 | 0.0000 | 0.2019 | 0.0003 | 0.0003 | 0.0000 | | CalEEMod run output: 1-Outdoor Summer |
| Total | 4.1849 | 0.0063 | 2.0303 | 0.0031 | 0.1557 | 0.0002 | 0.1576 | 0.0002 | 2.0561 | 0.0031 | 0.0032 | 0.0000 | | summation |
| **Maximum Daily** | **4.2** | | **7.7** | | **0.5** | | **0.5** | | **6.7** | | **0.01** | | N/A | max calculation |
| **Total During Constr** | N/A | **0.0** | N/A | **0.1** | N/A | **0.0** | N/A | **0.0** | N/A | **0.0** | N/A | **0.0** | **6.2936** | CalEEMod run output: 1-Outdoor Annual |
| **Vegetation Loss** | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | **0.6034** | CalEEMod run output: 1-Outdoor Annual |

**Grow Site License Type: 2-Outdoor**

| | ROG | ROG | NOx | NOx | PM10 | PM10 | PM2.5 | PM2.5 | CO | CO | SO2 | SO2 | CO2-e | source |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units: | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | MT CO2/yr | |
| Site Preparation | | | | | | | | | | | | | | |
| On-site | 0.2661 | 0.0003 | 2.6297 | 0.0026 | 0.1863 | 0.0002 | 0.1714 | 0.0002 | 2.3367 | 0.0023 | 0.0031 | 0.0000 | | CalEEMod run output: 2-Outdoor Summer |
| Off-site | 0.0238 | 0.0000 | 0.0245 | 0.0000 | 0.0051 | 0.0000 | 0.0070 | 0.0000 | 0.2019 | 0.0002 | 0.0003 | 0.0000 | | CalEEMod run output: 2-Outdoor Summer |
| Total | 0.2899 | 0.0003 | 2.6542 | 0.0027 | 0.1914 | 0.0002 | 0.1784 | 0.0002 | 2.5386 | 0.0026 | 0.0034 | 0.0000 | | summation |
| Grading | | | | | | | | | | | | | | |
| On-site | 0.6226 | 0.0019 | 7.6466 | 0.0229 | 0.3747 | 0.0011 | 0.3314 | 0.0010 | 3.4807 | 0.0104 | 0.0077 | 0.0000 | | CalEEMod run output: 2-Outdoor Summer |
| Off-site | 0.0357 | 0.0001 | 0.0368 | 0.0001 | 0.0077 | 0.0001 | 0.0105 | 0.0000 | 0.3029 | 0.0009 | 0.0004 | 0.0000 | | CalEEMod run output: 2-Outdoor Summer |
| Total | 0.6583 | 0.0020 | 7.6834 | 0.0230 | 0.3824 | 0.0012 | 0.3419 | 0.0010 | 3.7836 | 0.0113 | 0.0081 | 0.0000 | | summation |
| Building Construction | | | | | | | | | | | | | | |
| On-site | 0.8386 | 0.0084 | 7.2665 | 0.0727 | 0.4960 | 0.0047 | 0.4773 | 0.0048 | 6.4082 | 0.0641 | 0.0101 | 0.0001 | | CalEEMod run output: 2-Outdoor Summer |
| Off-site | 0.0357 | 0.0004 | 0.0368 | 0.0004 | 0.0077 | 0.0003 | 0.0105 | 0.0001 | 0.3029 | 0.0031 | 0.0004 | 0.0000 | | CalEEMod run output: 2-Outdoor Summer |
| Total | 0.8743 | 0.0088 | 7.3033 | 0.0731 | 0.5037 | 0.0050 | 0.4878 | 0.0049 | 6.7111 | 0.0672 | 0.0105 | 0.0001 | | summation |
| Architectural Coatings | | | | | | | | | | | | | | |
| On-site | 2.2299 | 0.0067 | 2.0058 | 0.0060 | 0.1506 | 0.0005 | 0.1506 | 0.0005 | 1.8542 | 0.0056 | 0.0030 | 0.0000 | | CalEEMod run output: 2-Outdoor Summer |
| Off-site | 0.0238 | 0.0001 | 0.0245 | 0.0001 | 0.0051 | 0.0001 | 0.0070 | 0.0005 | 0.2019 | 0.0056 | 0.0003 | 0.0000 | | CalEEMod run output: 2-Outdoor Summer |
| Total | 2.2537 | 0.0068 | 2.0303 | 0.0061 | 0.1557 | 0.0005 | 0.1576 | 0.0009 | 2.0561 | 0.0111 | 0.0032 | 0.0000 | | summation |
| **Maximum Daily** | **2.3** | | **7.7** | | **0.5** | | **0.5** | | **6.7** | | **0.01** | | N/A | max calculation |
| **Total During Constr** | N/A | **0.0** | N/A | **0.1** | N/A | **0.0** | N/A | **0.0** | N/A | **0.1** | N/A | **0.0** | **12.5871** | CalEEMod run output: 2-Outdoor Annual |
| **Vegetation Loss** | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | **1.2499** | CalEEMod run output: 2-Outdoor Annual |

**Grow Site License Type: 3-Outdoor**

| | ROG | ROG | NOx | NOx | PM10 | PM10 | PM2.5 | PM2.5 | CO | CO | SO2 | SO2 | CO2-e | source |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units: | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | MT CO2/yr | |
| Site Preparation | | | | | | | | | | | | | | |
| On-site | 0.2661 | 0.0005 | 2.6297 | 0.0053 | 0.1863 | 0.0004 | 0.1714 | 0.0003 | 2.3367 | 0.0047 | 0.0031 | 0.0000 | | CalEEMod run output: 3-Outdoor Summer |
| Off-site | 0.0238 | 0.0001 | 0.0245 | 0.0001 | 0.0051 | 0.0000 | 0.0070 | 0.0000 | 0.2019 | 0.0004 | 0.0003 | 0.0000 | | CalEEMod run output: 3-Outdoor Summer |
| Total | 0.2899 | 0.0006 | 2.6542 | 0.0053 | 0.1914 | 0.0004 | 0.1784 | 0.0004 | 2.5386 | 0.0051 | 0.0034 | 0.0000 | | summation |
| Grading | | | | | | | | | | | | | | |
| On-site | 0.6226 | 0.0037 | 7.6446 | 0.0459 | 0.3558 | 0.0021 | 0.3206 | 0.0019 | 3.4807 | 0.0209 | 0.0077 | 0.0001 | | CalEEMod run output: 3-Outdoor Summer |
| Off-site | 0.0357 | 0.0002 | 0.0368 | 0.0002 | 0.0077 | 0.0002 | 0.0105 | 0.0001 | 0.3029 | 0.0019 | 0.0004 | 0.0000 | | CalEEMod run output: 3-Outdoor Summer |
| Total | 0.6583 | 0.0040 | 7.6814 | 0.0461 | 0.3635 | 0.0023 | 0.3311 | 0.0020 | 3.7836 | 0.0228 | 0.0081 | 0.0001 | | summation |
| Building Construction | | | | | | | | | | | | | | |
| On-site | 0.8386 | 0.0168 | 7.2665 | 0.1453 | 0.4960 | 0.0099 | 0.4773 | 0.0096 | 6.4082 | 0.1282 | 0.0101 | 0.0002 | | CalEEMod run output: 3-Outdoor Summer |
| Off-site | 0.0357 | 0.0008 | 0.0368 | 0.0008 | 0.0077 | 0.0001 | 0.0105 | 0.0002 | 0.3029 | 0.0063 | 0.0004 | 0.0000 | | CalEEMod run output: 3-Outdoor Summer |
| Total | 0.8743 | 0.0176 | 7.3033 | 0.1461 | 0.5037 | 0.0101 | 0.4878 | 0.0098 | 6.7111 | 0.1345 | 0.0105 | 0.0002 | | summation |
| Architectural Coatings | | | | | | | | | | | | | | |
| On-site | 1.2643 | 0.0076 | 2.0058 | 0.0120 | 0.1506 | 0.0009 | 0.1506 | 0.0009 | 1.8542 | 0.0111 | 0.0030 | 0.0000 | | CalEEMod run output: 3-Outdoor Summer |
| Off-site | 0.0238 | 0.0002 | 0.0245 | 0.0002 | 0.0051 | 0.0001 | 0.0070 | 0.0000 | 0.2019 | 0.0013 | 0.0003 | 0.0000 | | CalEEMod run output: 3-Outdoor Summer |
| Total | 1.2881 | 0.0077 | 2.0303 | 0.0122 | 0.1557 | 0.0010 | 0.1576 | 0.0009 | 2.0561 | 0.0124 | 0.0032 | 0.0000 | | summation |
| **Maximum Daily** | **1.3** | | **7.7** | | **0.5** | | **0.5** | | **6.7** | | **0.01** | | N/A | max calculation |
| **Total During Constr** | N/A | **0.0** | N/A | **0.2** | N/A | **0.0** | N/A | **0.0** | N/A | **0.2** | N/A | **0.0** | **25.1742** | CalEEMod run output: 3-Outdoor Annual |
| **Vegetation Loss** | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | **5.1720** | CalEEMod run output: 3-Outdoor Annual |

**Grow Site License Type: 1B-Mixed Light**

| | ROG | ROG | NOx | NOx | PM10 | PM10 | PM2.5 | PM2.5 | CO | CO | SO2 | SO2 | CO2-e | source |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units: | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | MT CO2/yr | |
| Site Preparation | | | | | | | | | | | | | | |
| On-site | 0.2661 | 0.0001 | 2.6297 | 0.0013 | 0.1863 | 0.0001 | 0.1714 | 0.0001 | 2.3367 | 0.0012 | 0.0031 | 0.0000 | | CalEEMod run output: 1B-Mixed Light Summer |
| Off-site | 0.0238 | 0.0000 | 0.0245 | 0.0000 | 0.0051 | 0.0000 | 0.0070 | 0.0000 | 0.2019 | 0.0001 | 0.0003 | 0.0000 | | CalEEMod run output: 1B-Mixed Light Summer |
| Total | 0.2899 | 0.0001 | 2.6542 | 0.0013 | 0.1914 | 0.0001 | 0.1784 | 0.0001 | 2.5386 | 0.0013 | 0.0034 | 0.0000 | | summation |
| Grading | | | | | | | | | | | | | | |
| On-site | 0.6226 | 0.0009 | 7.6466 | 0.0115 | 0.4127 | 0.0006 | 0.3530 | 0.0005 | 3.4807 | 0.0052 | 0.0077 | 0.0000 | | CalEEMod run output: 1B-Mixed Light Summer |
| Off-site | 0.0357 | 0.0001 | 0.0368 | 0.0001 | 0.0077 | 0.0000 | 0.0105 | 0.0000 | 0.3029 | 0.0005 | 0.0004 | 0.0000 | | CalEEMod run output: 1B-Mixed Light Summer |
| Total | 0.6583 | 0.0010 | 7.6834 | 0.0116 | 0.4204 | 0.0007 | 0.3635 | 0.0005 | 3.7836 | 0.0057 | 0.0081 | 0.0000 | | summation |
| Building Construction | | | | | | | | | | | | | | |
| On-site | 0.8386 | 0.0042 | 7.2665 | 0.0363 | 0.4960 | 0.0025 | 0.4773 | 0.0024 | 6.4082 | 0.0320 | 0.0101 | 0.0001 | | CalEEMod run output: 1B-Mixed Light Summer |
| Off-site | 0.0357 | 0.0002 | 0.0368 | 0.0002 | 0.0077 | 0.0001 | 0.0105 | 0.0001 | 0.3029 | 0.0016 | 0.0004 | 0.0000 | | CalEEMod run output: 1B-Mixed Light Summer |
| Total | 0.8743 | 0.0044 | 7.3033 | 0.0365 | 0.5037 | 0.0026 | 0.4878 | 0.0024 | 6.7111 | 0.0336 | 0.0105 | 0.0001 | | summation |
| Architectural Coatings | | | | | | | | | | | | | | |
| On-site | 4.1611 | 0.0062 | 2.0058 | 0.0030 | 0.1506 | 0.0002 | 0.1506 | 0.0002 | 1.8542 | 0.0028 | 0.0030 | 0.0000 | | CalEEMod run output: 1B-Mixed Light Summer |
| Off-site | 0.0238 | 0.0000 | 0.0245 | 0.0000 | 0.0051 | 0.0000 | 0.0070 | 0.0000 | 0.2019 | 0.0003 | 0.0003 | 0.0000 | | CalEEMod run output: 1B-Mixed Light Summer |
| Total | 4.1849 | 0.0063 | 2.0303 | 0.0031 | 0.1557 | 0.0003 | 0.1576 | 0.0002 | 2.0561 | 0.0031 | 0.0032 | 0.0000 | | summation |
| **Maximum Daily** | **4.2** | | **7.7** | | **0.5** | | **0.5** | | **6.7** | | **0.01** | | N/A | max calculation |
| **Total During Constr** | N/A | **0.0** | N/A | **0.1** | N/A | **0.0** | N/A | **0.0** | N/A | **0.0** | N/A | **0.0** | **6.2936** | CalEEMod run output: 1B-Mixed Light Annual |
| **Vegetation Loss** | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | **0.6034** | CalEEMod run output: 1B-Mixed Light Annual |

**Grow Site License Type: 2B-Mixed Light**

| | ROG | ROG | NOx | NOx | PM10 | PM10 | PM2.5 | PM2.5 | CO | CO | SO2 | SO2 | CO2-e | source |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units: | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | MT CO2/yr | |
| Site Preparation | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| On-site | 0.2661 | 0.0003 | 2.6297 | 0.0026 | 0.1863 | 0.0002 | 0.1714 | 0.0002 | 2.3367 | 0.0023 | 0.0031 | 0.0000 | | CalEEMod run output: 2B-Mixed Light Summer |
| Off-site | 0.0238 | 0.0000 | 0.0245 | 0.0000 | 0.0051 | 0.0000 | 0.0070 | 0.0000 | 0.2019 | 0.0002 | 0.0003 | 0.0000 | | CalEEMod run output: 2B-Mixed Light Summer |
| Total | 0.2899 | 0.0003 | 2.6542 | 0.0027 | 0.1914 | 0.0002 | 0.1784 | 0.0002 | 2.5386 | 0.0026 | 0.0034 | 0.0000 | | summation |
| Grading | | | | | | | | | | | | | | |
| On-site | 0.6226 | 0.0019 | 7.6466 | 0.0229 | 0.3747 | 0.0011 | 0.3314 | 0.0010 | 3.4807 | 0.0104 | 0.0077 | 0.0000 | | CalEEMod run output: 2B-Mixed Light Summer |
| Off-site | 0.0357 | 0.0001 | 0.0368 | 0.0001 | 0.0077 | 0.0001 | 0.0105 | 0.0000 | 0.3029 | 0.0009 | 0.0004 | 0.0000 | | CalEEMod run output: 2B-Mixed Light Summer |
| Total | 0.6583 | 0.0020 | 7.6834 | 0.0230 | 0.3824 | 0.0012 | 0.3419 | 0.0010 | 3.7836 | 0.0113 | 0.0081 | 0.0000 | | summation |
| Building Construction | | | | | | | | | | | | | | |
| On-site | 0.8386 | 0.0084 | 7.2665 | 0.0727 | 0.4960 | 0.0050 | 0.4773 | 0.0048 | 6.4082 | 0.0641 | 0.0101 | 0.0001 | | CalEEMod run output: 2B-Mixed Light Summer |
| Off-site | 0.0357 | 0.0004 | 0.0368 | 0.0004 | 0.0077 | 0.0003 | 0.0105 | 0.0001 | 0.3029 | 0.0031 | 0.0004 | 0.0000 | | CalEEMod run output: 2B-Mixed Light Summer |
| Total | 0.8743 | 0.0088 | 7.3033 | 0.0731 | 0.5037 | 0.0053 | 0.4878 | 0.0049 | 6.7111 | 0.0672 | 0.0105 | 0.0001 | | summation |
| Architectural Coatings | | | | | | | | | | | | | | |
| On-site | 2.2299 | 0.0067 | 2.0058 | 0.0060 | 0.1506 | 0.0005 | 0.1506 | 0.0005 | 1.8542 | 0.0056 | 0.0030 | 0.0000 | | CalEEMod run output: 2B-Mixed Light Summer |
| Off-site | 0.0238 | 0.0001 | 0.0245 | 0.0001 | 0.0051 | 0.0001 | 0.0070 | 0.0000 | 0.2019 | 0.0006 | 0.0003 | 0.0000 | | CalEEMod run output: 2B-Mixed Light Summer |
| Total | 2.2537 | 0.0068 | 2.0303 | 0.0061 | 0.1557 | 0.0005 | 0.1576 | 0.0005 | 2.0561 | 0.0062 | 0.0032 | 0.0000 | | summation |
| **Maximum Daily** | **2.3** | | **7.7** | | **0.5** | | **0.5** | | **6.7** | | **0.01** | | N/A | max calculation |
| **Total During Constr** | N/A | **0.0** | N/A | **0.1** | N/A | **0.0** | N/A | **0.0** | N/A | **0.1** | N/A | **0.0** | **12.5871** | CalEEMod run output: 2B-Mixed Light Annual |
| **Vegetation Loss** | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | **1.2499** | CalEEMod run output: 2B-Mixed Light Annual |

**Grow Site License Type: 3B-Mixed Light**

| | ROG | ROG | NOx | NOx | PM10 | PM10 | PM2.5 | PM2.5 | CO | CO | SO2 | SO2 | CO2-e | source |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units: | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | MT CO2/yr | |
| Site Preparation | | | | | | | | | | | | | | |
| On-site | 0.2661 | 0.0004 | 2.6297 | 0.0039 | 0.1863 | 0.0003 | 0.1714 | 0.0003 | 2.3367 | 0.0035 | 0.0031 | 0.0000 | | CalEEMod run output: 3B-Mixed Light Summer |
| Off-site | 0.0238 | 0.0000 | 0.0245 | 0.0000 | 0.0051 | 0.0000 | 0.0070 | 0.0000 | 0.2019 | 0.0003 | 0.0003 | 0.0000 | | CalEEMod run output: 3B-Mixed Light Summer |
| Total | 0.2899 | 0.0004 | 2.6542 | 0.0040 | 0.1914 | 0.0003 | 0.1784 | 0.0003 | 2.5386 | 0.0038 | 0.0034 | 0.0000 | | summation |
| Grading | | | | | | | | | | | | | | |
| On-site | 0.6226 | 0.0028 | 7.6466 | 0.0344 | 0.3620 | 0.0016 | 0.3242 | 0.0015 | 3.4807 | 0.0157 | 0.0077 | 0.0000 | | CalEEMod run output: 3B-Mixed Light Summer |
| Off-site | 0.0357 | 0.0002 | 0.0368 | 0.0002 | 0.0077 | 0.0001 | 0.0105 | 0.0000 | 0.3029 | 0.0014 | 0.0004 | 0.0000 | | CalEEMod run output: 3B-Mixed Light Summer |
| Total | 0.6583 | 0.0030 | 7.6834 | 0.0346 | 0.3697 | 0.0018 | 0.3347 | 0.0015 | 3.7836 | 0.0171 | 0.0081 | 0.0000 | | summation |
| Building Construction | | | | | | | | | | | | | | |
| On-site | 0.8386 | 0.0126 | 7.2665 | 0.1090 | 0.4960 | 0.0074 | 0.4773 | 0.0072 | 6.4082 | 0.0961 | 0.0101 | 0.0002 | | CalEEMod run output: 3B-Mixed Light Summer |
| Off-site | 0.0357 | 0.0006 | 0.0368 | 0.0006 | 0.0077 | 0.0001 | 0.0105 | 0.0002 | 0.3029 | 0.0047 | 0.0004 | 0.0000 | | CalEEMod run output: 3B-Mixed Light Summer |
| Total | 0.8743 | 0.0132 | 7.3033 | 0.1096 | 0.5037 | 0.0076 | 0.4878 | 0.0073 | 6.7111 | 0.1008 | 0.0105 | 0.0002 | | summation |
| Architectural Coatings | | | | | | | | | | | | | | |
| On-site | 1.5861 | 0.0071 | 2.0058 | 0.0090 | 0.1506 | 0.0007 | 0.1506 | 0.0007 | 1.8542 | 0.0083 | 0.0030 | 0.0000 | | CalEEMod run output: 3B-Mixed Light Summer |
| Off-site | 0.0238 | 0.0001 | 0.0245 | 0.0001 | 0.0051 | 0.0001 | 0.0070 | 0.0000 | 0.2019 | 0.0009 | 0.0003 | 0.0000 | | CalEEMod run output: 3B-Mixed Light Summer |
| Total | 1.6099 | 0.0073 | 2.0303 | 0.0092 | 0.1557 | 0.0008 | 0.1576 | 0.0007 | 2.0561 | 0.0093 | 0.0032 | 0.0000 | | summation |
| **Maximum Daily** | **1.6** | | **7.7** | | **0.5** | | **0.5** | | **6.7** | | **0.01** | | N/A | max calculation |
| **Total During Constr** | N/A | **0.0** | N/A | **0.2** | N/A | **0.0** | N/A | **0.0** | N/A | **0.1** | N/A | **0.0** | **18.8807** | CalEEMod run output: 3B-Mixed Light Annual |
| **Vegetation Loss** | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | **2.6291** | CalEEMod run output: 3B-Mixed Light Annual |

**Grow Site License Type: 1A-Indoor**

| | ROG | ROG | NOx | NOx | PM10 | PM10 | PM2.5 | PM2.5 | CO | CO | SO2 | SO2 | CO2-e | source |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units: | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | MT CO2/yr | |
| Paving | | | | | | | | | | | | | | |
| On-site | 0.9621 | 0.0024 | 8.7447 | 0.0219 | 0.5109 | 0.0013 | 0.4735 | 0.0012 | 7.2240 | 0.0181 | 0.0113 | 0.0000 | | |
| Off-site | 0.2140 | 0.0006 | 0.2207 | 0.0006 | 0.0461 | 0.0001 | 0.0632 | 0.0002 | 1.8171 | 0.0047 | 0.0023 | 0.0000 | | |
| Total | 1.1761 | 0.0030 | 8.9654 | 0.0225 | 0.5570 | 0.0014 | 0.5367 | 0.0013 | 9.0411 | 0.0228 | 0.0136 | 0.0000 | | |
| Site Preparation | | | | | | | | | | | | | | |
| On-site | 0.2661 | 0.0001 | 2.6297 | 0.0013 | 0.1863 | 0.0001 | 0.1714 | 0.0001 | 2.3367 | 0.0012 | 0.0031 | 0.0000 | | CalEEMod run output: 1A-Indoor Summer |
| Off-site | 0.0238 | 0.0000 | 0.0245 | 0.0000 | 0.0051 | 0.0000 | 0.0070 | 0.0000 | 0.2019 | 0.0001 | 0.0003 | 0.0000 | | CalEEMod run output: 1A-Indoor Summer |
| Total | 0.2899 | 0.0001 | 2.6542 | 0.0013 | 0.1914 | 0.0001 | 0.1784 | 0.0001 | 2.5386 | 0.0013 | 0.0034 | 0.0000 | | summation |
| Grading | | | | | | | | | | | | | | |
| On-site | 1.1420 | 0.0017 | 11.5616 | 0.0173 | 0.6796 | 0.0010 | 0.6200 | 0.0009 | 7.2048 | 0.0108 | 0.0140 | 0.0000 | | CalEEMod run output: 1A-Indoor Summer |
| Off-site | 0.0357 | 0.0001 | 0.0368 | 0.0001 | 0.0077 | 0.0000 | 0.0105 | 0.0000 | 0.3029 | 0.0005 | 0.0004 | 0.0000 | | CalEEMod run output: 1A-Indoor Summer |
| Total | 1.1777 | 0.0018 | 11.5984 | 0.0174 | 0.6873 | 0.0011 | 0.6305 | 0.0009 | 7.5077 | 0.0113 | 0.0144 | 0.0000 | | summation |
| Building Construction | | | | | | | | | | | | | | |
| On-site | 0.8386 | 0.0126 | 7.2665 | 0.1090 | 0.4960 | 0.0074 | 0.4773 | 0.0072 | 6.4082 | 0.0961 | 0.0101 | 0.0002 | | CalEEMod run output: 1A-Indoor Summer |
| Off-site | 0.0357 | 0.0006 | 0.0368 | 0.0006 | 0.0077 | 0.0001 | 0.0105 | 0.0002 | 0.3029 | 0.0047 | 0.0004 | 0.0000 | | CalEEMod run output: 1A-Indoor Summer |
| Total | 0.8743 | 0.0132 | 7.3033 | 0.1096 | 0.5037 | 0.0076 | 0.4878 | 0.0073 | 6.7111 | 0.1008 | 0.0105 | 0.0002 | | summation |
| Architectural Coatings | | | | | | | | | | | | | | |
| On-site | 2.2299 | 0.0067 | 2.0058 | 0.0060 | 0.1506 | 0.0005 | 0.1506 | 0.0005 | 1.8542 | 0.0056 | 0.0030 | 0.0000 | | CalEEMod run output: 1A-Indoor Summer |
| Off-site | 0.0238 | 0.0001 | 0.0245 | 0.0001 | 0.0051 | 0.0001 | 0.0070 | 0.0000 | 0.2019 | 0.0006 | 0.0003 | 0.0000 | | CalEEMod run output: 1A-Indoor Summer |
| Total | 2.2537 | 0.0068 | 2.0303 | 0.0061 | 0.1557 | 0.0005 | 0.1576 | 0.0005 | 2.0561 | 0.0062 | 0.0032 | 0.0000 | | summation |
| **Maximum Daily** | **2.3** | | **11.6** | | **0.7** | | **0.6** | | **7.5** | | **0.01** | | N/A | max calculation |
| **Total During Constr** | N/A | **0.0** | N/A | **0.1** | N/A | **0.0** | N/A | **0.0** | N/A | **0.1** | N/A | **0.0** | **19.6926** | CalEEMod run output: 1A-Indoor Annual |
| **Vegetation Loss** | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | **0.9482** | CalEEMod run output: 1A-Indoor Annual |

**Grow Site License Type: 2A-Indoor**

| | ROG | ROG | NOx | NOx | PM10 | PM10 | PM2.5 | PM2.5 | CO | CO | SO2 | SO2 | CO2-e | source |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units: | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | MT CO2/yr | |
| Paving | | | | | | | | | | | | | | |
| On-site | 0.9936 | 0.0025 | 8.7447 | 0.0219 | 0.5109 | 0.0013 | 0.4735 | 0.0012 | 7.2240 | 0.0181 | 0.4735 | 0.0000 | | |
| Off-site | 0.2140 | 0.0006 | 0.2207 | 0.0006 | 0.0461 | 0.8100 | 0.0632 | 0.0002 | 1.8171 | 0.0047 | 0.0023 | 0.0000 | | |
| Total | 1.2076 | 0.0031 | 8.9654 | 0.0225 | 0.5570 | 0.8113 | 0.5367 | 0.0013 | 9.0411 | 0.0228 | 0.4758 | 0.0000 | | |
| Site Preparation | | | | | | | | | | | | | | |
| On-site | 0.2661 | 0.0003 | 2.6297 | 0.0026 | 0.1863 | 0.0002 | 0.1714 | 0.0002 | 2.3367 | 0.0023 | 0.0031 | 0.0000 | | CalEEMod run output: 2A-Indoor Summer |
| Off-site | 0.0238 | 0.0000 | 0.0245 | 0.0000 | 0.0051 | 0.0000 | 0.0070 | 0.0000 | 0.2019 | 0.0002 | 0.0003 | 0.0000 | | CalEEMod run output: 2A-Indoor Summer |
| Total | 0.2899 | 0.0003 | 2.6542 | 0.0027 | 0.1914 | 0.0002 | 0.1784 | 0.0002 | 2.5386 | 0.0026 | 0.0034 | 0.0000 | | summation |
| Grading | | | | | | | | | | | | | | |
| On-site | 1.1420 | 0.0034 | 11.5616 | 0.0347 | 0.6417 | 0.0019 | 0.5984 | 0.0018 | 7.2048 | 0.2016 | 0.0140 | 0.0000 | | CalEEMod run output: 2A-Indoor Summer |
| Off-site | 0.0357 | 0.0001 | 0.0368 | 0.0001 | 0.0077 | 0.0001 | 0.0105 | 0.0000 | 0.3029 | 0.0009 | 0.0004 | 0.0000 | | CalEEMod run output: 2A-Indoor Summer |
| Total | 1.1777 | 0.0036 | 11.5984 | 0.0348 | 0.6494 | 0.0020 | 0.6089 | 0.0018 | 7.5077 | 0.2025 | 0.0144 | 0.0000 | | summation |
| Building Construction | | | | | | | | | | | | | | |
| On-site | 0.8386 | 0.0252 | 7.2665 | 0.2180 | 0.4960 | 0.0149 | 0.4773 | 0.0143 | 6.4082 | 0.1923 | 0.0101 | 0.0003 | | CalEEMod run output: 2A-Indoor Summer |
| Off-site | 0.0357 | 0.0012 | 0.0368 | 0.0012 | 0.0077 | 0.0002 | 0.0105 | 0.0003 | 0.3029 | 0.0094 | 0.0004 | 0.0000 | | CalEEMod run output: 2A-Indoor Summer |
| Total | 0.8743 | 0.0264 | 7.3033 | 0.2192 | 0.5037 | 0.0151 | 0.4878 | 0.0146 | 6.7111 | 0.2017 | 0.0105 | 0.0003 | | summation |
| Architectural Coatings | | | | | | | | | | | | | | |
| On-site | 1.2643 | 0.0076 | 2.0058 | 0.0120 | 0.1506 | 0.0009 | 0.1506 | 0.0009 | 1.8542 | 0.0111 | 0.0030 | 0.0000 | | CalEEMod run output: 2A-Indoor Summer |
| Off-site | 0.0238 | 0.0002 | 0.0245 | 0.0002 | 0.0051 | 0.0001 | 0.0070 | 0.0000 | 0.2019 | 0.0013 | 0.0003 | 0.0000 | | CalEEMod run output: 2A-Indoor Summer |
| Total | 1.2881 | 0.0077 | 2.0303 | 0.0122 | 0.1557 | 0.0010 | 0.1576 | 0.0009 | 2.0561 | 0.0124 | 0.0032 | 0.0000 | | summation |
| **Maximum Daily** | **1.3** | | **11.6** | | **0.6** | | **0.6** | | **7.5** | | **0.01** | | N/A | max calculation |
| **Total During Constr** | N/A | **0.0** | N/A | **0.3** | N/A | **0.8** | N/A | **0.0** | N/A | **0.4** | N/A | **0.0** | **36.4209** | CalEEMod run output: 2A-Indoor Annual |
| **Vegetation Loss** | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | **1.8533** | CalEEMod run output: 2A-Indoor Annual |

**Grow Site License Type: 3A-Indoor**

| | ROG | ROG | NOx | NOx | PM10 | PM10 | PM2.5 | PM2.5 | CO | CO | SO2 | SO2 | CO2-e | source |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units: | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | MT CO2/yr | |
| Paving | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| On-site | 1.0355 | 0.0026 | 8.7447 | 0.0219 | 0.5109 | 0.0013 | 0.4735 | 0.0012 | 7.2240 | 0.0181 | 0.4735 | 0.0000 | | |
| Off-site | 0.2140 | 0.0006 | 0.2207 | 0.0006 | 0.0461 | 0.0001 | 0.0632 | 0.0002 | 1.8171 | 0.0047 | 0.0023 | 0.0000 | | |
| Total | 1.2495 | 0.0032 | 8.9654 | 0.0225 | 0.5570 | 0.0014 | 0.5367 | 0.0013 | 9.0411 | 0.0228 | 0.4758 | 0.0000 | | |
| Site Preparation | | | | | | | | | | | | | | |
| On-site | 0.2661 | 0.0039 | 2.6297 | 0.0039 | 0.1863 | 0.0003 | 0.1714 | 0.0003 | 2.3367 | 0.0035 | 0.0031 | 0.0000 | | CalEEMod run output: 3A-Indoor Summer |
| Off-site | 0.0238 | 0.0000 | 0.0245 | 0.0000 | 0.0051 | 0.0000 | 0.0070 | 0.0000 | 0.2019 | 0.0003 | 0.0003 | 0.0000 | | CalEEMod run output: 3A-Indoor Summer |
| Total | 0.2899 | 0.0040 | 2.6542 | 0.0040 | 0.1914 | 0.0003 | 0.1784 | 0.0003 | 2.5386 | 0.0038 | 0.0034 | 0.0000 | | summation |
| Grading | | | | | | | | | | | | | | |
| On-site | 1.1420 | 0.0051 | 11.5616 | 0.0520 | 0.6290 | 0.0028 | 0.5912 | 0.0027 | 7.2048 | 0.0324 | 0.0140 | 0.0001 | | CalEEMod run output: 3A-Indoor Summer |
| Off-site | 0.0357 | 0.0002 | 0.0368 | 0.0002 | 0.0077 | 0.0001 | 0.0105 | 0.0000 | 0.3029 | 0.0014 | 0.0004 | 0.0000 | | CalEEMod run output: 3A-Indoor Summer |
| Total | 1.1777 | 0.0053 | 11.5984 | 0.0522 | 0.6367 | 0.0030 | 0.6017 | 0.0027 | 7.5077 | 0.0338 | 0.0144 | 0.0001 | | summation |
| Building Construction | | | | | | | | | | | | | | |
| On-site | 0.8386 | 0.0419 | 7.2665 | 0.3633 | 0.4960 | 0.0248 | 0.4773 | 0.0239 | 6.4082 | 0.3204 | 0.0101 | 0.0005 | | CalEEMod run output: 3A-Indoor Summer |
| Off-site | 0.0357 | 0.0020 | 0.0368 | 0.0020 | 0.0077 | 0.0004 | 0.0105 | 0.0005 | 0.3029 | 0.0156 | 0.0004 | 0.0000 | | CalEEMod run output: 3A-Indoor Summer |
| Total | 0.8743 | 0.0439 | 7.3033 | 0.3653 | 0.5037 | 0.0252 | 0.4878 | 0.0244 | 6.7111 | 0.3360 | 0.0105 | 0.0005 | | summation |
| Architectural Coatings | | | | | | | | | | | | | | |
| On-site | 0.7814 | 0.0094 | 2.0058 | 0.0241 | 0.1506 | 0.0018 | 0.1506 | 0.0018 | 1.8542 | 0.0223 | 0.0030 | 0.0000 | | CalEEMod run output: 3A-Indoor Summer |
| Off-site | 0.0238 | 0.0003 | 0.0245 | 0.0003 | 0.0051 | 0.0002 | 0.0070 | 0.0001 | 0.2019 | 0.0025 | 0.0003 | 0.0000 | | CalEEMod run output: 3A-Indoor Summer |
| Total | 0.8052 | 0.0097 | 2.0303 | 0.0244 | 0.1557 | 0.0020 | 0.1576 | 0.0019 | 2.0561 | 0.0248 | 0.0032 | 0.0000 | | summation |
| **Maximum Daily** | **1.2** | | **11.6** | | **0.6** | | **0.6** | | **7.5** | | **0.01** | | N/A | max calculation |
| **Total During Constr** | N/A | **0.1** | N/A | **0.5** | N/A | **0.0** | N/A | **0.0** | N/A | **0.4** | N/A | **0.0** | **58.5904** | CalEEMod run output: 3A-Indoor Annual |
| **Vegetation Loss** | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | **3.5773** | CalEEMod run output: 3A-Indoor Annual |

**Non-Cultivation Facilities- 4-Nursery, 6-Manufacturer1, 7-Manufacturer2, 8-Testing Laboratory, 10-Dispensary, 10A-Producing Dispensary, 11-Distributor, 12-Transport, and/or Processing Facilities**

| | ROG | ROG | NOx | NOx | PM10 | PM10 | PM2.5 | PM2.5 | CO | CO | SO2 | SO2 | CO2-e | source |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units: | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | MT CO2/yr | |
| Site Preparation | | | | | | | | | | | | | | |
| On-site | 0.7858 | 0.0004 | 9.7572 | 0.0049 | 0.9483 | 0.0005 | 0.4418 | 0.0002 | 4.2514 | 0.0021 | 0.0098 | 0.0000 | | CalEEMod run output: Non-Cultivation Facilities-Summer |
| Off-site | 0.0423 | 0.0000 | 0.0412 | 0.0000 | 0.0004 | 0.0000 | 0.0113 | 0.0000 | 0.3480 | 0.0002 | 0.0004 | 0.0000 | | CalEEMod run output: 4-Nursery, 6-Manufacturer1, 7-Manufacturer2, 8-Testing Laboratory, 10-Dispensary, 10A-Producing Dispensary, 11-Distributor, 12-Transport, and/or Processing Facilities Summer |
| Total | 0.8281 | 0.0004 | 9.7984 | 0.0049 | 0.9487 | 0.0005 | 0.4531 | 0.0002 | 4.5994 | 0.0023 | 0.0102 | 0.0000 | | summation |
| Grading | | | | | | | | | | | | | | |
| On-site | 1.6043 | 0.0011 | 9.4295 | 0.0094 | 1.3755 | 0.0014 | 1.0081 | 0.0010 | 7.7762 | 0.0078 | 0.0120 | 0.0000 | | CalEEMod run output: 4-Nursery, 6-Manufacturer1, 7-Manufacturer2, 8-Testing Laboratory, 10-Dispensary, 10A-Producing Dispensary, 11-Distributor, 12-Transport, and/or Processing Facilities Summer |
| Off-site | 0.0845 | 0.0001 | 0.0824 | 0.0001 | 0.0830 | 0.0001 | 0.0226 | 0.0000 | 0.6961 | 0.0007 | 0.0008 | 0.0000 | | CalEEMod run output: 4-Nursery, 6-Manufacturer1, 7-Manufacturer2, 8-Testing Laboratory, 10-Dispensary, 10A-Producing Dispensary, 11-Distributor, 12-Transport, and/or Processing Facilities Summer |
| Total | 1.6888 | 0.0012 | 9.5119 | 0.0095 | 1.4585 | 0.0015 | 1.0307 | 0.0010 | 8.4723 | 0.0085 | 0.0128 | 0.0000 | | summation |
| Building Construction | | | | | | | | | | | | | | |
| On-site | 1.0848 | 0.0542 | 11.0316 | 0.0552 | 0.7087 | 0.0354 | 0.6520 | 0.0326 | 7.7512 | 0.0388 | 0.0114 | 0.0001 | | CalEEMod run output: 4-Nursery, 6-Manufacturer1, 7-Manufacturer2, 8-Testing Laboratory, 10-Dispensary, 10A-Producing Dispensary, 11-Distributor, 12-Transport, and/or Processing Facilities Summer |
| Off-site | 0.0586 | 0.0003 | 0.3544 | 0.0018 | 0.0585 | 0.0027 | 0.0185 | 0.0001 | 0.4451 | 0.0023 | 0.0010 | 0.0000 | | CalEEMod run output: 4-Nursery, 6-Manufacturer1, 7-Manufacturer2, 8-Testing Laboratory, 10-Dispensary, 10A-Producing Dispensary, 11-Distributor, 12-Transport, and/or Processing Facilities Summer |
| Total | 1.1434 | 0.0545 | 11.3860 | 0.0570 | 0.7672 | 0.0381 | 0.6705 | 0.0327 | 8.1963 | 0.0411 | 0.0124 | 0.0001 | | summation |
| Paving | | | | | | | | | | | | | | |
| On-site | 0.9778 | 0.0024 | 8.7447 | 0.0219 | 0.5109 | 0.0013 | 0.4735 | 0.0012 | 7.2240 | 0.0181 | 0.0113 | 0.0000 | | |
| Off-site | 0.1521 | 0.0004 | 0.1483 | 0.0004 | 0.1495 | 0.0003 | 0.0407 | 0.0001 | 1.2529 | 0.0033 | 0.0015 | 0.0000 | | |
| Total | 1.1299 | 0.0029 | 8.8930 | 0.0223 | 0.6604 | 0.0016 | 0.5142 | 0.0013 | 8.4769 | 0.0214 | 0.0128 | 0.0000 | | |
| Architectural Coatings | | | | | | | | | | | | | | |
| On-site | 3.1129 | 0.1183 | 2.0058 | 0.0050 | 0.1506 | 0.0004 | 0.1506 | 0.0004 | 1.8542 | 0.0046 | 0.0030 | 0.0000 | | CalEEMod run output: 4-Nursery, 6-Manufacturer1, 7-Manufacturer2, 8-Testing Laboratory, 10-Dispensary, 10A-Producing Dispensary, 11-Distributor, 12-Transport, and/or Processing Facilities Summer |
| Off-site | 0.0085 | 0.0000 | 0.0082 | 0.0000 | 0.0083 | 0.0000 | 0.0023 | 0.0000 | 0.0696 | 0.0002 | 0.0001 | 0.0000 | | CalEEMod run output: 4-Nursery, 6-Manufacturer1, 7-Manufacturer2, 8-Testing Laboratory, 10-Dispensary, 10A-Producing Dispensary, 11-Distributor, 12-Transport, and/or Processing Facilities Summer |
| Total | 3.1214 | 0.1183 | 2.0140 | 0.0050 | 0.1589 | 0.0004 | 0.1529 | 0.0004 | 1.9238 | 0.0048 | 0.0031 | 0.0000 | | summation |
| **Maximum Daily** | **3.1** | | **11.4** | | **1.5** | | **1.0** | | **8.5** | | **0.01** | | N/A | max calculation |
| **Total During Constr** | N/A | **0.2** | N/A | **0.1** | N/A | **0.0** | N/A | **0.0** | N/A | **0.1** | N/A | **0.0** | **62.0037** | CalEEMod run output: 4-Nursery, 6-Manufacturer1, 7-Manufacturer2, 8-Testing Laboratory, 10-Dispensary, 10A-Producing Dispensary, 11-Distributor, 12-Transport, and/or Processing Facilities Annual |
| **Vegetation Loss** | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | **0.9913** | CalEEMod run output: 4-Nursery, 6-Manufacturer1, 7-Manufacturer2, 8-Testing Laboratory, 10-Dispensary, 10A-Producing Dispensary, 11-Distributor, 12-Transport, and/or Processing Facilities Annual |

**Architectural Coatings Adjustment**

| Phase | umber of Days |
|---|---|
| Site Prep | 1 |
| Grading | 2 |
| Building Constructi | 100 |
| Paving | 5 |
| Arch Coating | 5 |
| | |
| CalEEMod arch coating output | 47.3161 |
| Adjusted arch coating days (Adjusted based on 2/3 building days plus paving and arch coating) | 76.0000 |
| | 236.5805 |
| ROG (lb/day) | 3.1129 |

## Summary of Operational Emissions

(maximum daily emissions of criteria air pollutants and precursors and annual GHGs)

**Grow Site License Type: 1-Outdoor**

| | ROG | ROG | NOx | NOx | PM10 | PM10 | PM2.5 | PM2.5 | CO | CO | SO2 | SO2 | $CO_2$-e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units: | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | MT CO2/yr |
| Area | 0.0139 | 0.0025 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.01 | 0.00 | 0.0 | 0.00 | 0.00 | 0.000 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

**Grow Site License Type: 2-Outdoor**

| | ROG | ROG | NOx | NOx | PM10 | PM10 | PM2.5 | PM2.5 | CO | CO | SO2 | SO2 | $CO_2$-e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units: | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | MT CO2/yr |
| Area | 0.0246 | 0.0045 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.02 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

**Grow Site License Type: 3-Outdoor**

| | ROG | ROG | NOx | NOx | PM10 | PM10 | PM2.5 | PM2.5 | CO | CO | SO2 | SO2 | $CO_2$-e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units: | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | MT CO2/yr |
| Area | 0.0417 | 0.0076 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0002 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

**Grow Site License Type: 1B-Mixed Light**

| | ROG | ROG | NOx | NOx | PM10 | PM10 | PM2.5 | PM2.5 | CO | CO | SO2 | SO2 | $CO_2$-e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units: | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | MT CO2/yr |
| Area | 0.0139 | 0.0025 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

**Grow Site License Type: 2B-Mixed Light**

| | ROG | ROG | NOx | NOx | PM10 | PM10 | PM2.5 | PM2.5 | CO | CO | SO2 | SO2 | $CO_2$-e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units: | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | MT CO2/yr |
| Area | 0.0246 | 0.0045 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

**Grow Site License Type: 3B-Mixed Light**

| | ROG | ROG | NOx | NOx | PM10 | PM10 | PM2.5 | PM2.5 | CO | CO | SO2 | SO2 | $CO_2$-e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units: | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | MT CO2/yr |
| Area | 0.0322 | 0.0061 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0001 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

**Grow Site License Type: 1A-Indoor**

| | ROG | ROG | NOx | NOx | PM10 | PM10 | PM2.5 | PM2.5 | CO | CO | SO2 | SO2 | $CO_2$-e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units: | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | MT CO2/yr |
| Area | 0.1221 | 0.0223 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0014 | 0.0001 | 0.0000 | 0.0000 | 0.0003 |
| Total | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

**Grow Site License Type: 2A-Indoor**

| | ROG | ROG | NOx | NOx | PM10 | PM10 | PM2.5 | PM2.5 | CO | CO | SO2 | SO2 | $CO_2$-e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units: | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | MT CO2/yr |
| Area | 0.2411 | 0.0440 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0028 | 0.0003 | 0.0000 | 0.0000 | 0.0005 |
| Total | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

**Grow Site License Type: 3A-Indoor**

| | ROG | ROG | NOx | NOx | PM10 | PM10 | PM2.5 | PM2.5 | CO | CO | SO2 | SO2 | $CO_2$-e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units: | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | MT CO2/yr |
| Area | 0.5078 | 0.0926 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0049 | 0.0004 | 0.0000 | 0.0000 | 0.0009 |
| Total | 0.5 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

**Non-Cultivation Facilities- 4-Nursery, 6-Manufacturer1, 7-Manufacturer2, 8-Testing Laboratory, 10-Dispensary, 10A-Producing Dispensary, 11-Distributor, 12-Transport, and/or Processing Facilities**

| | ROG | ROG | NOx | NOx | PM10 | PM10 | PM2.5 | PM2.5 | CO | CO | SO2 | SO2 | $CO_2$-e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Units: | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | lb/day | tons/year | MT CO2/yr |
| Area | 0.2803 | 0.0511 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0023 | 0.0002 | 0.0000 | 0.0000 | 0.0004 |
| Energy | 0.0010 | 0.0002 | 0.0095 | 0.0017 | 0.0007 | 0.0001 | 0.0007 | 0.0001 | 0.0080 | 0.0015 | 0.0001 | 0.0000 | 1.8949 |
| Total | 0.3 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.9 |

# Road Dust Adjustment

## Unpaved Road Emissions - Operational

| | | |
|---|---|---|
| Unpaved Daily VMT | 81 | per cultivation site |
| Rainfall Adjustment | 0.6685 | |
| PM10 (lb/day) | 108.2989638 | per cultivation site |
| Unpaved Annual VMT | 10,948.56 | per cultivation site |
| PM10 (tons/year) | 7.31911236 | per cultivation site |

## Unpaved Road Emissions - Construction

| | |
|---|---|
| Unpaved Daily VMT | 191.18 |
| Rainfall Adjustment | 0.6685 |
| PM10 (lb/day) | 0.13 |

| **PAVED MILES** | | |
|---|---|---|
| Local | 4030.917952 | Source: Humboldt County GIS |
| LOCAL | 0.218552452 | |
| Local Roads | 0.048783235 | |
| Major Rural Collector | 343.8206771 | |
| Minor Rural Collector | 149.5161043 | |
| Minor Urban Arterial | 17.19488609 | |
| Minor Urban Collector | 18.30857107 | |
| Private | 1249.650026 | |
| Rural Connector | 92.19787934 | |
| Rural Minor Arterial | 8.530663025 | |
| Rural Principal Arterial | 180.2019426 | |
| Urban Principal Arterial | 31.89299059 | |
| Total | 4872.849002 | |

| **UNPAVED MILES** | | Source: https://www.arb.ca.gov/ei/areasrc/fullpdf/full7-10_2012.pdf |
|---|---|---|
| City/County | 725 | |
| USFS/Parks | 300.5 | |
| BLM/BIA | 147.4 | |
| Total | 1172.9 | |

| **PRECIPITATION DAYS** | | |
|---|---|---|
| Humboldt County | 121 | Source: https://www.arb.ca.gov/ei/areasrc/fullpdf/full7-9_2016.pdf, Table 8 |

## Mobile-Source Emissions

## Vehicle Miles Traveled

| | value | units | source |
|---|---|---|---|
| Earliest operational year | 2018 | calendar yr | County staff |
| Transportation region | Humboldt County | | project description |
| Non-residential trip length, C-W trip (default) | 14.7 | miles/trip | CalEEMod, Operational-Mobile module, Vehicle Trips tab |
| | | | |
| Cumulative Maximum Daily Trips | 31,897 | trips/day | wksht: Cumulative Harvest |
| Cumulative Maximum Daily VMT | 468,879 | VMT/day | calculation |
| | | | |
| Daily VMT per cultivation site | **426** | VMT/day | wksht: Harvest |
| | | | |
| Harvest Period Trips per cultivation site | 1,920 | trips/year | |
| Non-Harvest Period Trips per cultivation site | 2,000 | trips/year | |
| Total Annual Trips per cultivation site | 3,920 | trips/year | |
| Annual VMT per cultivation site | **57,624** | VMT/year | |

Vehicle Types

| types of vehicles making trps | LDA | LDT1 | LDT2 | units | source |
|---|---|---|---|---|---|
| default fleet mix in CalEEMod | 0.469869 | 0.051968 | 0.208218 | % | EMFAC |
| adjusted fleet mix | 64% | 7% | 29% | % | weighted average |

## Operational Mobile-Source Emissions

| | ROG | NOx | PM10 | PM2.5 | CO2-e |
|---|---|---|---|---|---|
| Daily Emissions per cultivation site (lb/day) | 0.0011098 | 0.001096155 | 0.0002144 | 9.109E-05 | 1.4821919 |
| Annual Emissions per cultivation site (tons/year) | 0.0390947 | 0.038614814 | 0.0075532 | 0.0032088 | 52.213916 |

## Cumulative Mobile-Source Emissions

| | ROG | NOx | PM10 | PM2.5 | source |
|---|---|---|---|---|---|
| | lb/day | lb/day | lb/day | lb/day | |
| Maximum Daily Emissions | 1.2205538 | 1.205572106 | 0.2358132 | 0.1001812 | EMFAC run |
| Annual Emissions (tons/year) | 72.249312 | 71.36248416 | 13.9587 | 5.9301108 | EMFAC run |

| | |
|---|---|
| gram to pou | 0.002205 |
| pounds to M | 0.000454 |
| pounds to to | 0.0005 |

Net Work Days

| | |
|---|---|
| 1/1/2018 | |
| 12/31/2018 | |
| | 261 |

## Harvest VMT - Operational

| Operation Type | Number | Employees | Daily Trips | Additional | Daily Trips | Annual Harvest Trips |
|---|---|---|---|---|---|---|
| New Cultivation Sites[1] | 1 | 15 | 2 | 2 | 32 | 1920 |
| New Remote Cultivation Sites[2] | 1 | 15 | 0.25 | 2 | 6 | 345 |
| New Non-Cultivation Sites (New Processing, Manufacturing, Distribution, and Dispensary Sites) | 1 | 15 | 2 | 0 | 30 | 1800 |
| | | | | Total Annual Harvest Days | 60 | |
| | | | | Total Harvest Trips | 4065 | 243900 |

[1]Number of new cultivation sites within approximately 15 miles of existing communities and lodging located along Highway 101, SR 36, and SR 299. It is assumed that employees for these sites will

[2]Number of new cultivation sites farther than approximately 15 miles of existing communities and lodging located along Highway 101, SR 36, and SR 299. It is assumed that employees having to

Analyzed for peak harvest period during which the most traffic trips would be generated. This includes cultivation site traffic and operational traffic from all other cannabis related operations (preocessing, manufacturing, distribution, etc…)

Cultivation Site Assumptions

Harvest at new cultivation sites conservatively assumed to all take place simultaneously

15 full-time harvest employees for cultivation sites

1 delivery trip (roundtrip) per day per cultivation site (this was not included for non-cultivation sites as to not double count such activities)

Assumed that new cultivation sites over 15 miles from a major highway (where seasonal workers would live on site) would experience reduced generate daily trips (.25 trips/employee per day)

870 New Cultivation Sites in first 3 years (=435*2)

142 New RemoteCultivation Sites in first 3 years (=71*2)

All other cannabis related operations (preocessing, manufacturing, distribution, etc…) assuptions

115 full-time harvest employees for all other cannabis related operations (preocessing, manufacturing, distribution, etc…)

108 New" all other" sites in first 3 years (=54*2)

Harvest

Each harvest is assumed to span 4 weeks

It is conservatively assumed that operations will average 3 harvest per year (basd on PD)

It is assumed that during harvest employees will work 5 days per week

## Non-Harvest VMT - Operational

| Operation Type | Number | Employees | Daily Trips | Additional | Daily Trips | Annual Non-Harvest Trips |
|---|---|---|---|---|---|---|
| New Cultivation Sites[1] | 1 | 4 | 2 | 2 | 10 | 2000 |
| New Remote Cultivation Sites[2] | 1 | 4 | 0.25 | 2 | 3 | 600 |
| New Non-Cultivation Sites (New Processing, Manufacturing, Distribution, and Dispensary Sites) | 1 | 4 | 2 | 0 | 8 | 1600 |
| | | | | Total Annual Non-Harvest Work Days | | 200 |
| [1]Number of new cultivation sites within approximately 15 miles of existing communities and lodging located along Highway 101, SR 36, and SR 299. It is assumed that employees for these sites will | | | | | | |
| [2]Number of new cultivation sites farther than approximately 15 miles of existing communities and lodging located along Highway 101, SR 36, and SR 299. It is assumed that employees having to travel to | | | | | | |

Cultivation Site Assumptions
4 full-time employees for cultivation sites
1 delivery trip (roundtrip) per day per cultivation site (this was not included for non-cultivation sites as to not double count such activities)
Assumed that new cultivation sites over 15 miles from a major highway (where workers would live on site) would experience reduced generate daily trips (.25 trips/employee per day)
870 New Cultivation Sites in first 3 years (=435*2)
142 New Remote Cultivation Sites in first 3 years (=71*2)

All other cannabis related operations (preocessing, manufacturing, distribution, etc…) assuptions
4 full-time year round employees for all other cannabis related operations (preocessing, manufacturing, distribution, etc…)
100% of all other cannabis related operations (preocessing, manufacturing, distribution, etc…) would be generated by current residents
108 New" all other" sites in first 3 years (=54*2)

Other Assumptions
It is assumed that employees will work 5 days per week

# Appendix C

## Energy Calculations

## EMFAC Run

| calendar_y | season_mc | sub_area | vehicle_cla | fuel | VMT | g/mi ROG | g/mi NOx | g/mi PM10 | g/mi PM2.5 | g/mi CO2 | g/mi CH4 | fuel |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2018 | Annual | Humboldt ( | LDA | Gas | 1480522 | 0.327033 | 0.311988 | 0.077032 | 0.032648 | 498.393 | 0.025878 | 53.61604 |
| 2018 | Annual | Humboldt ( | LDA | Dsl | 21911.26 | 0.001541 | 0.014339 | 0.002108 | 0.001411 | 7.248063 | 7.16E-05 | 0.652326 |
| 2018 | Annual | Humboldt ( | LDA | Elec | 16616.32 | 1.49E-05 | | 0.00082 | 0.000325 | 84.34557 | | |
| 2018 | Annual | Humboldt ( | LDT1 | Gas | 204709.8 | 0.241803 | 0.181375 | 0.011644 | 0.005429 | 84.34557 | 0.015852 | 9.301107 |
| 2018 | Annual | Humboldt ( | LDT2 | Gas | 696867.4 | 0.301456 | 0.335942 | 0.0364 | 0.015498 | 324.0993 | 0.020145 | 34.92573 |
| 2018 | Annual | Humboldt ( | LDT1 | Dsl | 405.8477 | 0.000127 | 0.000693 | 0.000123 | 0.000106 | 0.179235 | 5.88E-06 | 0.016131 |
| 2018 | Annual | Humboldt ( | LDT2 | Dsl | 889.897 | 2.69E-05 | 8.63E-05 | 5.88E-05 | 3.17E-05 | 0.353669 | 1.25E-06 | 0.03183 |
| 2018 | Annual | Humboldt ( | LDT1 | Elec | 293.8259 | 4.14E-07 | | 1.45E-05 | 5.75E-06 | | | |
| | | | LDA | | | 0.318761 | 0.304281 | 0.075118 | 0.031844 | 486.7794 | 0.025223 | |
| | | | LDT1 | | | 0.287405 | 0.300318 | 0.030725 | 0.013189 | 269.1873 | 0.019136 | |
| | | | LDT2 | | | 0.300897 | 0.335319 | 0.036333 | 0.015469 | 323.4983 | 0.020107 | |

## Fuel Usage Calculations

| | 1-Outdoor | 2-Outdoor | 3-Outdoor | 1B-Mixed Light | 2B-Mixed Light | 3B-Mixed Light | 1A-Indoor | 2A-Indoor | 3A-Indoor | Non-Cultivation |
|---|---|---|---|---|---|---|---|---|---|---|
| **Construction Off-Road Equipment Emissions (MTCO2e)** | 6.022 | 12.0439 | 24.0877 | 6.022 | 12.0439 | 18.0658 | 18.5194 | 34.5948 | 55.8685 | 9.8401 |
| Diesel Emission Factor (Climate Registry) (kg CO2/gallon) | 10.21 | 10.21 | 10.21 | 10.21 | 10.21 | 10.21 | 10.21 | 10.21 | 10.21 | 10.21 |
| Diesel Fuel Consumption (gallons) | 590 | 1,180 | 2,359 | 590 | 1,180 | 1,769 | 1,814 | 3,388 | 5,472 | 964 |
| | | | | | | | | | | |
| **Construction Trips** | | | | | | | | | | |
| Worker Trip Emissions (MTCO2e) | 0.2717 | 0.5432 | 1.0864 | 0.2717 | 0.5432 | 0.8148 | 1.1732 | 1.8261 | 2.7218 | 0.9049 |
| Gas Emission Factor (Climate Registry) (kg CO2/gallon) | 8.78 | 8.78 | 8.78 | 8.78 | 8.78 | 8.78 | 8.78 | 8.78 | 8.78 | 8.78 |
| Gasoline Fuel Consumption (gallons) | 31 | 62 | 124 | 31 | 62 | 93 | 134 | 208 | 310 | 103 |

| | | |
|---|---|---|
| **Operational Fuel Consumption** | | |
| VMT Emissions (Cultivation) | 0.19 | MTCO2e |
| VMT Emissions (Non-Cultivation) | 0.18 | MTCO2e |
| Percent gasoline | 99% | |
| Percent diesel | 1% | |
| Gas Emission Factor (Climate Registry) (kg CO2/gallon) | 8.78 | |
| Diesel Emission Factor (Climate Registry) (kg CO2/gallon) | 10.21 | |
| Cultivation Gasoline Fuel Consumption (gallons) | **21.8** | |
| Cultivation Diesel Fuel Consumption (gallons) | **0.18** | |
| Non-Cultivation Gasoline Fuel Consumption (gallons) | 20.4740892 | |
| Non-Cultivation Diesel Fuel Consumption (gallons) | 0.17152699 | |

| | |
|---|---|
| Conversions | |
| MT to kg | 1000 |

## Buiding Energy Consumption

| Grow Site License Type | Percent of Cultivation Sites | Cultivation Sites | Proportion of Cultivation Sites | Electricity Consumption per site (kWh) | Total Electricity Consumption (kWh) | Natural Gas Consumption per site (Btu) | Total Natural Gas Consumption (Btu) |
|---|---|---|---|---|---|---|---|
| 1-Outdoor | 9.1% | 1342 | 122 | 2180 | 265960 | N/A | N/A |
| 2-Outdoor | 24.0% | 1342 | 322 | 4360 | 1403920 | N/A | N/A |
| 3-Outdoor | 21.9% | 1342 | 294 | 7848 | 2307312 | N/A | N/A |
| 1B-Mixed Light | 3.7% | 1342 | 50 | 2180 | 109000 | N/A | N/A |
| 2B-Mixed Light | 18.3% | 1342 | 246 | 4360 | 1072560 | N/A | N/A |
| 3B-Mixed Light | 11.3% | 1342 | 152 | 6104 | 927808 | N/A | N/A |
| 1A-Indoor | 4.6% | 1342 | 62 | 26796 | 1661352 | N/A | N/A |
| 2A-Indoor | 2.5% | 1342 | 34 | 53592 | 1822128 | N/A | N/A |
| 3A-Indoor | 4.5% | 1342 | 60 | 110472 | 6628320 | N/A | N/A |
| Non-Cultivation Facilities- | 100.0% | 538 | 538 | 47824 | 25729312 | 35300 | 1688187200 |
| Total | | | | | 41927672 | | 1688187200 |
| | | | | | 41,928 MWh | | 1,688 MMBtu |

| Conversion | |
|---|---|
| kWh to MWh | 0.001 |
| Btu to MMBtu | 0.000001 |

| | | |
|---|---|---|
| Average electricity consumption per cultivation site (kWh/year) | 24,210.22 | |
| Natural gas equivalent (Btu) per site | 82,608,667.65 | |
| MMBtu per site | 82.61 | |
| Gallons per site | 750.99 | |
| Average electricity consumption per non-cultivation site (kWh/year) | 47,824.00 | |
| Natural gas equivalent (Btu) per site | 163,182,183.36 | |
| MMBtu per site | 163.18 | |
| Gallons per site | 17.95 | |
| Gallons for 1,995 existing sites | 1,498,221 | 1,198,576.67 |

| Conversion | | |
|---|---|---|
| Natural gas to gallons (MMBtu/gallon) | 0.11 | Source: Climate Registry 2016 |
| kWh to Btu | 3412.14 | Source: Google |
| kg Co2/gallon | 7.36 | |

11,026,905.35
11,026.91

2,205.38

# Appendix D

## Noise Calculations

# Construction Source Noise Prediction Model

| Equipment | Reference Emission Noise Levels ($L_{max}$) at 50 feet[1] | Usage Factor[1] |
|---|---|---|
| Grader | 85 | 0.4 |

| | |
|---|---|
| **Ground Type** | HARD |
| **Source Height** | 8 |
| **Receiver Height** | 5 |
| **Ground Factor[2]** | 0.00 |

| Predicted Noise Level [3] | $L_{eq}$ dBA at 50 feet[3] |
|---|---|
| Grader | 81.0 |

| Combined Predicted Noise Level ($L_{eq}$ dBA at 50 feet) |
|---|
| 81.0 |

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, January 2006. Table 1.

[2] Based on Figure 6-5 from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 6-23).

[3] Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 12-3).

$L_{eq}$(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects (FTA 2006: pg 6-23); and

D = Distance from source to receiver.

# Attenuation Calculations for Stationary Noise Sources

**KEY:** Orange cells are for input.
Grey cells are intermediate calculations performed by the model.
Green cells are data to present in a written analysis (output).

**STEP 1: Identify the noise source and enter the reference noise level (dBA and distance).**

**STEP 2: Select the ground type (hard or soft), and enter the source and receiver heights.**

**STEP 3: Select the distance to the receiver.**

| Noise Source/ID | Reference Noise Level | | | Attenuation Characteristics | | | | Attenuated Noise Level at Receptor | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | noise level (dBA) | @ | distance (ft) | Ground Type (soft/hard) | Source Height (ft) | Receiver Height (ft) | Ground Factor | noise level (dBA) | @ | distance (ft) | Interior Noise Level |
| loader/backhoe/grader/dozer | 81.0 | @ | 50 | soft | 8 | 5 | 0.63 | 86.8 | @ | 30 | 71.8 |
| loader/backhoe/grader/dozer | 81.0 | @ | 50 | soft | 8 | 5 | 0.63 | 60.5 | @ | 300 | 45.5 |
| loader/backhoe/grader/dozer | 81.0 | @ | 50 | soft | 8 | 5 | 0.63 | 52.6 | @ | 600 | 37.6 |
| | | | | | | | 0.66 | | | | |
| Trimmer | 81.0 | @ | 3 | soft | 8 | 5 | 0.63 | 54.7 | @ | 30 | |
| Trimmer | 81.0 | @ | 3 | soft | 8 | 5 | 0.63 | 28.3 | @ | 300 | |
| Trimmer | 81.0 | @ | 3 | soft | 8 | 5 | 0.63 | 20.4 | @ | 600 | |
| | | | | | | | 0.66 | | | | |
| | | | | | | | 0.66 | | | | |
| | | | | | | | 0.66 | | | | |
| | | | | | | | 0.66 | | | | |
| | | | | | | | 0.66 | | | | |

Notes:

Estimates of attenuated noise levels do not account for reductions from intervening barriers, including walls, trees, vegetation, or structures of any type.

Computation of the attenuated noise level is based on the equation presented on pg. 12-3 and 12-4 of FTA 2006.

Computation of the ground factor is based on the equation presentd in Figure 6-23 on pg. 6-23 of FTA 2006, where the distance of the reference noise leve can be adjusted and the usage factor is not applied (i.e., the usage factor is equal to 1).

Sources:

Federal Transit Association (FTA). 2006 (May). Transit Noise and Vibration Impact Assessment. FTA-VA-90-1003-06. Washington, D.C. Available: <http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf>. Accessed: September 24, 2010.

# Long-Term Noise Measurement Summary

**KEY:** Orange cells are for input.
Grey cells are intermediate calculations performed by the model.
Green cells are data to present in a written analysis (output).

**Measurement Site:** Contruction Noise Levels at 300 ft
**Measurement Date:** N/A
**Project Name:** Humboldt County Medical Cannabis Cultivation and Commerce Ordinance Project Draft Environmental Impact Report

## Computation of Ldn

| Period of 24-Hour Day (1=included, 0=not) | | Sound Power Breakdown by Period of Day | |
|---|---|---|---|
| Day | Night | Day | Night |
| 0 | 1 | 0 | 35,481 |
| 0 | 1 | 0 | 35,481 |
| 0 | 1 | 0 | 35,481 |
| 0 | 1 | 0 | 35,481 |
| 0 | 1 | 0 | 35,481 |
| 0 | 1 | 0 | 35,481 |
| 0 | 1 | 0 | 35,481 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 0 | 1 | 0 | 35,481 |
| 0 | 1 | 0 | 35,481 |

| | | |
|---|---|---|
| **Sum of Sound Power during Period wo/penalty** | 532,220 | 319,332 |
| **Log Factor for Penalty (i.e., 10*log(x))** | 1 | 10 |
| **Sound Power during Period with penalty** | 532,220 | 3,193,321 |

| | |
|---|---|
| **Total Daily Sound Power, with penalties** | 3,725,541 |
| **Hours per Day** | 24 |
| **Average Hourly Sound Power, with penalties** | 155,231 |
| **Ldn** | 51.9 |

Notes:

Computation of the CNEL based on 1-hour Leq measurements for each hour of a day are based on equation 2-27 on pg. 2-57 of Caltrans 2009.

Computation of the Ldn based on 1-hour Leq measurements for each hour of a day are based on equation 2-26 on pg. 2-56 of Caltrans 2009.

Log factors for the Ldn and CNEL penalties are provided in Table 2-12 on pg. 2-52 of Caltrans 2009.

Source:

California Deaprtment of Transportation (Caltrans), Divisiong of Environmental Analysis. 2009 (November). *2009 Technical Noise Supplement* . Sacramento, CA. Available: <http://www.dot.ca.gov/hq/env/noise/>. Accessed September 24, 2010.

## Long-Term Noise Measurement Summary

**KEY:** Orange cells are for input.
Grey cells are intermediate calculations performed by the model.
Green cells are data to present in a written analysis (output).

**Measurement Site:** Contruction Noise Levels at 300 ft (no nighttime construction)
**Measurement Date:** N/A
**Project Name:** Humboldt County Medical Cannabis Cultivation and Commerce Ordinance Project Draft Environmental Impact Report

### Computation of Ldn

| Period of 24-Hour Day (1=included, 0=not) | | Sound Power Breakdown by Period of Day | |
|---|---|---|---|
| Day | Night | Day | Night |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 35,481 | 0 |
| 1 | 0 | 1 | 0 |
| 1 | 0 | 1 | 0 |
| 1 | 0 | 1 | 0 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |

| | | |
|---|---|---|
| **Sum of Sound Power during Period wo/penalty** | 425,779 | 9 |
| **Log Factor for Penalty (i.e., 10*log(x))** | 1 | 10 |
| **Sound Power during Period with penalty** | 425,779 | 90 |

| | |
|---|---|
| **Total Daily Sound Power, with penalties** | 425,869 |
| **Hours per Day** | 24 |
| **Average Hourly Sound Power, with penalties** | 17,745 |
| **Ldn** | 42.5 |

Notes:

Computation of the CNEL based on 1-hour Leq measurements for each hour of a day are based on equation 2-27 on pg. 2-57 of Caltrans 2009.

Computation of the Ldn based on 1-hour Leq measurements for each hour of a day are based on equation 2-26 on pg. 2-56 of Caltrans 2009.

Log factors for the Ldn and CNEL penalties are provided in Table 2-12 on pg. 2-52 of Caltrans 2009.

Source:

California Deaprtment of Transportation (Caltrans), Divisiong of Environmental Analysis. 2009 (November). *2009 Technical Noise Supplement* . Sacramento, CA. Available: <http://www.dot.ca.gov/hq/env/noise/>. Accessed September 24, 2010.

# Long-Term Noise Measurement Summary

**KEY:** Orange cells are for input.
Grey cells are intermediate calculations performed by the model.
Green cells are data to present in a written analysis (output).

**Measurement Site:** Contruction Noise Levels at 600 ft
**Measurement Date:** N/A
**Project Name:** Humboldt County Medical Cannabis Cultivation and Commerce Ordinance Project Draft Environmental Impact Report

## Computation of Ldn

| Period of 24-Hour Day (1=included, 0=not) | | Sound Power Breakdown by Period of Day | |
|---|---|---|---|
| Day | Night | Day | Night |
| 0 | 1 | 0 | 6,310 |
| 0 | 1 | 0 | 6,310 |
| 0 | 1 | 0 | 6,310 |
| 0 | 1 | 0 | 6,310 |
| 0 | 1 | 0 | 6,310 |
| 0 | 1 | 0 | 6,310 |
| 0 | 1 | 0 | 6,310 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 0 | 1 | 0 | 6,310 |
| 0 | 1 | 0 | 6,310 |

| | | |
|---|---|---|
| **Sum of Sound Power during Period wo/penalty** | 94,644 | 56,786 |
| **Log Factor for Penalty (i.e., 10*log(x))** | 1 | 10 |
| **Sound Power during Period with penalty** | 94,644 | 567,862 |

| | |
|---|---|
| **Total Daily Sound Power, with penalties** | 662,505 |
| **Hours per Day** | 24 |
| **Average Hourly Sound Power, with penalties** | 27,604 |
| **Ldn** | 44.4 |

Notes:

Computation of the CNEL based on 1-hour Leq measurements for each hour of a day are based on equation 2-27 on pg. 2-57 of Caltrans 2009.

Computation of the Ldn based on 1-hour Leq measurements for each hour of a day are based on equation 2-26 on pg. 2-56 of Caltrans 2009.

Log factors for the Ldn and CNEL penalties are provided in Table 2-12 on pg. 2-52 of Caltrans 2009.

Source:

California Deaprtment of Transportation (Caltrans), Divisiong of Environmental Analysis. 2009 (November). *2009 Technical Noise Supplement* . Sacramento, CA. Available: <http://www.dot.ca.gov/hq/env/noise/>. Accessed September 24, 2010.

## Long-Term Noise Measurement Summary

**KEY:** Orange cells are for input.
Grey cells are intermediate calculations performed by the model.
Green cells are data to present in a written analysis (output).

**Measurement Site:** Contruction Noise Levels at 600 ft (no nighttime construction)
**Measurement Date:** N/A
**Project Name:** Humboldt County Medical Cannabis Cultivation and Commerce Ordinance Project Draft Environmental Impact Report

### Computation of Ldn

| Period of 24-Hour Day (1=included, 0=not) | | Sound Power Breakdown by Period of Day | |
|---|---|---|---|
| Day | Night | Day | Night |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 6,310 | 0 |
| 1 | 0 | 1 | 0 |
| 1 | 0 | 1 | 0 |
| 1 | 0 | 1 | 0 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |

| | | |
|---|---|---|
| **Sum of Sound Power during Period wo/penalty** | 75,718 | 9 |
| **Log Factor for Penalty (i.e., 10*log(x))** | 1 | 10 |
| **Sound Power during Period with penalty** | 75,718 | 90 |

| | |
|---|---|
| **Total Daily Sound Power, with penalties** | 75,808 |
| **Hours per Day** | 24 |
| **Average Hourly Sound Power, with penalties** | 3,159 |
| **Ldn** | 35.0 |

Notes:

Computation of the CNEL based on 1-hour Leq measurements for each hour of a day are based on equation 2-27 on pg. 2-57 of Caltrans 2009.

Computation of the Ldn based on 1-hour Leq measurements for each hour of a day are based on equation 2-26 on pg. 2-56 of Caltrans 2009.

Log factors for the Ldn and CNEL penalties are provided in Table 2-12 on pg. 2-52 of Caltrans 2009.

Source:

California Deaprtment of Transportation (Caltrans), Divisiong of Environmental Analysis. 2009 (November). *2009 Technical Noise Supplement* . Sacramento, CA. Available: <http://www.dot.ca.gov/hq/env/noise/>. Accessed September 24, 2010.

## Long-Term Noise Measurement Summary

**KEY:** Orange cells are for input.
Grey cells are intermediate calculations performed by the model.
Green cells are data to present in a written analysis (output).

**Measurement Site:** Operational Noise Levels at 30 ft (trimmer)
**Measurement Date:** N/A
**Project Name:** Humboldt County Medical Cannabis Cultivation and Commerce Ordinance Project Draft Environmental Impact Report

### Computation of Ldn

| Period of 24-Hour Day (1=included, 0=not) | | Sound Power Breakdown by Period of Day | |
|---|---|---|---|
| Day | Night | Day | Night |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 1 | 0 | 316,228 | 0 |
| 1 | 0 | 316,228 | 0 |
| 1 | 0 | 316,228 | 0 |
| 1 | 0 | 316,228 | 0 |
| 1 | 0 | 316,228 | 0 |
| 1 | 0 | 316,228 | 0 |
| 1 | 0 | 316,228 | 0 |
| 1 | 0 | 316,228 | 0 |
| 1 | 0 | 316,228 | 0 |
| 1 | 0 | 316,228 | 0 |
| 1 | 0 | 316,228 | 0 |
| 1 | 0 | 316,228 | 0 |
| 1 | 0 | 316,228 | 0 |
| 1 | 0 | 316,228 | 0 |
| 1 | 0 | 1 | 0 |
| 1 | 0 | 1 | 0 |
| 1 | 0 | 1 | 0 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |

| | | |
|---|---|---|
| **Sum of Sound Power during Period wo/penalty** | 3,794,736 | 9 |
| **Log Factor for Penalty (i.e., 10*log(x))** | 1 | 10 |
| **Sound Power during Period with penalty** | 3,794,736 | 90 |

| | |
|---|---|
| **Total Daily Sound Power, with penalties** | 3,794,826 |
| **Hours per Day** | 24 |
| **Average Hourly Sound Power, with penalties** | 158,118 |
| **Ldn** | 52.0 |

Notes:

Computation of the CNEL based on 1-hour Leq measurements for each hour of a day are based on equation 2-27 on pg. 2-57 of Caltrans 2009.

Computation of the Ldn based on 1-hour Leq measurements for each hour of a day are based on equation 2-26 on pg. 2-56 of Caltrans 2009.

Log factors for the Ldn and CNEL penalties are provided in Table 2-12 on pg. 2-52 of Caltrans 2009.

Source:

California Deaprtment of Transportation (Caltrans), Divisiong of Environmental Analysis. 2009 (November). *2009 Technical Noise Supplement* . Sacramento, CA. Available: <http://www.dot.ca.gov/hq/env/noise/>. Accessed September 24, 2010.

## Long-Term Noise Measurement Summary

**KEY:** Orange cells are for input.
Grey cells are intermediate calculations performed by the model.
Green cells are data to present in a written analysis (output).

**Measurement Site:** Operational Noise Levels at 300 ft (trimmer)
**Measurement Date:** N/A
**Project Name:** Humboldt County Medical Cannabis Cultivation and Commerce Ordinance Project Draft Environmental Impact Report

### Computation of Ldn

| Period of 24-Hour Day (1=included, 0=not) | | Sound Power Breakdown by Period of Day | |
|---|---|---|---|
| Day | Night | Day | Night |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 1 | 0 | 676 | 0 |
| 1 | 0 | 676 | 0 |
| 1 | 0 | 676 | 0 |
| 1 | 0 | 676 | 0 |
| 1 | 0 | 676 | 0 |
| 1 | 0 | 676 | 0 |
| 1 | 0 | 676 | 0 |
| 1 | 0 | 676 | 0 |
| 1 | 0 | 676 | 0 |
| 1 | 0 | 676 | 0 |
| 1 | 0 | 676 | 0 |
| 1 | 0 | 676 | 0 |
| 1 | 0 | 676 | 0 |
| 1 | 0 | 676 | 0 |
| 1 | 0 | 1 | 0 |
| 1 | 0 | 1 | 0 |
| 1 | 0 | 1 | 0 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |

| | | |
|---|---|---|
| **Sum of Sound Power during Period wo/penalty** | 8,116 | 9 |
| **Log Factor for Penalty (i.e., 10*log(x))** | 1 | 10 |
| **Sound Power during Period with penalty** | 8,116 | 90 |

| | |
|---|---|
| **Total Daily Sound Power, with penalties** | 8,206 |
| **Hours per Day** | 24 |
| **Average Hourly Sound Power, with penalties** | 342 |
| **Ldn** | 25.3 |

Notes:

Computation of the CNEL based on 1-hour Leq measurements for each hour of a day are based on equation 2-27 on pg. 2-57 of Caltrans 2009.

Computation of the Ldn based on 1-hour Leq measurements for each hour of a day are based on equation 2-26 on pg. 2-56 of Caltrans 2009.

Log factors for the Ldn and CNEL penalties are provided in Table 2-12 on pg. 2-52 of Caltrans 2009.

Source:

California Deaprtment of Transportation (Caltrans), Divisiong of Environmental Analysis. 2009 (November). *2009 Technical Noise Supplement* . Sacramento, CA. Available: <http://www.dot.ca.gov/hq/env/noise/>. Accessed September 24, 2010.

## Long-Term Noise Measurement Summary

**KEY:** Orange cells are for input.
Grey cells are intermediate calculations performed by the model.
Green cells are data to present in a written analysis (output).

**Measurement Site:** Operational Noise Levels at 600 ft (trimmer)
**Measurement Date:** N/A
**Project Name:** Humboldt County Medical Cannabis Cultivation and Commerce Ordinance Project Draft Environmental Impact Report

### Computation of Ldn

| Period of 24-Hour Day (1=included, 0=not) | | Sound Power Breakdown by Period of Day | |
|---|---|---|---|
| Day | Night | Day | Night |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |
| 1 | 0 | 110 | 0 |
| 1 | 0 | 110 | 0 |
| 1 | 0 | 110 | 0 |
| 1 | 0 | 110 | 0 |
| 1 | 0 | 110 | 0 |
| 1 | 0 | 110 | 0 |
| 1 | 0 | 110 | 0 |
| 1 | 0 | 110 | 0 |
| 1 | 0 | 110 | 0 |
| 1 | 0 | 110 | 0 |
| 1 | 0 | 110 | 0 |
| 1 | 0 | 110 | 0 |
| 1 | 0 | 110 | 0 |
| 1 | 0 | 110 | 0 |
| 1 | 0 | 1 | 0 |
| 1 | 0 | 1 | 0 |
| 1 | 0 | 1 | 0 |
| 0 | 1 | 0 | 1 |
| 0 | 1 | 0 | 1 |

| | | |
|---|---|---|
| **Sum of Sound Power during Period wo/penalty** | 1,319 | 9 |
| **Log Factor for Penalty (i.e., 10*log(x))** | 1 | 10 |
| **Sound Power during Period with penalty** | 1,319 | 90 |

| | |
|---|---|
| **Total Daily Sound Power, with penalties** | 1,409 |
| **Hours per Day** | 24 |
| **Average Hourly Sound Power, with penalties** | 59 |
| **Ldn** | 17.7 |

Notes:

Computation of the CNEL based on 1-hour Leq measurements for each hour of a day are based on equation 2-27 on pg. 2-57 of Caltrans 2009.

Computation of the Ldn based on 1-hour Leq measurements for each hour of a day are based on equation 2-26 on pg. 2-56 of Caltrans 2009.

Log factors for the Ldn and CNEL penalties are provided in Table 2-12 on pg. 2-52 of Caltrans 2009.

Source:

California Deaprtment of Transportation (Caltrans), Divisiong of Environmental Analysis. 2009 (November). *2009 Technical Noise Supplement* . Sacramento, CA. Available: <http://www.dot.ca.gov/hq/env/noise/>. Accessed September 24, 2010.

# Appendix E

## Hydrology

State Water Resources Control Board

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# Cannabis Cultivation Policy

## Principles and Guidelines for Cannabis Cultivation

July 7, 2017

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## Attachments

Attachment A: Requirements for Cannabis Cultivation
Attachment B: Glossary of Terms

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## Acronyms and Abbreviations

| | |
|---|---|
| ACL | Administrative Civil Liability |
| Antidegradation Policy | State Water Board Resolution 68-16, the Statement of Policy with Respect to Maintaining High Quality of Waters in California |
| Army Corps | United States Army Corps of Engineers |
| AUMA | Adult Use of Marijuana Act of 2016 |
| Basin Plan | Water Quality Control Plan |
| BOF | Board of Forestry |
| BPTC | Best Practicable Treatment or Control |
| BPC | California Business and Professions Code |
| CAL FIRE | California Department of Forestry and Fire Protection |
| CAO | Cleanup and Abatement Orders |
| CDFA | California Department of Food and Agriculture |
| Cannabis Policy | Cannabis Cultivation Policy, Principles and Guidelines for Cannabis Cultivation |
| CIWQS | California Integrated Water Quality System |
| CUA | Compassionate Use Act of 1996 |
| CEQA | California Environmental Quality Act |
| CDEC | California Data Exchange Center |
| CDFA | California Department of Food and Agriculture |
| CDFW | California Department of Fish and Wildlife |
| CDO | Cease and Desist Order |
| CHRIS | California Historical Resources Information System |
| CWA | Clean Water Act |
| Deputy Director | Deputy Director for the Division of Water Rights |
| DPR | Department of Pesticides Regulation |
| DPS | Distinct Population Segments |
| DTE | Distinct Taxonomic Entities |
| DWR | California Department of Water Resources |
| e.g. | Latin exempli gratia (for example) |
| ESA | Federal Endangered Species Act |
| ESU | Evolutionary Significant Unit |
| Executive Officer | Executive Officer of the Regional Water Quality Control Board |
| FER | Flashy, Ephemeral Rain hydrologic regime |
| FPR | Forest Practice Rules |
| General Order | General Waste Discharge Requirements for Discharges of Waste associated with Cannabis Cultivation Activity |
| GW | Groundwater hydrologic regime |
| HELP | High Elevation and Low Precipitation hydrologic regime |
| HSR | High-Volume Snowmelt and Rain hydrologic regime |
| HUC | Hydrologic Unit Code |
| HSC | Health and Safety Code |
| ILRP | Irrigated Lands Regulatory Program |
| LSA Agreement | Lake and Streambed Alteration Agreement |
| LSR | Low-Volume Snowmelt and Rain hydrologic regime |
| LTO | Licensed Timber Operator |

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| | |
|---|---|
| MCRSA | Medical Cannabis Regulation and Safety Act |
| MMRSA | Medical Marijuana Regulation and Safety Act |
| NCRO | Department of Water Resources, North Central Region Office |
| NHD | National Hydrography Database |
| NHDPlusV2 | National Hydrography Database Plus Version 2 |
| NMP | Nitrogen Management Plan |
| NOA | Notice of Applicability |
| NONA | Notice of Non-Applicability |
| NOT | Notice of Termination |
| NOV | Notice of Violation |
| NPDES | National Pollutant Discharge Elimination System |
| NPS | Nonpoint Source Pollution Control Program |
| NRO | Department of Water Resources, North Region Office |
| NTU | Nephelometric Turbidity Units |
| OWTS | Onsite Wastewater Treatment System |
| PGR | Perennial Groundwater and Rain hydrologic regime |
| RSG | Rain and Seasonal Groundwater hydrologic regime |
| Regional Water Board | Regional Water Quality Control Board |
| Road Handbook | Handbook for Forest, Ranch, and Rural Roads |
| RPF | California Registered Professional Forester |
| RWD | Report of Waste Discharge |
| State Water Board | State Water Resources Control Board |
| SB | Senate Bill |
| SCCWRP | Southern California Coastal Water Research Project |
| SCR | Site Closure Report |
| SIC | Standard Industrial Code |
| SDR | Small Domestic Registrations |
| SEPs | Supplemental Environmental Projects |
| SIUR | Small Irrigation Use Registrations |
| SM | Snowmelt hydrologic regime |
| SW-CGP | Storm Water Construction General Permit |
| SW-IGP | Storm Water Industrial General Permit |
| SWPPP | Storm Water Pollution Prevention Plan |
| THP | Timber Harvest Plan |
| TMDL | Total Maximum Daily Load |
| UC Davis | University of California, Davis |
| US | United States |
| USBR | United States Bureau of Reclamation |
| USEPA | United States Environmental Protection Agency |
| USGS | United States Geological Survey |
| Water Boards | State Water Board and Regional Water Boards |

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# POLICY OVERVIEW

The purpose of this Cannabis Cultivation Policy (Policy) is to ensure that the diversion of water and discharge of waste associated with cannabis cultivation does not have a negative impact on water quality, aquatic habitat, riparian habitat, wetlands, and springs. This Policy applies to the following cannabis cultivation activities throughout California:

- Commercial Recreational
- Commercial Medical
- Personal Use Medical

This Policy does not apply to recreational cannabis cultivation for personal use, which is limited to six plants under the Adult Use of Marijuana Act (Proposition 64, approved by voters in November 2016)[1].

Cannabis cultivation legislation enacted Business and Professions Code section 26060.1(b)(1), which requires the State Water Resources Control Board (State Water Board), in consultation with the California Department of Fish and Wildlife (CDFW) and the California Department of Food and Agriculture (CDFA), to ensure that the individual and cumulative effects of water diversions and discharges associated with cannabis cultivation do not affect instream flows needed for fish spawning, migration, and rearing, and the flows needed to maintain natural flow variability. In addition, cannabis-related legislation resulted in California Water Code (Water Code) section 13149, which directs the State Water Board, in consultation with CDFW, to adopt interim and long-term principles and guidelines for the diversion and use of water for cannabis cultivation in areas where cannabis cultivation may have the potential to substantially affect instream flows. The legislation requires the State Water Board to establish these principles and guidelines as part of a state policy for water quality control[2]. Per Water Code section 13149, the principles and guidelines:

- shall include measures to protect springs, wetlands, and aquatic habitats from negative impacts of cannabis cultivation; and
- may include requirements that apply to groundwater diversions where the State Water Board determines those requirements are reasonably necessary.

Additionally, the State Water Board has primary enforcement responsibility for the principles and guidelines and shall notify CDFA of any enforcement action taken[3].

This Policy establishes principles and guidelines (herein "Requirements") for cannabis cultivation activities to protect water quality and instream flows. The Requirements established by this Policy will be incorporated into and implemented through five regulatory programs:

- CDFA's CalCannabis Cultivation Licensing Program[4];

[1] Recreational cannabis cultivation for personal use as defined in Health and Safety Code section 11362.1(a)(3) and section 11362.2.

[2] Water Code section 13149(b)(2). *The board shall adopt principles and guidelines under this section as part of state policy for water quality control adopted pursuant to Article 3 (commencing with Section 13140) of Chapter 3 of Division 7.* Water Code section 13142 outlines specific requirements for a state policy for water quality control, which this Policy implements.

[3] Water Code section 13149(b)(5).

[4] Business and Professions Code section 26060(b)(1). The CalCannabis Cultivation Licensing Program is anticipated to begin accepting applications for cannabis cultivation licenses by January 1, 2018.

- State Water Board's Cannabis General Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities (Cannabis General Order) or any Waste Discharge Requirements addressing cannabis cultivation activities adopted by a Regional Water Quality Control Board (Regional Water Board);
- State Water Board's General Water Quality Certification for Cannabis Cultivation Activities (Cannabis General Water Quality Certification);
- State Water Board's Cannabis Small Irrigation Use Registration (Cannabis SIUR); and
- State Water Board's Water Rights Permitting and Licensing Program.

The Requirements for cannabis cultivation are located in Attachment A. Policy background information and justifications for the Requirements are located in the Cannabis Cultivation Policy Staff Report.

Water Code section 13149 authorizes the State Water Board to develop both interim and long-term requirements and update them as necessary. It is anticipated that the State Water Board will update this Policy over time to modify or add requirements to address cannabis cultivation impacts, as needed.

The State Water Board holds the dual mandates of allocating surface water rights and protecting water quality. The State Water Board is the state agency with primary authority over water quality under California's Porter-Cologne Water Quality Control Act and the federal Clean Water Act. Under these authorities, the State Water Board may adopt water quality objectives, including flow objectives, and programs of implementation to achieve these objectives. California law directs the State Water Board and Regional Water Boards (collectively Water Boards) to adopt water quality control plans and policies that identify existing and potential beneficial uses of waters of the state and establish water quality objectives to protect these uses.

This Policy meets the requirements of Water Code section 13149(b)(1) and is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to California Code of Regulations, title 14, section 15308[5].

The State Water Board allocates water through an administrative system that is intended to maximize the beneficial uses of water while protecting the public trust, serving the public interest, and preventing the waste and unreasonable use or method of diversion of water. The Water Boards implement water quality control plans through both water rights- and water quality-related programs. For example, Water Code section 1258 requires the State Water Board to consider water quality control plans when acting upon applications to appropriate water and the State Water Board may impose such conditions as it deems necessary to implement such plans. Water Code section 13263(a) requires waste discharge requirements to implement applicable water quality control plans, including terms to ensure that water quality objectives will be met. In issuing water quality certifications and waste discharge requirements, the Water Boards include conditions necessary to ensure the activities will comply with applicable water

[5] California Code of Regulation section 15308. Actions by Regulatory Agencies for Protection of the Environment. *Class 8 consists of actions taken by regulatory agencies, as authorized by state or local ordinance, to assure the maintenance, restoration, enhancement, or protection of the environment where the regulatory process involves procedures for protection of the environment. Construction activities and relaxation of standards allowing environmental degradation are not included in this exemption.*

quality objectives, including flow objectives [6]. The State Water Board also may implement flow objectives by specifying minimum bypass flows as a condition of a water right.

## GEOGRAPHIC AREA COVERED BY POLICY

California is a large and geographically diverse state, covering 163,696 square miles, and spanning over 800 miles of coastline. California's multiple mountain ranges and valleys result in highly variable climate, precipitation and drainage patterns. To account for the state's size and geographic diversity, this Policy designates 14 Cannabis Cultivation Policy regions: Klamath, Upper Sacramento, North Eastern Desert, North Coast, Middle Sacramento, Southern Sacramento, North Central Coast, Tahoe, South Central Coast, San Joaquin, Mono, Kern, South Coast, and South Eastern Desert (Figure 1). This Policy establishes water quality and instream flow Requirements statewide. These include instream flow requirements that must be met or exceeded at specific compliance flow gages when water is being diverted for cannabis cultivation. Compliance gage assignments have been developed for nine of the 14 regions as follows: Klamath, Upper Sacramento, North Coast, Middle Sacramento, Southern Sacramento, North Central Coast, South Central Coast, San Joaquin, and South Coast. It is anticipated that compliance gage assignments for the remaining five regions will be developed, as resources allow, and added to the final Policy prior to adoption by the State Water Board.

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[6] *See* Water Code §13377; Cal. Code of Regs., tit. 23, § 3859.

Figure 1. Cannabis Cultivation Policy Regional Boundaries
Code
Region
1 Klamath
2 Upper Sacramento
3 North Eastern Desert
4 North Coast
5 Middle Sacramento
6 Southern Sacramento
7 North Central Coast (AB2121 Policy Area)
8 Tahoe
9 South Central Coast
10 San Joaquin
11 Mono
12 Kern
13 South Coast
14 South Eastern Desert
PRIORITY REGION
Oregon
Nevada
Arizona
Mexico
Crescent City
Yreka
Alturas
Eureka
Weaverville
Redding
Susanville
Red Bluff
Quincy
Willows
Oroville
Downeville
Ukiah
Nevada City
Colusa
Yuba City
Auburn
Markleeville
Placerville
Woodland
Sacramento
Santa Rosa
Fairfield
Napa
Jackson
San Andreas
Martinez
Stockton
Sonora
Oakland
Modesto
Mariposa
Redwood City
San Jose
Merced
Santa Cruz
Hollister
Salinas
Madera
Fresno
Independence
Hanford
Visalia
Bakersfield
San Luis Obispo
Santa Barbara
Ventura
San Bernardino
Los Angeles
Riverside
Santa Ana
San Diego
El Centro
Sources: ESRI, USGS, NOAA
SWRCB
Map By: CA State Water Board
J. Sanchez 6/9/2017
Scale 1:4,500,000
0 20 40 60 80
Miles
Water Boards

# REQUIREMENTS FOR CANNABIS CULTIVATION

The State Water Board developed these Requirements in consultation with CDFW and CDFA. The Requirements are divided into five main categories, which are located in the following sections of Attachment A:

- Section 1. General Requirements and Prohibitions, and Cannabis General Water Quality Certification
- Section 2. Requirements Related to of Water Diversions and Waste Discharge for Cannabis Cultivation
- Section 3. Numeric and Narrative Instream Flow Requirements (including Gaging)
- Section 4. Watershed Compliance Gage Assignments
- Section 5. Planning and Reporting

General Requirements and Prohibitions implement existing State Water Board authorities and address issues such as compliance with state and local permits, discharge prohibitions, riparian setbacks, protection of tribal cultural resources, and the Water Boards' right to access properties for inspections.

The Requirements related to water diversion and waste discharge of for cannabis cultivation cover the following 12 best practicable treatment or control categories:

- riparian and wetland protection and management;
- water diversion, storage, and use;
- irrigation runoff;
- land development and maintenance, erosion control, and drainage features;
- soil disposal;
- stream crossing installation and maintenance;
- fertilizer and soil use and storage;
- pesticide and herbicide application and storage;
- petroleum products and other chemical use and storage;
- cultivation-related waste disposal;
- refuse and human waste disposal; and
- winterization.

The numeric and narrative instream flow Requirements address water quality and quantity through the establishment of flow Requirements that include three elements: (a) dry season forbearance period, (b) numeric flow Requirements (bypass) during the wet season (diversion period), and (c) narrative flow Requirements. Instream flow Requirements also include dry season flow Requirements and provisions for the imposition of a forbearance period for cannabis groundwater diversions in areas where such restrictions are necessary. Section 3 includes Requirements for gage installation in areas where the density of cannabis cultivation and limited water availability may have a localized negative impact on instream flows in areas with high resource value.

The Watershed compliance gage assignments section includes the compliance gage instream flow Requirements for all the regions and the compliance gage watershed assignments for the nine priority regions. The following discussion provides an overview of the development of instream flow Requirements and compliance gage assignments for the numeric flow Requirements.

## Flow and Gaging Requirements

The narrative instream flow Requirements in Section 3 of Attachment A apply to cannabis cultivators throughout the State. The numeric instream flow Requirements are developed at compliance gages statewide.

### Surface Water Diversion Forbearance Period

Absent restrictions on water diversion, the individual and cumulative effects of water diversions for cannabis cultivation during the dry season are likely to significantly decrease instream flow and, in some instances, reduce hydrologic connectivity or completely dewater the stream. Minimum flows that provide habitat connectivity are needed to maintain juvenile salmonid passage conditions in late spring and early summer. Instream flows are also needed to maintain habitat conditions necessary for juvenile salmonid viability throughout the dry season, including adequate dissolved oxygen concentrations, low stream temperatures, and high rates of invertebrate drift from riffles to pools. Further, many species depend on spring recession flows as migratory or breeding ques. The State Water Board is requiring a surface water diversion forbearance period to ensure adequate flows are maintained throughout the dry season and protect aquatic species, aquatic habitat, and water quality.

### Wet Season Surface Water Instream Flow Requirements

Minimum instream flow requirements during the wet season are needed for the protection of aquatic species life history needs. For threatened and endangered anadromous salmonids, minimum flows are needed to address life history needs, such as:

1. maintaining natural abundance and availability of spawning habitat;
2. minimizing unnatural adult exposure, stress, predation, and delay during adult spawning migration; and
3. sustaining high quality and abundant juvenile salmonid winter rearing habitat.

To meet the timeline, scale, and purpose of this Policy, the State Water Board, in consultation with CDFW, has determined that the Tessmann Method is the best methodology to develop interim instream flow requirements. The Tessmann Method develops instream flow requirements by using percentages of historical mean annual and mean monthly natural streamflow[7]. . For the development of long-term instream flow requirements, the State Water Board, in consultation with CDFW, will evaluate other scientifically robust methods that are more reflective of regional variability and the needs of target species. The State Water Board applied the Tessmann Method to a predicted historical flow data set sourced from a flow modeling effort conducted by the United States Geological Survey (USGS) in cooperation with The Nature Conservancy and Trout Unlimited[8] (USGS flow modeling data). The interim instream flow Requirements were calculated for compliance gages throughout the State. The Tessmann Method and the USGS flow modeling data allow for instream flow requirements to be calculated at additional compliance points throughout the State. This Policy allows the State Water Board to use the Tessmann Method and the USGS flow modeling data to calculate or adjust a flow requirement, as needed, throughout the state.

[7] In general, during the wet season the Tessmann Method compares 40 percent of the mean monthly flow to 40 percent of the mean annual flow and whichever is greater is the flow requirement for that given month (Tessmann 1979).

[8] The USGS flow modeling effort developed empirical flow models that predict the natural (unaffected by land use or water management) monthly stream flows from 1950 to 2012 for the majority of the USGS National Hydrologic Database stream reaches in California (Carlisle, et. al. 2016).

### Maintain High Flow Events

To preserve the annual first flush flow event, the surface water diversion period for cannabis cultivation will not occur until the real-time daily average flow is greater than the minimum monthly instream flow Requirement at a compliance gage for seven consecutive days or after December 15 when flows are greater than the numeric flow Requirement, whichever occurs first. The State Water Board will monitor other high flow events that occur throughout the wet season to evaluate whether additional requirements are needed to maintain high flow variability during other periods of the wet season.

### Groundwater Requirements

To address potential impacts of groundwater diversions on surface flow, the State Water Board's Deputy Director for Water Rights (Deputy Director) may require a forbearance period for cannabis groundwater diversions in areas where such restrictions are necessary to protect instream flows. Such areas may include watersheds with: high surface water-groundwater connectivity; large numbers of cannabis groundwater diversions; and/or groundwater diversions in close proximity to streams. A low flow threshold was developed at each compliance gage[9] during the surface water forbearance period (dry season) to inform the need for additional actions to address impacts associated with cannabis groundwater diversions. The low flow threshold was established in consultation with CDFW. The low flow threshold is established using the USGS flow modeling data to calculate mean monthly flows and applying the New England Aquatic Base Flow Standard (ABF Standard) methodology at the compliance gages in the nine priority regions. The low flow threshold represents the minimum flow that should be in streams during all water type years to support aquatic ecosystems, including juvenile salmonid migration and rearing and water quality. This Policy allows the State Water Board to apply the ABF Standard to the USGS flow modeling data to calculate a low flow threshold Requirement at additional compliance points, as needed, throughout the State. The State Water Board will monitor instream flows during the dry season and evaluate the number and location of cannabis groundwater diversions to determine whether imposition of a groundwater forbearance period is necessary. To address potential localized effects of groundwater diversions on surface water flow, the State Water Board will also monitor where significant numbers of surface water diverters are switching to groundwater diversions to evaluate whether imposition of a groundwater forbearance period is necessary. The State Water Board will notify cannabis cultivators of the possibility that a groundwater forbearance period may be imposed so that the cultivators can install storage, coordinate diversions, take measures to secure alternate water supplies, or identify other measures to address the low flow condition.

### Compliance Gages and Requirements

Compliance gage assignments have been developed for watershed areas within nine priority regions (see Figure 1, Cannabis Cultivation Policy Regional Boundaries). Numeric instream flow Requirements are applied at a subset of existing gages reported on two websites: (1) the USGS – National Water Information System (NWIS)[10]; or (2) California Department of Water Resources (DWR) – California Data Exchange Center (CDEC)[11]. Watershed areas that do not have existing gages are assigned a compliance gage for a different location in the same watershed or for a nearby watershed with similar flow characteristics. Cannabis cultivators in ungaged watersheds may be required to install a gage if information indicates that use of the assigned gage does not adequately protect instream flows. Cannabis cultivators in watersheds

[9] The low flow threshold was developed using the USGS flow modeling data.
[10] https://waterdata.usgs.gov/ca/nwis/rt, viewed May 19, 2017.
[11] https://cdec.water.ca.gov/, viewed May 19, 2017.

without an assigned gage may be required to install a gage if information indicates that a gage is necessary to adequately protect instream flows. The State Water Board will monitor where cannabis cultivation diversions are located to track areas where locally concentrated cannabis cultivation water diversions within a watershed may adversely affect instream flows.

Many dams in California have existing instream flow requirements through the Federal Energy Regulatory Commission licensing program or through Biological Opinions issued by the National Marine Fisheries Service or the United States Fish and Wildlife Service, or through water right decisions. Cannabis cultivators shall comply with either existing instream flow Requirements or the Tessmann instream flow Requirements, whichever is greater.

The instream flow Requirement compliance gages are located in areas that are generally representative of the water availability and total demand occurring upstream of the gaging location or in a similar watershed. However, impacts may still occur in areas where there is significant localized cannabis cultivation compared to water availability or where the compliance gage does not accurately reflect the demand in a paired watershed. To help ensure diversion of water for cannabis cultivation does not negatively impact the flows needed for fish spawning, migration, and rearing, or the flows needed to maintain natural flow variability, the cannabis cultivator shall maintain a minimum bypass of at least 50% of the streamflow past the cannabis cultivator's point of diversion, in addition to the applicable numeric instream flow Requirements.

# POLICY IMPLEMENTATION AND COMPLIANCE

## Overview

The Requirements established by this Policy will be incorporated and implemented through the statewide Cannabis General Order, any waste discharge requirements addressing cannabis cultivation activities adopted by a Regional Water Board, Cannabis SIUR, Water Rights Permitting and Licensing Program, and CDFA's CalCannabis Cultivation Licensing Program.

## Cannabis Waste Discharge Requirements General Order (Cannabis General Order)

Water Code section 13260 requires that any person discharging waste or proposing to discharge waste that could affect the quality of the waters of the state must file a report of waste discharge to obtain coverage under waste discharge requirements (WDRs) or a waiver or WDRs. Water Code section 13263(a) requires that WDRs must implement applicable water quality control plans, taking into account the beneficial uses to be protected, applicable water quality objectives, and the need to prevent a condition of pollution or nuisance.

Water Code section 13263(i) authorizes the State Water Board to prescribe general WDRs for a category of discharges if the State Water Board determines that all of the following criteria apply to the discharges in that category: the discharges are produced by the same or similar operations; the discharges involve the same or similar type of waste; the discharges require the same or similar treatment standards; and the discharges are more appropriately regulated under general WDRs than individual WDRs. Water Code section 13146 requires that WDRs comply with state policy for water quality control. The Cannabis General Order will implement this Policy and the legal authorities described above.

## Applicability, Tier Designation, and Threat to Water Quality

The Cannabis General Order will provide a statewide tiered approach for permitting discharges and threatened discharges of waste from cannabis cultivation and associated activities, establish a personal use exemption standard, and provide conditional exemption criteria for activities with a low threat to water quality. Tiers are defined by the amount of disturbed area. The disturbed area indicates the threat to water quality because level of threat is proportional to the area of disturbed soil, the amount of irrigation water used, the potential for storm water runoff, and the potential impacts to groundwater (e.g., the use of fertilizers or soil amendments, the possible number of employees on site, etc.).

The criteria for the tier structure consist of three exemptions and two tiers, as follows:

a. Personal use exempt cannabis cultivators are very small cultivators that are conditionally exempt from the Cannabis General Order. (See the Exemptions for Certain Cultivation Activities section.)

b. Certain indoor cultivation activities are conditionally exempt from the Cannabis General Order. (See the Exemptions for Certain Cultivation Activities section.)

c. Conditionally exempt cannabis cultivators that cultivate cannabis commercially and disturb less than 2,000 square feet. (See the Exemptions for Certain Cultivation Activities section.)

d. Tier 1 cannabis cultivators have a disturbed area greater than 2,000 square feet and less than 1 acre (43,560 square feet).

e. Tier 2 cannabis cultivators have a disturbed area equal to or greater than 1 acre.

## Determination of Total Disturbed Area

To determine total disturbed area for the purpose of tier determination, cannabis cultivators shall consider the following:

a. Cannabis cultivators that cultivate in multiple areas within a parcel or contiguous parcels shall add all the disturbed areas to calculate the total disturbed area. For example, a cannabis cultivator that operates two cultivation areas that each disturb 1,100 square feet must report a disturbance of 2,200 square feet and is not exempt from permitting requirements. Cannabis cultivators that cultivate cannabis on non-contiguous parcels must obtain regulatory coverage for each parcel.

b. Existing access roads that were constructed prior to establishment of cultivation activities that were designed, constructed, and are maintained consistent with the guidance presented in the *Handbook for Forest, Ranch, and Rural Roads* (Road Handbook) are not considered a disturbed area for the purpose of tier determination under the Cannabis General Order. However, existing access roads are included as areas requiring Best Practicable Treatment or Control (BPTC) measure maintenance activities to prevent further impairment to water quality.

c. Areas where plant material has been removed for the purpose of wildfire suppression and where the plant material will recover with seasonal precipitation, are not considered disturbed.

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## Risk Determination

Cannabis cultivators that must register (conditionally exempt) or enroll (Tier 1 or Tier 2) under the Cannabis General Order shall characterize the risk designation based on the slope of disturbed areas and the proximity to a water body.

The Cannabis General Order provides criteria to evaluate the threat to water quality based on:

a. Slope of disturbed area: Increased slopes may be associated with decreased soil stability, especially when associated with vegetation removal. Storm water and excess irrigation water are more likely to runoff and discharge off-site from sloped surfaces.

b. Proximity to a surface water body: Riparian setbacks from surface water bodies generally reduce impacts to water quality. Disturbed areas within the riparian setbacks are more likely to discharge waste constituents to surface water, therefore, any sites that cannot meet the riparian setback Requirements are considered to be high risk sites. Refer to the Attachment A for riparian setback Requirements.

For each site, risk determination is done based on the characteristic that poses the greatest threat to water quality. For example, if a site has multiple cultivation areas and one of the cultivation areas is located on a slope greater than 30 percent and less than 50 percent, all the cultivation areas will be classified as moderate risk.)

A summary of risk designation is presented below:

**Table 1. Summary of Risk Designation**

| Low Risk | Moderate Risk | High Risk |
|---|---|---|
| • No portion of the disturbed area is located on a slope greater than 30 percent, and<br>• All of the disturbed area complies with the riparian setback Requirements. | • Any portion of the disturbed area is located on a slope greater than 30 percent and less than 50 percent, and<br>• All of the disturbed area complies with the riparian setback Requirements. | • Any portion of the disturbed area is located within the riparian setback Requirements. |

## Exemptions for Certain Cultivation Activities

Certain cultivation activities are exempt from the requirement to register (conditionally exempt) or enroll (tiers) under the Cannabis General Order; however, the exemptions do not limit the Water Boards authority to inspect the site, evaluate the conditional exemption status, or evaluate other water quality or water right regulatory requirements. Some facilities that are exempt from the Cannabis General Order are subject to the Policy and other wastewater discharge permitting requirements (e.g., indoor cultivation activities that discharge to an onsite wastewater treatment system).

## Personal Use Exemption

Cultivation operations that qualify for a personal use exemption from the Cannabis General Order are those that are consistent with Health and Safety Code sections 11362.77, (medical marijuana) or Health and Safety Code section 11362.2 (non-medical marijuana) and

subsequent revisions of the statutes, disturb an area (in aggregate) less than 1,000 square feet, and comply with the additional conditions below. These cultivation activities are exempt from requirements to obtain CDFA cannabis cultivation licenses because they are not a commercial activity, and also present a lower to water quality and thus are not required to submit any application information to enroll or register under the Cannabis General Order. The 1,000 square feet conditional exemption criteria provides sufficient area for outdoor cultivation of six mature plants for non-medical (recreational) use, or 500 square feet of cannabis plant canopy, as allowed, for medical cultivation purposes.

The exemptions apply per parcel or contiguous parcels; no coalitions, cooperatives, or other combination of cultivation activities can claim the personal use exemption for activities on the same parcel. The personal use exemption shall not apply if the cannabis cultivator fails to comply with all applicable conditions, including the non-commercial activity requirement. If the personal use exemption does not apply, the cannabis cultivator shall contact the Regional Water Board to determine if the activity is subject to the conditional exemption described below, or if the cannabis cultivator must register as a Tier 1 or Tier 2 cannabis cultivation site.

To qualify for the personal use exemption, a cannabis cultivator must comply with all of the following, if applicable:

a. The cultivation area shall be contiguous (all located in one area);

b. The cultivation area shall comply with the riparian setback Requirements in Attachment A of this Policy;

c. No part of the disturbed area shall be located on land with a slope greater than 20 percent; and

d. The cannabis cultivator shall comply with this Policy and implement all applicable Requirements listed in Attachment A of this Policy.

The personal use exemption in the Cannabis General Order does not eliminate other potential requirements such as the Requirement to obtain authorization for water diversion.

### Conditional Exemption

Cannabis cultivation activities that disturb an area (in aggregate) less than 2,000 square feet on any one parcel or on contiguous parcels managed as a single operation and that comply with all of the additional cultivation area criteria listed below are conditionally exempt from enrolling under the Cannabis General Order. However, to obtain documentation of the conditionally exempt status (which is necessary to obtain a CDFA cultivation license), exempt cannabis cultivators must submit information to register under the Cannabis General Order. The 2,000 square feet conditional exemption criterion allows sufficient area for outdoor cultivation for small commercial activities. Facilities with larger disturbed areas are an inherently higher threat to water quality and are subject to additional regulatory oversight. The conditional exemption applies per parcel or contiguous parcels; no coalitions, cooperatives, or other combination of cannabis cultivation activities can claim the conditional exemption for activities on the same parcel. To be conditionally exempt, a cannabis cultivator must comply with all of the following:

a. The cultivation area shall be contiguous (all located in one area);

b. The cultivation area shall comply with the riparian setback Requirements in Attachment A of this Policy;

c. No part of the disturbed area shall be located on land with a slope greater than 20 percent; and

d. The cannabis cultivator shall comply with this Policy and implement all applicable Requirements listed in Attachment A of this Policy.

The conditional exemption shall not apply if the cannabis cultivator fails to comply with the applicable conditions (a-d above). Conditional exemption to enroll under the Cannabis General Order does not alter any other legal requirement (e.g., limitations on sales, distribution, or donations of cannabis). To obtain documentation of conditionally exempt status, such cannabis cultivators must submit information to register under the Cannabis General Order. Refer to the *Application Process and Fees* section of the Cannabis General Order for information on the Cannabis General Order's registration requirements.

### *Exemption for Indoor Cultivation Activities*

Indoor cannabis cultivation may be performed using hydroponic growing systems, soil, or other growth media. To maintain suitable growing conditions, wastewater is discharged from hydroponic systems when the irrigation water contains excessive salinity or nutrients. Irrigation tail water is generated when excess water drains from the growth media. Irrigation tail water or hydroponic wastewater may contain nutrients (e.g., phosphate or nitrate), salinity constituents (e.g., sodium, chloride, potassium, calcium, sulfate, magnesium), and other constituents (e.g., iron, manganese, zinc, molybdenum, boron, and silver)[12]. Other sanitation based wastewaters may also be generated at indoor cannabis cultivation sites. These miscellaneous industrial wastewaters may contain biocides, bleach mixtures, or other chemical waste streams.

Cannabis cultivation activities that occur within a structure with a permanent roof, a permanent relatively impermeable floor (e.g., concrete or asphalt paved), and that discharge all industrial wastewaters generated to a community sewer system consistent with the sewer system requirements, are exempt from the Cannabis General Order and permitting requirements. (Water Code section 13260(a)(1).) However, to obtain documentation of this exempt status, (necessary to obtain a CDFA commercial cannabis cultivation license) such cannabis cultivators must submit information to register under the Cannabis General Order. Refer to the *Application Process and Fees* section of the Cannabis General Order for information on the Cannabis General Order's registration requirements.

Discharges of irrigation tail water, hydroponic wastewater, or other miscellaneous industrial wastewaters from indoor cannabis cultivation activities to an on-site wastewater treatment system (such as a septic tank and leach field), to land, or to surface water must obtain separate regulatory authorization (e.g., WDRs, conditional waiver of WDRs, or other permit mechanism) to discharge the wastewater. Refer to the *Application Process and Fees* section of the Cannabis General Order for information on the Cannabis General Order's registration requirements.

### Application Process and Fees

Personal use exempt cannabis cultivators meeting the criteria described in the *Exemptions for Certain Cultivation Activities* section do not need to register with the State Water Board. Indoor cultivation sites and conditionally exempt sites are required to register with the State Water Board and pay an application fee.

[12]City of Littleton – City of Englewood Pretreatment Pipeline. Third Quarter 2011. "Medical Marijuana – an Exploding New Industry." Webpage: http://www.lewwtp.org/home/showdocument?id=5674. Accessed 17 January 2017.

New facilities that are classified as either Tier 1 or Tier 2 are required to enroll under the Cannabis General Order, apply on-line and pay an application fee, and an annual fee. Details regarding the on-line application process are described in the Cannabis General Order. The application fee serves as the first year's annual fee; cannabis cultivators will be billed on an annual basis.

Sites that pose a higher threat to water quality (e.g., disturb a larger area, located on a steeper slope, or located close to a surface water body) require a greater level of regulatory oversight, which translates to higher costs to achieve water quality protection. High risk sites (any portion of the disturbed area is located within the riparian setback Requirements), with the exception of activities authorized by CDFW with a Lake or Streambed Alteration Agreement or under a Clean Water Act section 401/section 404 permit (e.g. watercourse crossing, installation of diversion works), will be assessed the high-risk fee until the activities comply with the riparian setback Requirements. The Cannabis General Order includes a compliance schedule to achieve compliance with riparian setback Requirements. It is the cannabis cultivator's responsibility to notify the Regional Water Board of compliance with the riparian setback Requirements to reassess the annual fee. If the site is unable to meet the compliance schedule contained in the Cannabis General Order for complying with the riparian setback Requirements, the Regional Water Board may issue a site-specific enforcement order and compliance schedule.

### Third Party Programs

Some Regional Water Boards may approve third party programs to assist cannabis cultivators with enrollment and compliance with the Cannabis General Order. Some cannabis cultivators may elect to designate a Regional Water Board approved third party to represent them in issues related to application and compliance with the Cannabis General Order. The cannabis cultivator, property owner, and third party shall all be identified in the Cannabis General Order application. This Policy requires the cannabis cultivator to immediately notify the appropriate Regional Water Board if the third party is changed or terminated.

## Cannabis Small Irrigation Use Registration

Since January 1, 1989, the Water Rights Registration Program has been available for expedited acquisition of appropriative water rights for certain small projects. In accordance with the Water Code section 1228, water right registrations are available for small irrigation, small domestic, and livestock stockpond users. SIURs are applicable to irrigated crops for sale or trade, including commercial cannabis cultivation once general conditions are adopted. Small Domestic Registrations (SDR) may be used for small, incidental watering and personal gardens and are not subject to this Policy (SDRs may not be used for obtaining CDFA commercial cannabis cultivation licenses). Livestock stockpond registrations are not available for cannabis cultivation.

Although cultivators often have multiple options to establish a water right for their water supply, the State Water Board anticipates that many cultivators will choose the Cannabis SIUR because it is a faster and easier way to obtain a water right in comparison to the application process for a new appropriative water right, which can take many years. In accordance with this Policy, cultivators who rely on surface water to irrigate their cannabis operation are required to divert to storage during the wet season (portions of fall/winter/spring) and forebear from diverting during the dry season (summer/portions of fall). Because riparian water rights do not allow for water storage, riparian water right holders who intend to cultivate cannabis will also be required to obtain an appropriative (storage) water right (most likely through the Cannabis SIUR) in order to comply with the Policy. Cultivators should be aware that the Cannabis SIUR and other appropriative water rights may not be available in certain watersheds/streams, including

streams that are or may become designated as Fully Appropriated Streams or Wild and Scenic Rivers.

The Requirements established in this Policy serve as General Conditions for the Cannabis SIUR water right registrations for commercial cannabis cultivation statewide. Cultivators will submit their registration filing (application), have the ability to make payments, and receive a water right registration certificate through the State Water Board's online portal. Cultivators will be subject to all terms and conditions set forth in this Policy as well as any additional conditions assigned by CDFW.

## CDFA's CalCannabis Cultivation Licensing Program

In accordance with California Business and Professions Code (BPC) sections 26012, 26013, and 26060, CDFA is establishing a commercial cannabis cultivation licensing program. BPC section 26051.5(b)(7) requires the CDFA to consult with the State Water Board on the source or sources of water the applicant will use for cultivation. BPC section 26060.1(b)(1) requires that CDFA include in any license, conditions as requested by the State Water Board, including but not limited to the principles, guidelines, and requirements established under Section 13149 of the Water Code.

Compliance with the Requirements of this Policy is a pre-requisite for obtaining a CDFA Cannabis Cultivators license. The law requires that cannabis cultivators provide evidence of compliance with the Water Boards Requirements (or certification by the appropriate Water Board stating a permit is not necessary) as part of their application for a CDFA cannabis cultivation license. The State Water Board has primary enforcement responsibility for the Requirements and shall notify CDFA of any enforcement action taken[13].

## Continuing Authority to Amend Policy

Pursuant to Water Code Section 13149(a)(2), the State Water Board has continuing authority to amend this Policy as it deems reasonably necessary.

## Instream Flow Dedications

Water Code section 1707 allows any person entitled to the use of water, whether based upon an appropriative, riparian, or other right, to petition the State Water Board for a change for purposes of preserving or enhancing wetlands habitat, fish and wildlife resources, or recreation in, or on, the water.

## Local Cooperative Solutions

If CDFW enters into an agreement with one or more cannabis cultivators and determines that the agreement provides watershed-wide protection for the fishery that is comparable to or greater than the instream flow Requirements provided by this Policy, the cannabis cultivator or cultivators may request approval from the Deputy Director for to implement the agreement in place of the instream flow Requirements (numeric, narrative, and forbearance) in this Policy. The Deputy Director may approve the request subject to such conditions, including reporting requirements, that the Deputy Director deems necessary to prevent injury to other legal users of water or the environment.

Other local cooperative solutions may also be proposed to the Deputy Director as an alternative means of reducing water use to preserve the required instream flows. Requests

[13] Water Code section 13149(b)(5)

to implement local cooperative solutions may be submitted to the Deputy Director at any time. Local cooperative solutions may include proposals to coordinate diversions or share water. Cannabis cultivators may also submit a local cooperative solution to the Deputy Director that request to use or install, maintain, and operate a local gage and move the flow Requirement compliance point to that gage location. The Deputy Director may approve a request, or approve it subject to any conditions that the Deputy Director determines to be appropriate, if the Deputy Director determines:

(a) The continued diversion is reasonable;

(b) That other users of water will not be injured;

(c) That the relevant minimum instream flows identified in this Policy will be met; and

(d) Gages used as compliance points will be installed, maintained, and operated in accordance with the gage installation, maintenance, and operation Requirements in Section 3 of Attachment A of this Policy.

Diversions in violation of a local cooperative solution or agreement approved by the Deputy Director are subject to enforcement as a violation of this Policy. Notice of agreements, local cooperative solutions, and decisions under this section will be posted as soon as practicable on the State Water Board's cannabis webpage. The Deputy Director may issue a decision under this section prior to providing notice. Any interested person may file an objection to the proposed agreement, proposed local cooperative solution, or decision. The objection shall indicate the manner of service upon the certifier or petitioner. The State Water Board will consider any objection, and may hold a hearing thereon, after notice to all interested persons.

### Tribal Authority Savings Clause

Nothing in this Policy shall be construed to amend or modify in any way the authority of California Native American tribes to regulate cannabis cultivation on Tribal lands recognized as "Indian country" within the meaning of title 18, United States Code, section 1151.

## ENFORCEMENT

Compliance with this Policy is mandatory to ensure that the diversion of water and discharge of waste associated with cannabis cultivation does not have a negative impact on water quality, aquatic habitat, riparian habitat, wetlands, or springs. Timely and appropriate enforcement is critical to ensure that cannabis cultivators enroll under the regulatory framework and anticipate, identify, and correct any violations. Enforcement action may be taken against cultivators who continue to grow cannabis in violation of state law and against cultivators who enroll in regulatory programs but fail to fully comply with the Requirements. Appropriate penalties and other consequences for violations prevent cultivators that do not comply with the Requirements from obtaining an unfair competitive advantage and help ensure public confidence in the regulatory framework.

### Continuing Authority to Amend Water Rights

The State Water Board has continuing authority to amend or modify water right permits and licenses pursuant to Water Code sections 100 and 275. If, after investigation, the State Water Board determines that a permitted diversion results in an adverse impact to public trust resources or results in a waste or unreasonable use or unreasonable method of use or method of diversion of water, the State Water Board may modify a permit or license term or may adopt additional requirements in order to protect the public trust, ensure that the waste is abated, and

ensure that the diversion and use of water is reasonable. Similarly, the State Water Board may modify existing permits or licenses if the State Water Board determines that such modification is necessary to meet water quality objectives contained in water quality control plans or policies for water quality control established or modified pursuant to Division 7 (commencing with section 13000) of the Water Code. Such a modification will be made after providing affected permit and license holders with any legally required notice, hearing or other procedures.

## Prohibition Against Waste and Unreasonable Use of Water

The State Water Board has continuing authority under Water Code sections 100 and 275 to enforce the requirements of the California Constitution, Article X, section 2, which directs that the water resources of the state be put to beneficial use to the fullest extent, and that water not be wasted or unreasonably used. It further provides that rights to the use of water are limited to such water as is reasonably required for the beneficial use served, and does not extend to the waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of the water.

The reasonable use doctrine applies to both surface water and groundwater, and it applies irrespective of the type of water right held by the diverter or user. (*Peabody v. Vallejo* (1935) 2 Cal.2d 351, 366-367.) What constitutes an unreasonable use, method of use, or method of diversion depends on the facts and circumstances of each case. (*People ex rel. State Water Resources Control Board v. Forni* (1976) 54 Cal.App.3d 743, 750.) Under the reasonable use doctrine, water right holders may be required to endure some inconvenience or to incur reasonable expenses. (*Id.* at pp. 751-752.) The State Water Board's continuing authority includes the power to enact regulations that preclude unreasonable use. (Wat. Code § 1058; Light v. State Water Resources Control Board (2014) 226 Cal.App.4th 1463, 1482.)

In light of limited available water supply and the need for water to protect public trust resources, the State Water Board has determined that it is a waste and unreasonable use of water under Article X, section 2 of the California Constitution to: 1) divert or use water for cannabis cultivation in a manner inconsistent with this Policy, regardless of water right seniority; 2) to divert or use water for cannabis cultivation, where prohibited by State law, this Policy, on public lands, or on tribal land without authorization; and 3) overwater cannabis plants and cause runoff.

If, after investigation, the State Water Board determines that a water diversion is wasteful or constitutes an unreasonable use, unreasonable method of use, or unreasonable method of diversion of water, the State Water Board may require a person who diverts and uses water to comply with measures to abate the waste or ensure the reasonable use of water, method of use, and method of diversion. Such a requirement will be adopted subject to applicable State Water Board procedures.

## Protection of Public Trust Resources

The State Water Board has an affirmative duty to take the public trust into account in the planning and allocation of water resources, and to protect the public trust uses whenever feasible. In the exercise of that duty, the State Water Board may use its legal authority to set requirements protecting public trust resources and order water users to comply.

## Incorporation of Policy Requirements in CDFA Cultivation Licenses

Implementation of the Requirements in this Policy is not solely the purview of the Water Boards. Pursuant to Business and Professions Code section 26060.1(b)(1), CDFA will incorporate this Policy's Requirements (referenced in the statute as "principles, guidelines, and requirements") into cultivation licenses issued under its CalCannabis Cultivation Licensing Program and will consult with the State Water Board regarding their implementation.

## Watershed Enforcement Team

In addition to the Water Boards' dedicated enforcement staff, legislation[14] directed the Water Boards and CDFW to expand the scope of the Watershed Enforcement Team from its initial North Coast/Central Valley focus to address cannabis cultivation activities statewide. In addition to pursuing enforcement related to cannabis cultivation, this team also provides public outreach and education, performs site inspections, and responds to complaints.

## Enforcement Tools

The Water Boards have a variety of enforcement tools to correct noncompliance. The Policy may be implemented directly per Water Code section 1847. The Policy Requirements will be implemented through the Cannabis General Order, the Cannabis SIUR, and General Water Quality Certification for Cannabis Cultivation Activities. The following summary includes types of enforcement actions that may be taken by the Water Boards. The Water Boards will make every effort to coordinate any enforcement action among its various divisions, offices, and regions and not initiate duplicative enforcement on the same violations. The Water Boards will coordinate enforcement with other agencies where appropriate.

### Informal Enforcement

An informal enforcement action is any enforcement action taken by Water Boards staff that is not defined in statute or regulation.

#### *Verbal and Written Contacts*

An informal enforcement action can include any form of communication (verbal, written, or electronic) between Water Boards staff and a cannabis cultivator concerning an actual, threatened, or potential violation.

#### *Notice of Violation*

A Notice of Violation (NOV) letter is the most significant level of informal enforcement action for cannabis cultivators and should be used only where a violation has occurred. NOV letters must be signed by the appropriate staff and provided to the cannabis cultivator.

### Formal Enforcement

Formal enforcement actions are statute-based actions to address a violation or threatened violation of water rights and/or water quality laws, regulations, policies, plans, or orders. The actions listed below present options available for water right and/or water quality enforcement.

#### *Notice to Comply*

The Water Boards may issue a Notice to Comply for certain minor violations.

[14] Water Code section 13276(a) and Fish and Game Code section 12029(c), as established in Assembly Bill 243 (Statutes 2015, Chapter 688, Wood).

### *Order Technical Reports and Investigations*

The Water Boards may conduct investigations and require technical or monitoring reports from any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste.

### *Administrative Civil Liability*

Administrative Civil Liability (ACL) refers to monetary penalties that may be imposed by the Water Boards.

#### Supplemental Environmental Projects

The Water Boards may allow a person or entity to satisfy no more than 50 percent of the monetary assessment imposed in an ACL order by completing or funding one or more Supplemental Environmental Projects (SEPs). SEPs are projects that enhance the beneficial uses of the waters of the State, provide a benefit to the public at large, and are not otherwise required of the person or entity.

### *Cleanup and Abatement Orders*

Cleanup and Abatement Orders (CAOs) may be issued to any person who has discharged or discharges waste into the waters of the State in violation of any waste discharge requirement or other order or prohibition issued by the Water Boards, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the State and creates, or threatens to create, a condition of pollution or nuisance. The CAO requires the cannabis cultivator to clean up the waste or abate the effects of the waste, or both, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts.

### *Time Schedule Orders*

Water Boards can require the cannabis cultivators to submit time schedules that sets forth the actions the cannabis cultivators will take to address actual or threatened discharges of waste in violation of requirements.

### *Cease and Desist Orders*

To remedy water quality violations, a Regional Water Board or the State Water Board may issue a Cease and Desist Order (CDO) against the discharger. The State Water Board also may issue a CDO for water rights violations. In addition to the its general authority to issue CDOs, the State Water Board has specific legal authority to issue a CDO against any unlawful diversion or discharge for cannabis cultivation, any diversion or discharge that violates this Policy, and any cultivation activity that violates other applicable requirements that protect the environment.

### *Revocation of Water Right Permits and Licenses*

The State Water Board may revoke a water right permit, license, or registration pursuant to certain sections of the Water Code.

### *Modification or Rescission of Waste Discharge Requirements*

The Water Boards may modify or rescind waste discharge requirements (WDRs) in response to violations.

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### *Enforcement Referral*

Depending on the nature of the violation, the Water Boards may refer violations to the State Attorney General, County District Attorney, City Attorney, US Attorney, or United States Environmental Protection Agency.

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State Water Resources Control Board

# DRAFT
# Cannabis Cultivation Policy

# ATTACHMENT A

## Requirements for Cannabis Cultivation

## July 7, 2017

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# OVERVIEW

This Attachment A contains diversion and discharge Requirements for cannabis cultivation activities. The cannabis cultivator shall comply with all Requirements in this Policy, and applicable federal, state, and local laws, regulations, and permitting requirements. In the event of duplicate or conflicting requirements, the most stringent requirements shall apply. There are five main categories of cannabis cultivation Requirements to protect water quality and instream flows, which are organized into the following sections:

- Section 1. General Requirements and Prohibitions, and General Water Quality Certification for Cannabis Cultivation Activities
- Section 2. Requirements Related to Water Diversions and Waste Discharge for Cannabis Cultivation
- Section 3. Numeric and Narrative Instream Flow Requirements (including Gaging)
- Section 4. Watershed Compliance Gage Assignments
- Section 5. Planning and Reporting

## Definitions

Following are definitions of terms used in the five sections of the Requirements.

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|---|---|
| 1. | **Agronomic Rate** – the rate of application of irrigation water and nutrients to plants necessary to satisfy the plants' evapotranspiration requirements and growth needs and minimize the movement of nutrients below the plants root zone. The agronomic rate considers allowances for supplemental water (e.g., effective precipitation), irrigation distribution uniformity, nutrients present in irrigation water, leaching requirement, and plant available nitrogen. |
| 2. | **California Native American tribe** – As defined in section 21073 of the Public Resources Code: a Native American tribe located in California that is on the contact list maintained by the Native American Heritage Commission for the purposes of Chapter 905 of the Statutes of 2004. |
| 3. | **Cannabis Cultivation** – any activity involving or necessary for the planting, growing, pruning, harvesting, drying, curing, or trimming of cannabis. This term includes, but is not limited to: (1) water diversions for cannabis cultivation, and (2) activities that prepare or develop a cannabis cultivation site or otherwise support cannabis cultivation and which discharge or threaten to discharge waste to Waters of the State. |
| 4. | **Cannabis Cultivation Area** – is defined by the following:<br>a. For in-ground plants, the cultivation area is defined by the perimeter of the area planted, including any immediately adjacent surrounding access pathways.<br>b. For plants grown outdoors in containers (e.g., pots, grow bags, etc.) the cultivation area is defined by the perimeter of the area that contains the containers, including |

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| | any immediately adjacent surrounding access pathways. The area is not limited to the sum of the area of each individual container.<br><br>c. For plants grown indoors, that do not qualify for the conditional exemption under the Cannabis General Order, the cultivation area is defined by the entire area contained in the structure where cultivation occurs, excluding any area used solely for activities that are not cultivation activities (e.g., office space). Areas used for storage of materials, equipment, or items related to cannabis cultivation shall be included in the cultivation area calculation. |
| **5.** | **Cannabis Cultivation Site** – a location where cannabis is planted, grown, pruned, harvested, dried, cured, graded, or trimmed, or where any combination of these activities occurs. |
| **6.** | **Cannabis Cultivator** – any person or entity engaged in cultivating cannabis that diverts water (i.e., diverter) or discharges or threatens to discharge waste (i.e., discharger). The term includes business entities; employees; contractors; land owners; cultivators; lessees; and tenants of private land where cannabis is cultivated and of lands that are modified or maintained to facilitate cannabis cultivation. |
| **7.** | **Construction Storm Water Program** – refers to implementation of Water Quality Order 2009-0009-DWQ and National Pollutant Discharge Elimination System No. CAS000002, as amended by Order No. 2010-0014-DWQ, Order No. 2012-0006-DWQ, and amendments thereto. Cannabis cultivators whose activities disturb one or more acres of soil or whose projects disturb less than one acre but are part of a larger common pan of develop that in total disturbs one or more acres may need to obtain coverage under the Construction Storm Water Program. Construction activities covered under the Construction Storm Water Program may include clearing, grading, and disturbances to the ground such as stockpiling, or excavation, but does not include agricultural stormwater discharges, silviculture road construction and maintenance from which there is natural runoff, regular maintenance activities performed to restore the original line, grade, or capacity of a facility, or other non-point source discharges. |
| **8.** | **Day** – is the mean solar day of 24 hours beginning at midnight (12:00 am). All references to day in this Policy are calendar days. |
| **9.** | **Discharger** – any person or entity engaged in developing land for cannabis cultivation or to provide access to adjacent properties for cultivation activities and/or any person or entity engaged in the legal cultivation of cannabis that discharges or threatens to discharge waste. |
| **10.** | **Diverter** – any person or entity that diverts water from waters of the state, including surface waterbodies and groundwater. |
| **11.** | **Land Disturbance** – land areas where natural conditions have been modified in a way that may result in an increase in turbidity in water discharged from the site. Disturbed land includes areas where natural plant growth has been removed whether by physical, animal, or chemical means, or natural grade has been modified for any purpose. Land disturbance includes all activities whatsoever associated with developing or modifying land for cannabis cultivation related activities or access. Land disturbance activities include, but are not limited |

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| | to, construction of roads, buildings, water storage areas; excavation, grading, and site clearing. Disturbed land includes cultivation areas, storage areas where soil or soil amendments (e.g., potting soil, compost, or biosolids) are located. |
| **12.** | **Land Owner** – any person or entity who owns, in whole or in part, the parcel of land on which cannabis cultivation is occurring or will occur. A land owner need not be a cannabis cultivator. |
| **13.** | **Legacy Conditions** – are sites of historic activity, which may not be related to cannabis cultivation activities that may discharge sediment or other waste constituents to waters of the state. Legacy conditions are caused or affected by human activity. Implementation of corrective actions can reduce or eliminate the waste discharge. |
| **14.** | **Qualified Biologist** – an individual who possesses, at a minimum, a bachelor's or advanced degree, from an accredited university, with a major in biology, zoology, wildlife biology, natural resources science, or a closely related scientific discipline, at least two years of field experience in the biology and natural history of local plant, fish, and wildlife resources present at the Cannabis Cultivation Site, and knowledge of state and federal laws regarding the protection of sensitive and endangered species. |
| **15.** | **Qualified Professional** – Qualified Professional means:<br>**1.** individuals licensed in California under the Professional Engineer Act (e.g., Professional Engineer), Geologist and Geophysicist Act (e.g., Professional Geologist and Certified Engineering Geologist), and Professional Land Surveyors' Act (e.g., Professional Land Surveyor)[1],<br>**2.** a California Registered Professional Forester (RPF), and<br>**3.** a Qualified Storm Water Pollution Prevention Plan (SWPPP) Practitioner.<br><br>A Qualified Professional shall only perform work he/she is qualified to complete, consistent with applicable licensing and registration restrictions, and shall certify any work completed. Cannabis cultivation land development in timberland may be designed by a qualified California RPF. |
| **16.** | **Requirements -** Principles and guidelines established in accordance with Water Code section 13149 for the diversion and use of water for cannabis cultivation. Principles and guidelines include: (i) measures to protect springs, wetlands, and aquatic habitats from negative impacts of cannabis cultivation; and (ii) requirements that apply to groundwater diversions where the State Water Board determines those requirements are reasonably necessary. |
| **17.** | **Site Mitigation** – efforts to mitigate the impacts of Legacy Conditions or cannabis cultivation activities on the cannabis cultivation site or its surroundings. |
| **18.** | **Site Remediation** – efforts to restore the cannabis cultivation site and its surroundings to its pre-legacy conditions or condition before cannabis cultivation activities began, or to restore the cannabis cultivation site and its surroundings to its natural condition. |

[1] See Business and Professions Code sections 6700-6799, 7800-7887, and 8700-8805, respectively.

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| **19.** | **Slope** – shall be determined across the natural topography (preconstruction) of the disturbed land. Measure the highest and lowest elevations of the disturbed land, then measure the horizontal distance separating the highest and lowest elevations. Determine the slope using the formula below. (Multiple the ratio by 100 to find the percent value.) There may be more than one slope value if the low elevation has higher elevations in different directions. The highest slope value calculated (highest percentage numerically) is the value to be reported.<br>$$Slope = \frac{elevation\ difference}{horizontal\ distance}\ x\ 100$$<br>Slope – Value of slope expressed as a percentage.<br>Elevation difference – Report in feet to an accuracy of one inch or one tenth of a foot.<br>Horizontal distance – Report in feet to an accuracy of one inch or one tenth of a foot. |
| **20.** | **Soil Materials** – include soil, aggregate (rock, sand, or soil), potting soil, compost, manure, or biosolid. |
| **21.** | **Stabilized Areas** – consist of areas previously disturbed that have been successfully reclaimed to minimize the increase in sediment or turbidity in water discharged from the site. Areas where vehicles may travel or be parked may not considered stabilized. |
| **22.** | **Timberland** – pursuant to Public Resources Code section 4526, means land, other than land owned by the federal government and land designated by the Board of Forestry as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species, on a district basis, are defined in California Code of Regulations, title 14, section 895.1. |
| **23.** | **Tribal lands** – lands recognized as "Indian country" within the meaning of title 18, United States Code, section 1151. |
| **24.** | **Turbidity** – a measure of water clarity: how much the material suspended in water decreases the passage of light through the water. Suspended materials include soil particles (clay, silt, and sand), algae, plankton, and other substances. The turbidity test is reported in Nephelometric Turbidity Units (NTUs). |
| **25.** | **Waterbody** – any significant accumulation of water above the ground surface, such as: lakes, ponds, rivers, streams, creeks, springs, seeps, artesian wells, wetlands, and canals. |
| **26.** | **Watercourse** – a natural or artificial channel through which water flows.<br>• Perennial watercourse (Class I):<br>1. In the absence of diversions, water is flowing for more than nine months during a typical year,<br>2. Fish always or seasonally present onsite or includes habitat to sustain fish migration and spawning, and/or<br>3. Spring or seep: a place where water flows out of the ground. A spring or seep may flow the whole year or part of the year. |

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| | • Intermittent watercourse (Class II):<br>1. In the absence of diversions, water is flowing for three to nine months during a typical year, or<br>2. Water is flowing less than three months during a typical year and the stream supports riparian vegetation.<br>• Ephemeral watercourse (Class III): In the absence of diversion, water is flowing less than three months during a typical year and the stream does not support riparian vegetation or aquatic life. Ephemeral watercourses typically have water flowing for a short duration after precipitation events or snowmelt and show evidence of being capable of sediment transport. Ephemeral watercourses include channels, swales, gullies, rills, and any other drainage features that channelize and transport runoff.<br>• Other watercourses (Class IV): Class IV watercourses do not support native aquatic species and are man-made, provide established domestic, agricultural, hydroelectric supply, or other beneficial use. |
| **27.** | **Waters of the State** – any surface water or groundwater, including saline waters, within the boundaries of the state (Water Code section 13050(e)). Includes all waters within the state's boundaries, whether private or public, including waters in both natural and artificial channels. Waters of the state includes waters of the United States. |
| **28.** | **Wetland** – an area is a wetland if, under normal circumstances:<br>1. the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both;<br>2. the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and<br>3. the area's vegetation is dominated by hydrophytes or the area lacks vegetation. |
| **29.** | **Winter Period** – calendar dates from November 15 to April 1, except as noted under special County Rules in California Code of Regulations, title 14, sections 925.1, 926.18, 927.1, and 965.5. |

DRAFT

# SECTION 1 – GENERAL REQUIREMENTS AND PROHIBITIONS

The following general requirements and prohibitions apply to any cannabis cultivator.

## General Requirements and Prohibitions

| No. | TERM |
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| 1. | Prior to commencing any cannabis cultivation activities, including cannabis cultivation land development or alteration, the cannabis cultivator shall comply with all applicable federal, state, and local laws, regulations, and permitting requirements, as applicable, including but not limited to the following:<br>• The Clean Water Act (CWA) as implemented through permits, enforcement orders, and self-implementing requirements. When needed per the requirements of the CWA, the cannabis cultivator shall obtain a CWA section 404 (33 U.S.C. § 1344) permit from the United States Army Corps of Engineers (Army Corps) and a CWA section 401 (33 U.S.C. § 1341) water quality certification from the State Water Board or the Regional Water Board with jurisdiction. If the CWA permit cannot be obtained, the cannabis cultivator shall contact the appropriate Regional Water Board or State Water Board prior to commencing any cultivation activities. The Regional Water Board or State Water Board will determine if the cannabis cultivation activity and discharge is covered by the Requirements in the Policy and Cannabis General Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities (Cannabis General Order).<br>• The California Water Code as implemented through applicable water quality control plans (often referred to as Basin Plans), waste discharge requirements (WDRs) or waivers of WDRs, enforcement orders, and self-implementing requirements issued by the State Water Resources Control Board (State Water Board) or Regional Water Quality Control Boards (Regional Water Boards).<br>• All applicable state, city, county, or local regulations, ordinances, or license requirements including, but not limited to those for cannabis cultivation, grading, construction, and building.<br>• All applicable requirements of the California Department of Fish and Wildlife (CDFW).<br>• All applicable requirements of the California Department of Forestry and Fire Protection (CAL FIRE), including the Board of Forestry.<br>• California Environmental Quality Act and the National Environmental Policy Act. |
| 2. | If applicable, cannabis cultivators shall obtain coverage under all of the following:<br>a. The State Water Board's Construction Storm Water Program and any successors, amendments, or revisions thereto when applicable.<br>b. Activities performed in areas subject to California Code of Regulations title 14, |

| No. | TERM |
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| | Chapter 4. Forest Practices (Forest Practice Rules) shall be implemented consistent with the permitting, licensing, and performance standards of the Forest Practice Rules, and the Requirements of this Policy, whichever is more stringent. |
| **3.** | The cannabis cultivator shall consult with CDFW to determine if a Lake and Streambed Alteration Agreement (LSA Agreement) is needed prior to commencing any activity that may substantially:<br>• divert or obstruct the natural flow of any river, stream, or lake;<br>• change or use any material from the bed, channel, or bank of any river, stream, or lake; or<br>• deposit debris, waste, or other materials that could pass into any river stream or lake.<br>"Any river, stream or lake", as defined by CDFW, includes those that are episodic (they are dry for periods of time) as well as those that are perennial (they flow year round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water. |
| **4.** | Cannabis cultivators shall not take any action which results in the taking of Special-Status Plants (state listed and California Native Plant Society 1B.1 and 1B.2) or a threatened, endangered, or candidate species under either the California Endangered Species Act (ESA) (Fish & Game Code §§ 2050 et seq.) or the federal ESA (16 U.S.C. § 1531 et seq.). If a "take," as defined by the California ESA (Fish and Game Code section 86) or the federal ESA (16 U.S.C. § 1532(21)), may result from any act authorized under this Policy, the cannabis cultivator must obtain authorization from CDFW, National Marine Fisheries Service, and United States Fish and Wildlife Service, as applicable, to incidentally take such species prior to land disturbance or operation associated with the cannabis cultivation activities. The cannabis cultivator is responsible for meeting all requirements under the California ESA and the federal ESA. |
| **5.** | To avoid water quality degradation from erosion and sedimentation, land disturbance activities shall only occur between April 1 and November 15 of each year, unless authorized by a Regional Water Board Executive Officer-approved[2] work plan and compliance schedule. Cannabis cultivators shall ensure land disturbance activities are completed and site stabilization measures are in place prior to the onset of fall and winter precipitation. All land disturbance activities between November 16 and March 31 shall be supervised by a Qualified Professional[3]. |

[2] The Regional Water Board Executive Officer may delegate, in writing, receipt, review, and approval of work plans or other documents required by this Policy.

[3] Although emergency mitigation measures may not require obtaining coverage under the Construction Storm Water Program, the elevated threat to water quality caused by emergency mitigation or remediation work performed from November 15 to April 1 requires planning and supervision by an appropriately qualified professional to protect water quality, such as an appropriately certified or registered Storm Water Pollution Prevention Plan Practitioner.

| No. | TERM |
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| **6.** | A California Licensed Timber Operator (LTO)[4] shall be used if any commercial tree species are to be removed from the cannabis cultivation site. All timberland conversions shall be permitted and compliant with the Forest Practice Rules and CAL FIRE permitting requirements. |
| **7.** | During land disturbance activities the cannabis cultivator shall review and evaluate the applicable daily weather forecast and any applicable 24 hour forecast[5] at least once per 24 hour period and maintain records of the weather forecast for each day land disturbance activities are conducted. The cannabis cultivator shall cease land disturbance activities and shall implement erosion control Requirements described in this Policy during any 24 hour period in which the applicable daily weather forecast or any 24 hour forecast reports a 50 percent or greater chance of precipitation greater than 0.5 inch per 24 hours. |
| **8.** | Prior to commencing any cannabis land development or site expansion activities the cannabis cultivator shall secure a qualified biologist. The cannabis cultivator and the Qualified Biologist shall consult with CDFW and CAL FIRE and designate and mark a no-disturbance buffer to protect identified sensitive plant and wildlife species and communities. |
| **9.** | All equipment used at the Cannabis Cultivation Site, including excavators, graders, etc., which may have come in contact with invasive species[6] shall be cleaned before arriving and before leaving the site. |
| **10.** | The cannabis cultivator shall comply with all applicable requirements of the State Water Board and Regional Water Boards' (collectively Water Boards) water quality control plans and policies. |
| **11.** | The cannabis cultivator shall immediately report any significant hazardous material release or spill that causes a film or sheen on the water's surface, leaves a sludge or emulsion beneath the water's surface, or a release or threatened release of a hazardous material that may potentially discharge to waters of the state, to the California Office of Emergency Services at **(800) 852-7550** and the local Unified Program Agency[7]. The cannabis cultivator shall also immediately notify the appropriate Regional Water Board and CDFW of the release. |
| **12.** | The cannabis cultivator shall comply with all water quality objectives/standards, policies, and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality |

[4] Licensed Timber Operators or "LTOs" are persons who have been licensed under the Forest Practice Act law and are authorized to conduct forest tree cutting and removal operations.

[5] If available, the cannabis cultivator shall refer to the weather forecast developed by the National Oceanic and Atmospheric Administration (NOAA) for the local National Weather Service Office (http://www.weather.gov). If the NOAA forecast is not available, a forecast by a local television news or radio broadcast shall be used.

[6] CDFW defines invasive species as organisms (plants, animals, or microbes) that are not native to an environment, and once introduced, they establish, quickly reproduce and spread, and cause harm to the environment, economy, or human health. Cannabis cultivators may refer to CDFW Internet webpage for guidance on decontamination methods and species of concern. See CDFW's invasive species webpage at: https://www.wildlife.ca.gov/Conservation/Invasives.

[7] Visit the Unified Program Agency website at http://cersapps.calepa.ca.gov/public/directory for local contact information. If internet service is not available call 911 to report the hazardous material release.

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| | Control Act (California Water Code section 13000, et seq.) or CWA section 303 (33 U.S.C. § 1313). The cannabis cultivator shall protect the beneficial uses of the waterbody and its tributaries from any diversions or discharges related to cannabis cultivation activities. |
| **13.** | The cannabis cultivator shall permit the Water Boards, CDFW, CAL FIRE, and any other authorized representatives of the Water Boards, CDFW, or CAL FIRE upon presentation of a badge, employee identification card, or similar credentials, to:<br>1. enter premises and facilities where cannabis is cultivated; where water is diverted, stored, or used; where wastes are treated, stored, or disposed of; or in which any records are kept;<br>2. access and copy, during daylight hours or other reasonable hours, any records required to be kept under the terms and conditions of this Policy;<br>3. inspect, photograph, and record audio and video, during daylight hours or other reasonable hours, any cannabis cultivation sites, and associated premises, facilities, monitoring equipment or device, practices, or operations regulated or required by this Policy; and<br>4. sample, monitor, photograph, and record audio and video of site conditions, any discharge, waste material substances, or water quality parameters at any location for the purposes of assuring compliance with this Policy. |
| **14.** | The State Water Board has the authority to modify this Policy to implement: new or revised water quality standards, policies, or water quality control plans; total maximum daily loads (TMDLs), TMDL implementation plans, or revisions to the California Water Code or CWA. |
| **15.** | The State Water Board reserves authority to modify this Policy and the terms and conditions of water right registrations if monitoring results indicate that continued cannabis cultivation activities could violate instream flow requirements or, water quality objectives or impair the beneficial uses of a waterbody and its tributaries. |
| **16.** | Cannabis cultivators shall not commit trespass. Nothing in this Policy or any program implementing this Policy shall be construed to authorize cannabis cultivation activities on land not owned by the cannabis cultivator without the express written permission of the land owner. This includes but is not limited to land owned by the United States or any department thereof, the State of California or any department thereof, any local agency, or any other person who is not the cannabis cultivator. This includes but is not limited to any land owned by a California Native American tribe, as defined in section 21073 of the Public Resources Code, whether or not the land meets the definition of tribal lands. |
| **17.** | The cannabis cultivator shall not cultivate cannabis on tribal lands or within 600 feet of tribal lands without the express written permission of the governing body of the affected tribe or from a person deputized by the governing body of the affected tribe to authorize cannabis cultivation on tribal lands[8]. |

[8] Tribal lands means lands recognized as "Indian country" within the meaning of title 18, United States Code, section 1151.

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| **18.** | No cannabis cultivation activities shall occur within 600 feet of an identified tribal cultural resource site. The cannabis cultivator is solely responsible for identifying any tribal cultural resource sites[9] within the cannabis cultivation area. |
| **19.** | Prior to land disturbance activities for new or expanded cannabis cultivation activities, the cannabis cultivator shall perform a records search of potential Native American archeological or cultural resources (CHRIS potential discovery) at a California Historical Resources Information System (CHRIS) information center. A CHRIS qualified archaeologist shall perform the records search and document the results.<br><br>If any buried archeological materials or indicators[10] are uncovered or discovered during any cannabis cultivation activities, all ground-disturbing activities shall immediately cease within 100 feet of the find.<br><br>The cannabis cultivator shall notify the Appropriate Person within 48 hours of any discovery or within seven days of a CHRIS potential discovery. The Appropriate Person is the Deputy Director for Water Rights (Deputy Director) if the cannabis cultivator is operating under the Cannabis SIUR, the Executive Officer of the applicable Regional Water Board (Executive Officer) if the cannabis cultivator is operating under the Cannabis General Order or Cannabis General Water Quality Certification, or both if the cannabis cultivator is operating under both programs.<br><br>In the event that prehistoric archeological materials or indicators are discovered, the cannabis cultivator shall also notify the Native American Heritage Commission within 48 hours of any discovery or within seven days of a CHRIS potential discovery and request a list of any California Native American tribes that are potentially culturally affiliated with the discovery or CHRIS potential discovery. The cannabis cultivator shall notify any potentially culturally affiliated California Native American tribes of the discovery or CHRIS potential discovery within 48 hours of receiving a list from the Native American Heritage Commission.<br><br>The cannabis cultivator shall promptly retain a professional archeologist[11] to evaluate the discovery or CHRIS potential discovery and recommend appropriate conservation measures. The cannabis cultivator shall submit proposed conservation measures to the appropriate person(s) (Deputy Director for the Cannabis SIUR and Executive Officer for the Cannabis General Order or Cannabis General Water Quality Certification) for written approval. The appropriate person may require all appropriate measures necessary to conserve archeological resources, including but not limited to Native American monitoring. |

[9] Identified tribal cultural resource site means a tribal cultural resource that meets the requirements of section 21074, subdivision (a)(1) of the Public Resources Code.

[10] Prehistoric archeological indicators include, but are not limited to: obsidian and chert flakes and chipped stone tools; bedrock outcrops and boulders with mortar cups; ground stone implements (grinding slabs, mortars, and pestles) and locally darkened midden soils containing some of the previously listed items plus fragments of bone, fire affected stones, shellfish, or other dietary refuse.

Historic period site indicators generally include, but are not limited to: fragments of glass, ceramic and metal objects; milled and split lumber; and structure and feature remains such as building foundations, privy pits, wells and dumps; and old trails.

[11] A professional archeologist is one that is qualified by the Secretary of Interior, Register of Professional Archaeologists, or Society for California Archaeology.

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| | In the event that prehistoric archeological materials or indicators are discovered, the cannabis cultivator shall also provide a copy of the proposed conservation measures to any culturally affiliated California Native American tribes identified by the Native American Heritage Commission. The appropriate person will carefully consider any comments submitted by culturally affiliated California Native American tribes with the goal of conserving prehistoric archeological resources with appropriate dignity.<br><br>Ground-disturbing activities shall not resume within 100 feet of the discovery until all approved measures have been completed to the satisfaction of the Deputy Director and/or Executive Officer, as applicable. |
| **20.** | Upon discovery of any human remains, cannabis cultivators shall immediately comply with Health and Safety Code section 7050.5 and Public Resources Code section 5097.98. The following actions shall be taken immediately upon the discovery of human remains:<br><br>All ground-disturbing activities in the vicinity of the discovery shall stop immediately. The cannabis cultivator shall immediately notify the county coroner. Ground disturbing activities shall not resume until the requirements of Health and Safety Code section 7050.5 and Public Resources Code section 5097.98 have been met. The cannabis cultivator shall ensure that the human remains are treated with appropriate dignity.<br><br>Per Health and Safety Code section 7050.5, the coroner has two working days to examine human remains after being notified by the responsible person. If the remains are Native American, the coroner has 24 hours to notify the Native American Heritage Commission.<br><br>Per Public Resources Code section 5097.98, the Native American Heritage Commission will immediately notify the person it believes to be the most likely descendent of the deceased Native American. The most likely descendent has 48 hours to make recommendations to the cannabis cultivator or representative for the treatment or disposition, with proper dignity, of the human remains and any grave goods. If the most likely descendent does not make recommendations within 48 hours, the cannabis cultivator shall reinter the remains in an area of the property secure from further disturbance. If the cannabis cultivator does not accept the descendant's recommendations, the cannabis cultivator or the descendent may request mediation by the Native American Heritage Commission. If mediation fails, the cannabis cultivator shall reinter the human remains and any grave goods with appropriate dignity on the property in a location not subject to future subsurface disturbance. |
| **21.** | Pursuant to Water Code sections 100 and 275 and the common law public trust doctrine, all rights and privileges, including method of diversion, method of use, and quantity of water diverted, are subject to the continuing authority of the State Water Board in accordance with law and in the interest of the public welfare to protect public trust uses and to prevent waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of said water. |
| **22.** | The cannabis cultivator shall control all dust related to cannabis cultivation activities to ensure dust does not produce sediment-laden runoff. The cannabis cultivator shall implement dust control measures, including, but not limited to, pre-watering of excavation or grading sites, use of water trucks, track-out prevention, washing down vehicles or equipment before leaving a site, and prohibiting land disturbance activities when instantaneous wind speeds (gusts) exceed 25 miles per hour. Diversion of surface water for dust control is prohibited unless authorized under a valid water right. |

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| **23.** | To minimize the risk of ensnaring and strangling wildlife, cannabis cultivators shall not use synthetic (e.g., plastic or nylon) monofilament netting materials for erosion control or any cannabis cultivation activities. This prohibition includes photo- or bio-degradable plastic netting. |
| **24.** | Cannabis cultivators shall not discharge in a manner that creates or threatens to create a condition of pollution or nuisance, as defined by Water Code section 13050. |
| **25.** | Except as allowed and authorized in this Policy, cannabis cultivators shall not discharge:<br>• irrigation runoff, tailwater, sediment, plant waste, or chemicals to surface water or via surface runoff;<br>• waste classified as hazardous (California Code of Regulations, title 23, section 2521(a)) or defined as a designated waste (Water Code section 13173); or<br>• waste in violation of, or in a manner inconsistent with, the appropriate Water Quality Control Plan(s). |
| **26.** | Unless authorized by separate waste discharge requirements or, a CWA section 404 permit, the following discharges are prohibited:<br>• any waste that could affect the quality of the waters of the state; or<br>• wastewater from cannabis manufacturing activities defined in Business and Professions Code section 26100, indoor grow operations, or other industrial wastewater to an onsite wastewater treatment system (e.g., septic tank and associated disposal facilities), to surface water, or to land. |
| **27.** | Unless authorized by a Regional Water Board site-specific WDR, cannabis cultivators shall not cultivate cannabis or have cannabis cultivation related land disturbance on slopes greater than 50 percent. This prohibition does not apply to roads that are constructed consistent with the design, construction, and maintenance guidelines presented in this Policy and the Handbook for Forest, Ranch, and Rural Road[12] (hereafter, Road Handbook). |
| **28.** | Cannabis cultivators shall not use a cesspool for domestic or industrial wastewater. Cannabis cultivators shall not install or continue use of an outhouse, pit-privy, pit-toilet, or similar device without approval from the Regional Water Board Executive Officer of the applicable Regional Water Board. |
| **29.** | In timberland areas, unless authorized by CAL FIRE or the Regional Water Board Executive Director, Cannabis cultivators shall not remove trees within 150 feet of fish bearing water bodies or 100 feet of aquatic habitat for non-fish aquatic species (e.g., aquatic insects). (Public Resources Code section 4526.) |
| **30.** | After July 1, 2017, and prior to initiating any land disturbance, Tier 2 cannabis cultivators located on slopes greater than 30% and less than 50% must submit a Site Erosion and Sediment Control Plan to the Regional Water Board Executive Officer for any cannabis-related land development or alteration. The Site Erosion and Sediment Control Plan shall be approved by the applicable Regional Water Board Executive Director prior to the cannabis |

[12] The Handbook for Forest, Ranch, and Rural Roads (Weaver 2015) describes how to implement the Forest Practice Rules requirements for road construction and is available at: http://www.pacificwatershed.com/sites/default/files/RoadsEnglishBOOKapril2015b.pdf.

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| | cultivator initiating any land disturbance. If any land disturbance was conducted on sites with slopes greater than 30% prior to July 1, 2017, cannabis cultivators must maintain substantial documentation and evidence of the land disturbance activities, and have it on site and available for review upon request. |
| **31.** | Enrollees under any Cannabis General Order implementing this Policy shall self-certify that all applicable Requirements in this Policy have been or will be implemented no later than November 15 of the same year as the enrollment date and each year thereafter. If enrollment occurs after November 15, enrollees shall self-certify that all applicable Requirements in this Policy will be implemented by November 15 of the next calendar year, and each year thereafter. Those cannabis cultivators that cannot implement all applicable Requirements by November 15 shall, within 90 days of application submittal, submit to the Executive Officer of the applicable Regional Water Board a time schedule and scope of work for use by the Regional Water Board in developing a compliance schedule. |
| **32.** | Tier 2 cannabis cultivators located on slopes greater than 30 percent and less than 50 percent shall not conduct new land disturbance activities for cannabis cultivation land development or alteration on slopes between 30 percent and 50 percent unless the cannabis cultivator either:<br>• has substantial documentation and evidence maintained on site and available upon request, that any land disturbance activities for cannabis cultivation on slopes greater than 30 percent were completed prior to July 1, 2017, or<br>• within 90 days of Cannabis General Order application submittal submit a *Site Erosion and Sediment Control Plan* to the Regional Water Board Executive Officer, for approval, prior to any new land development or alteration for cannabis cultivation that occurs after July 1, 2017. The Regional Water Board Executive Officer may deny the request to conduct new land disturbance activities for cannabis cultivation if local conditions (e.g., soil type, site instability, proximity to a waterbody, etc.) do not allow for adequate erosion and sediment control measures to ensure discharges to waters of the state will not occur. If the cannabis cultivator does not submit a *Site Erosion and Sediment Control Plan* for approval prior to new land disturbance and within 90 days of application submittal the authorization pursuant to the Cannabis General Order may be revoked. |
| **33.** | Cannabis cultivators shall implement interim Requirements immediately following land disturbance, to minimize discharges of waste constituents. Interim Requirements are those that are implemented immediately upon site development cannabis cultivators shall complete all winterization Requirements prior to the onset of fall and winter precipitation and no later than November 15 of each year, to prevent waste discharges that may result in water quality degradation. |
| **34.** | Cannabis cultivators shall not cause downstream exceedance of applicable water quality objectives identified in the applicable water quality control plan(s). |
| **35.** | The land owner is ultimately responsible for any water quality degradation that occurs on or emanates from its property and for water diversions that are not in compliance with this Policy. Land owners will be named as responsible parties and will be notified if a Cannabis General Order Notice of Applicability (NOA) or conditional exemption has been issued for cannabis activities on their property. The cannabis cultivator and the land owner will be held |

<table>
<tr><th>No.</th><th>TERM</th></tr>
<tr><td></td><td>responsible for correcting non-compliance with this Policy.</td></tr>
<tr><td>36.</td><td>
Cannabis cultivators shall comply with the minimum riparian setbacks described below for all land disturbance, cannabis cultivation activities, and facilities (e.g., material or vehicle storage, diesel powered pump locations, water storage areas, and chemical toilet placement). The riparian setbacks shall be measured from the waterbody's bankfull stage (high flow water levels that occur every 1.5 to 2 years[13]) or from the top edge of the waterbody bank in incised channels, whichever is more conservative. Riparian setbacks for springheads shall be measured from the springhead in all directions (circular buffer). Riparian setbacks for wetlands shall be measured from the edge of the bankfull water level. The cannabis cultivator shall increase riparian setbacks as needed or implement additional Requirements to meet the performance Requirement of protecting surface water from discharges that threaten water quality. If the cannabis cultivation Site cannot be managed to protect water quality, the Executive Officer of the applicable Regional Water Board may revoke authorization for cannabis cultivation activities at the cannabis cultivation site.
<br><br>
Minimum Riparian Setbacks[1]
<table>
<tr><th>Common Name</th><th>Watercourse Class</th><th>Distance (Low Risk[2])</th><th>Distance (Mod Risk[2])</th><th>Variance[3]</th></tr>
<tr><td>Perennial watercourses, springs, or seeps</td><td>I</td><td>150 ft.</td><td>200 ft.</td><td>Compliance Schedule</td></tr>
<tr><td>Intermittent watercourses</td><td>II</td><td>100 ft.</td><td>150 ft.</td><td>Compliance Schedule</td></tr>
<tr><td>Ephemeral watercourses</td><td>III</td><td>50 ft.</td><td>100 ft.</td><td>Compliance Schedule</td></tr>
<tr><td>Other waterbodies (lakes, etc.) and wetlands</td><td></td><td>150 ft.</td><td>200 ft.</td><td>Compliance Schedule</td></tr>
</table>
1 Riparian setbacks do not apply to man-made irrigation canals, water supply reservoirs, and hydroelectric canals (Watercourse Class IV) that do not support native aquatic species, however cannabis cultivators shall ensure land disturbance, cannabis cultivation activities, and facilities are not located in or disturb the existing riparian and wetland riparian vegetation associated with these Watercourse Class IV waterbodies.<br>
2 Risk is defined in Table 1 of this Policy and is based on the natural (prior to land disturbance activities) surface topography.<br>
3 Variance to riparian setbacks is only allowed if consistent with this Policy and a work plan and compliance schedule are approved by the applicable Regional Water Board Executive Officer.
</td></tr>
</table>

[13] California Forest Practice Rules Title 14, California Code of Regulations Chapter 4, section 895.1.

## Cannabis General Water Quality Certification

The State Water Board certifies that cannabis cultivation activities in compliance with the conditions of the Policy and General Order will comply with sections 301, 302, 303, 306, and 307 of the Clean Water Act, and with applicable provisions of State law, subject to the following additional terms and conditions:

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| **1.** | This certification action is subject to modification or revocation upon administrative or judicial review; including review and amendment pursuant to Water Code section 13330 and California Code of Regulations, title 23, section 3867. |
| **2.** | This certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to California Code of Regulations, title 23, section 3855, subdivision (b), and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought. |
| **3.** | This certification is conditioned upon total payment of any fee required under California Code of Regulations, title 23, division 3, chapter 28. |
| **4.** | A cannabis cultivator seeking water quality certification coverage for activities in surface waters shall notify the Executive Officer of the Regional Water Board or State Water Board Executive Director at least 60 days prior to commencement of the activity and submit information regarding the construction schedule and other relevant information. Work may not commence until the cannabis cultivator is provided authorization by the appropriate Executive Officer of the Regional Water Board or Executive Director of the State Water Board. The Executive Officer of the Regional Water Board or Executive Director of the State Water Board may include specific monitoring requirements for turbidity and other constituents that may be associated with the activity to ensure applicable state water quality standards are met. |
| **5.** | The authorization of this certification for any coverage under this Cannabis General Water Quality Certification or dredge and fill activities expires five years from the date this Policy is approved by the Office of Administrative Law. |
| **6.** | Upon completion of the discharges of dredged or fill material, the cannabis cultivator shall submit a Notice of Completion certifying that all the conditions and monitoring and reporting requirements of this General Water Quality Certification, including the Policy, Cannabis General Order (if applicable), and conditions imposed by the Regional Water Board Executive Officer or State Water Board Executive Director, have been met. |
| **7.** | All Policy and Cannabis General Order Requirements, standard conditions, general terms and provisions, and prohibitions are enforceable conditions of this General Water Quality Certification. |
| **8.** | In the event of any violation or threatened violation of the conditions of this General Water Quality Certification, the violation or threatened violation shall be subject to any remedies, penalties, processes, or sanctions as provided for under state law. For purposes of section |

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| | 401(d) of the Clean Water Act, the applicability of any state law authorizing remedies, penalties, process, or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this certification. |
| **9.** | This General Water Quality Certification may be modified as needed by the Executive Director of the State Water Board. |

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# SECTION 2 – REQUIREMENTS RELATED TO WATER DIVERSIONS AND WASTE DISCHARGE FOR CANNABIS CULTIVATION

The following Requirements apply to any water diversion or waste discharge related to cannabis cultivation.

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| **Land Development and Maintenance, Erosion Control, and Drainage Features** | |
| **Limitations on Earthmoving** | |
| **1.** | All grading and earthwork shall be done by a state-licensed C-12 Earthwork and Paving contractor[14], as applicable. |
| **2.** | Cannabis cultivators shall not conduct grading activities for cannabis cultivation land development or alteration on slopes exceeding 50 percent grade, or as restricted by local county or city permits, ordinances, or regulations for grading, agriculture, or cannabis cultivation; whichever is more stringent shall apply.<br><br>Cannabis cultivators shall not conduct grading activities for cannabis cultivation land development or alteration on slopes between 30 percent and 50 percent unless the cannabis cultivator either:<br>• has substantial documentation and evidence maintained on site and available upon request, that any grading activities for cannabis cultivation on slopes greater than 30 percent were completed prior to July 1, 2017, or<br>• submits a *Site Erosion and Sediment Control Plan* to the Regional Water Board Executive Officer, for approval, prior to any land development or alteration for cannabis cultivation that occurs after July 1, 2017 on slopes between 30 percent and 50 percent. The Regional Water Board Executive Officer may deny the request to conduct grading activities for cannabis cultivation land development or alteration on slopes greater than 30 percent if local conditions (e.g., soil type, site instability, proximity to a waterbody, etc.) do not allow for adequate erosion and sediment control measures to ensure discharges to waters of the state will not occur.<br><br>The grading prohibition on slopes exceeding 50 percent does not apply to:<br>• site mitigation or remediation if the cannabis cultivator is issued separate WDRs for the activity by the Regional Water Board Executive Officer, or<br>• roads that are constructed consistent with the design, construction, and maintenance guidelines presented in this Policy and Road Handbook. |

[14] An earthwork and paving contractor digs, moves, and places material forming the surface of the earth, other than water, in such a manner that a cut, fill, excavation, grade, trench, backfill, or tunnel (if incidental thereto) can be executed, including the use of explosives for these purposes. This classification includes the mixing, fabricating and placing of paving and any other surfacing materials. See California Code of Regulations Title 16, Division 8, Article 3. Classifications.

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| 3. | Finished cut and fill slopes, including side slopes between terraces, shall not exceed slopes of 50 percent (1:2 slope) and should conform to the natural pre-grade slope whenever possible. |
| 4. | Cannabis cultivators shall not fuel, clean, maintain, repair, or store vehicles or equipment within the riparian setbacks or within waters of the state. Cannabis cultivators shall not drive or operate vehicles or equipment within the riparian setbacks or within waters of the state unless authorized by a CWA section 404 permit, a CDFW LSA Agreement, or WDRs issued by the State Water Board or Regional Water Board. |
| 5. | Cannabis cultivation land development and road construction shall be designed by a qualified professional. Cannabis cultivators shall conduct all construction or land development activities to minimize grading, soil disturbance, and disturbance to aquatic and terrestrial habitat. Cannabis cultivators shall conduct all road design, land development, and construction activities in compliance with the California Forest Practices Act and any state, county, city, or local requirements, as applicable. |
| **Construction Equipment Use and Limitations** | |
| 6. | Cannabis cultivators shall employ spill control and containment practices to prevent the discharge of fuels, oils, solvents and other chemicals to soils and Waters of the State. |
| 7. | Cannabis cultivators shall not stage or store any equipment, materials, fuels, lubricants, solvents, or hazardous or toxic materials where they have the potential to contact or enter Waters of the State (e.g., via storm water runoff, percolation, etc.). At a minimum, the following precautionary measures shall be implemented:<br>1. Schedule land disturbance activities for dry weather periods.<br>2. Designate an area outside the riparian setback for equipment storage, short-term maintenance, and refueling. Cannabis cultivator shall not conduct any maintenance activity or refuel equipment in any location where the petroleum products or other pollutants may enter Waters of the State as per Fish and Game Code section 5650 (a)(1).<br>3. Frequently inspect equipment and vehicles for leaks, and immediately make necessary repairs.<br>4. Immediately clean up leaks, drips, and other spills to avoid soil, surface water, and/or groundwater contamination. Except for emergency repairs that are immediately necessary, conduct equipment/vehicle repairs, maintenance, and washing offsite.<br>5. Do not generate any waste fluids (e.g., motor oil, radiator coolant, etc.) at the cannabis cultivation site. If emergency repairs generate waste fluids, ensure they are contained and properly disposed or recycled.<br>6. Do not dispose of construction debris on-site. All debris shall be properly disposed of or recycled.<br>7. Use dry cleanup methods (e.g., absorbent materials, cat litter, and/or rags) |

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| | whenever possible.<br>8. Sweep up, contain, and properly dispose of spilled dry materials. |
| **Erosion Control** | |
| **8.** | The cannabis cultivator shall implement control measures for erosion, excessive sedimentation, and turbidity. Control measures shall be in place at the commencement of, during, and after any activities that could result in erosion or sediment discharges to surface waters and shall be maintained until the land disturbance is stabilized. The cannabis cultivator shall consult with a qualified professional to identify potential erosion or sediment discharges and the appropriate control measures. |
| **9.** | The cannabis cultivator shall use erosion control blankets, liners, or other erosion control measures for any unstabilized stockpiles of excavated material to control runoff resulting from precipitation and to prevent material from contacting or entering Waters of the State. Fill soil shall not be placed where it may discharge into Waters of the State. Wattles shall be installed on contours and mats/blankets shall be installed per manufacturer's guidelines. If used, weed-free straw mulch shall be applied at a rate of two tons per acre of exposed soils and, if warranted by site conditions, shall be secured to the ground. Erosion control measures shall be placed and maintained until the threat of erosion ceases. Consultation with a qualified professional is recommended for successful storm water pollution prevention. |
| **10.** | The cannabis cultivator shall not plant or seed noxious weeds. Prohibited plant species include those identified in the California Exotic Pest Plant Council's database, available at: www.cal-ipc.org/paf/. Locally native, non-invasive, and non-persistent grass species may be used for temporary erosion control benefits to stabilize disturbed land and prevent exposure of disturbed land to rainfall. Nothing in this term may be construed as a ban on cannabis cultivation that complies with the terms of this Policy. |
| **11.** | Cannabis cultivators shall incorporate erosion control and sediment detention devices and materials into the design, work schedule, and implementation of the cannabis cultivation activities. The erosion prevention and sediment capture measures shall be effective in protecting water quality.<br>Interim erosion prevention and sediment capture measures shall be implemented within seven days of completion of grading and land disturbance activities, and shall consist of erosion prevention measures and sediment capture measures including:<br>• Erosion prevention measures are required for any earthwork that uses heavy equipment (e.g., bulldozer, compactor, excavator, etc.). Erosion prevention measures may include surface contouring, slope roughening, and upslope storm water diversion. Other types of erosion prevention measures may include mulching, hydroseeding, tarp placement, revegetation, and rock slope protection.<br>• Sediment capture measures include the implementation of measures such as gravel bag berms, fiber rolls, straw bale barriers, properly installed silt fences, and sediment settling basins. |

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| | • Cannabis cultivators shall implement long-term erosion prevention and sediment capture measures as soon as possible and prior to the onset of fall and winter precipitation. Long-term measures may include the use of heavy equipment to reconfigure roads or improve road drainage, installation of properly-sized culverts, gravel placement on steeper grades, and stabilization of previously disturbed land.<br><br>• Cannabis cultivators shall continually maintain all erosion prevention and sediment capture measures. Early monitoring allows for identification of problem areas or underperforming erosion or sediment control measures. Verification of the effectiveness of all erosion prevention and sediment capture measures is required as part of winterization activities. |
| **12.** | Cannabis cultivators shall only use geotextiles, fiber rolls, and other erosion control measures made of loose-weave mesh (e.g., jute, coconut (coir) fiber, or from other products without welded weaves). |
| **13.** | Cannabis cultivators shall not cultivate cannabis or engage in any land disturbance or site preparation activities on or near slopes until a qualified professional has inspected the slope for indications of instability. Indications of instability include the occurrence of slope failures at nearby similar sites, weak soil layers, geologic bedding parallel to slope surface, hillside creep (trees, fence posts, etc. leaning downslope), tension cracks in the slope surface, bulging soil at the base of the slope, and groundwater discharge from the slope. If indicators of instability are present, the cannabis cultivator shall consult with a qualified professional to design measures to stabilize the slope to prevent sediment discharge to surface waters. Cannabis cultivators shall not cultivate cannabis or engage in any land disturbance or site preparation activities until all slope stabilization measures have been implemented. |
| **14.** | For areas outside of riparian setbacks or for upland areas, cannabis cultivators shall ensure that rock placed for slope protection is the minimum amount necessary and is part of a design that provides for native plant revegetation. If retaining walls or other structures are required to provide slope stability, they shall be designed by a qualified professional. |
| **15.** | Cannabis cultivators shall monitor erosion control measures during and after each storm event and repair or replace, as applicable, ineffective erosion control measures immediately. |
| **Private Road/Land Development and Drainage** | |
| **16.** | Cannabis cultivators shall obtain all required permits and approvals prior to the construction of any road constructed for cannabis cultivation activities. Permits may include section 404/401 CWA permits, Regional Water Board WDRs (when applicable), CDFW LSA Agreement, and county or local agency permits. |
| **17.** | Cannabis cultivators shall ensure that any new roads and existing roads are constructed or upgraded to be consistent with the requirements of the Forest Practice Rules. The Road Handbook describes how to implement the Forest Practice Rules requirements for road construction. |

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| **18.** | Cannabis cultivators shall ensure that all new roads as of July 1, 2017, are designed to: 1) maximize the distance between the road and all watercourses; 2) minimize the number of watercourse crossings; 3) be hydrologically disconnected from receiving waters, to the extent possible; and 4) reduce erosion and sediment transport to streams. |
| **19.** | Cannabis cultivators shall ensure that all roadways are hydrologically disconnected to receiving waters to the extent possible by: 1) installing disconnecting drainage features; 2) increasing the frequency of (inside) ditch drain relief; 3) constructing out-sloped roads; 4) applying treatment to dissipate energy, disperse flows, and filter sediment; and 5) avoiding concentrating flows in unstable areas. |
| **20.** | Cannabis cultivators shall decommission or relocate existing roads away from riparian setbacks whenever possible. Roads that are proposed for decommissioning shall be abandoned and left in a condition that provides for long-term, maintenance-free function of drainage and erosion controls. Abandoned roads shall be blocked to prevent unauthorized vehicle traffic. |
| **21.** | If site conditions prohibit drainage structures (including rolling dips and ditch-relief culverts) at adequate intervals to avoid erosion, the cannabis cultivator shall use bioengineering techniques[15] as the preferred measure to minimize erosion (e.g., live fascines). If bioengineering cannot be used, then engineering fixes such as armoring (e.g., rock of adequate size and depth to remain in place under traffic and flow conditions) and velocity dissipaters (e.g., gravel-filled "pillows" in an inside ditch to trap sediment) may be used for problem sites. The maximum distance between water breaks shall not exceed those defined in the Road Handbook. |
| **22.** | Cannabis cultivators shall only grade roads in dry weather while moisture is still present in soil to minimize dust and to achieve design soil compaction. When needed, cannabis cultivators may use a water truck to control dust and soil moisture. A valid water right is required for any surface water diverted for soil moisture and dust control. |
| **23.** | Cannabis cultivators shall have a qualified professional design the optimal road alignment, surfacing, drainage, maintenance requirements, and spoils handling procedures. |
| **24.** | Cannabis cultivators shall ensure that road surfacing, especially within a segment leading to a wetland or waterbody, is sufficient to minimize sediment delivery to the wetland or waterbody and maximize road integrity. Road surfacing may include pavement, chip-seal, lignin, rock, or other material appropriate for timing and nature of use. All roads that will be used for winter or wet weather hauling/traffic shall be surfaced. Steeper road grades require higher quality rock (e.g., crushed angular versus river-run) to remain in place. The use of asphalt grindings is prohibited. |
| **25.** | Cannabis cultivators shall install erosion control measures on all road approaches to |

[15] A Primer on Stream and River Protection for the Regulator and Program Manager: Technical Reference Circular W.D. 02-#1, San Francisco Bay Region, California Regional Water Board (April 2003) http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stream_wetland/streamprotectioncircular.pdf.

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| | surface water diversion sites to reduce the generation and transport of sediment to streams. |
| **26.** | Cannabis cultivators shall ensure that roads are out-sloped whenever possible to promote even drainage of the road surface, prevent the concentration of storm water flow within an inboard or inside ditch, and to minimize disruption of the natural sheet flow pattern off a hill slope to a stream. If unable to eliminate inboard or inside ditches, the cannabis cultivator shall ensure adequate ditch relief culverts to prevent down-cutting of the ditch and to reduce water runoff concentration, velocity, and erosion. Ditches shall be designed and maintained as recommended by a qualified professional. To avoid point-source discharges, inboard ditches and ditch relief culverts shall be discharged onto vegetated or armored slopes that are designed to dissipate and prevent runoff channelization. Inboard ditches and ditch relief culverts shall be designed to ensure discharges into natural stream channels or watercourses are prevented. |
| **27.** | Cannabis cultivators shall ensure that neither in-sloped nor out-sloped roads are allowed to develop or show evidence of significant surface rutting or gullying. Cannabis cultivators shall use water bars and rolling dips as designed by a qualified professional to minimize road surface erosion and dissipate runoff. |
| **28.** | Cannabis cultivators shall only grade ditches when necessary to prevent erosion of the ditch, undermining of the banks, or exposure of the toe of the cut slope to erosion. Cannabis cultivators shall not remove more vegetation than necessary to keep water moving, as vegetation prevents scour and filters out sediment. |
| **29.** | Cannabis cultivators shall ensure that all road surface storm water drainage is discharged to a stable location away from wetlands and waterbodies as designed by a qualified professional. Sediment control devices (e.g., check dams, sand/gravel bag barriers, etc.) shall be used when it is not practical to disperse storm water before discharge to a waterbody. Where potential discharge to a wetland or waterbody exists (e.g., within 200 feet of a waterbody) road surface drainage shall be filtered through vegetation, slash, other appropriate material, or settled into a depression with an outlet with adequate drainage. Sediment basins shall be engineered and properly sized to allow sediment settling, spillway stability, and maintenance activities. |
| **Drainage Culverts** | |
| **30.** | Cannabis cultivators shall regularly inspect ditch-relief culverts and clear them of any debris or sediment. To reduce culvert plugging by debris, cannabis cultivators shall use 15- to 24-inch diameter pipes, at minimum, for ditch relief culverts. Ditch relief culverts shall be designed by a qualified professional based on site-specific conditions. In forested areas with a potential for woody debris, a minimum 18-inch diameter pipe shall be used to reduce clogging. |
| **31.** | Cannabis cultivators shall ensure that all permanent watercourse crossings that are constructed or reconstructed are capable of accommodating the estimated 100-year flood flow, including debris and sediment loads. Watercourse crossings shall be designed and sized by a qualified professional. |

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| **Cleanup, Restoration, and Mitigation** | |
| **32.** | Cannabis cultivators shall limit disturbance to existing grades and vegetation to the actual site of the cleanup or remediation and any necessary access routes. |
| **33.** | Cannabis cultivators shall avoid damage to native riparian vegetation. All exposed or disturbed land and access points within the stream and riparian setback with damaged vegetation shall be restored with regional native vegetation of similar native species. Riparian trees over four inches diameter at breast height shall be replaced by similar native species at a ratio of three to one (3:1). Restored areas must be mulched, using at least 2 to 4 inches of weed-free, clean straw or similar biodegradable mulch over the seeded area. Revegetation and mulching shall be completed within 30 days after land disturbance activities in the areas cease.<br><br>Cannabis cultivators shall stabilize and restore any temporary work areas with native vegetation to pre-cannabis cultivation or pre-Legacy conditions or better. Vegetation shall be planted at an adequate density and variety to control surface erosion and re-generate a diverse composition of regional native vegetation of similar native species. |
| **34.** | Cannabis cultivators shall avoid damage to oak woodlands. Cannabis cultivator shall plant three oak trees for every one oak tree damaged or removed. Trees may be planted in groves in order to maximize wildlife benefits and shall be native to the local county. |
| **35.** | Cannabis cultivators shall develop a revegetation plan for:<br>• All exposed or disturbed riparian vegetation areas,<br>• any oak trees that are damaged or removed, and<br>• temporary work areas.<br><br>Cannabis cultivators shall develop a monitoring plan that evaluates the revegetation plan for five years. Cannabis cultivators shall maintain annual inspections for the purpose of assessing an 85 percent survival and growth of revegetated areas within a five-year period. The presence of exposed soil shall be documented for three years following revegetation work. If the revegetation results in less than an 85 percent success rate, the unsuccessful vegetation areas shall be replanted. Cannabis cultivators shall identify the location and extent of exposed soil associated with the site; pre- and post-revegetation work photos; diagram of all areas revegetated, the planting methods, and plants used; and an assessment of the success of the revegetation program. Cannabis cultivators shall maintain a copy of the revegetation plan and monitoring results onsite and make them available, upon request, to Water Boards staff or authorized representatives. An electronic copy of monitoring results is acceptable in Portable Document Format (PDF). |
| **36.** | Cannabis cultivators shall revegetate soil exposed as a result of cannabis cultivation activities with native vegetation by live planting, seed casting, or hydroseeding within seven days of exposure. |
| **37.** | Cannabis cultivators shall prevent the spread or introduction of exotic plant species to the maximum extent possible by cleaning equipment before delivery to the cannabis cultivation Site and before removal, restoring land disturbance with appropriate native species, and |

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| | post-cannabis cultivation activities monitoring and control of exotic species. Nothing in this term may be construed as a ban on cannabis cultivation that complies with the terms of this Policy. |
| **Stream Crossing Installation and Maintenance** | |
| **Limitations on Work in Watercourses and Permanently Ponded Areas** | |
| **38.** | Cannabis cultivators shall obtain all applicable permits and approvals prior to doing any work in or around waterbodies or within the riparian setbacks. Permits may include section 404/401 CWA permits, Regional Water Board WDRs (when applicable), and a CDFW LSA Agreement. |
| **39.** | Cannabis cultivators shall avoid or minimize temporary stream crossings. When necessary, temporary stream crossings shall be located in areas where erosion potential and damage to the existing habitat is low. Cannabis cultivators shall avoid areas where runoff from roadway side slopes and natural hillsides will drain and flow into the temporary crossing. Temporary stream crossings that impede fish passage are strictly prohibited on permanent or seasonal fish-bearing streams. |
| **40.** | Cannabis cultivators shall avoid or minimize use of heavy equipment[16] in a watercourse. If use is unavoidable, heavy equipment may only travel or work in a waterbody with a rocky or cobbled channel. Wood, rubber, or clean native rock temporary work pads shall be used on the channel bottom prior to use of heavy equipment to protect channel bed and preserve channel morphology. Temporary work pads and other channel protection shall be removed as soon as possible once the use of heavy equipment is complete. |
| **41.** | Cannabis cultivators shall avoid or minimize work in or near a stream, creek, river, lake, pond, or other waterbody. If work in a waterbody cannot be avoided, activities and associated workspace shall be isolated from flowing water by directing the water around the work site. If water is present, then the cannabis cultivator shall develop a site-specific plan prepared by a qualified professional. The plan shall consider partial or full stream diversion and dewatering. The plan shall consider the use of coffer dams upstream and downstream of the work site and the diversion of all flow from upstream of the upstream dam to downstream of the downstream dam, through a suitably sized pipe. Cannabis cultivation activities and associated work shall be performed outside the waterbody from the top of the bank to the maximum extent possible. |
| **Temporary Watercourse Diversion and Dewatering: All Live Watercourses** | |
| **42.** | Cannabis cultivators shall ensure that coffer dams are constructed prior to commencing work and as close as practicable upstream and downstream of the work area. Cofferdam construction using offsite materials, such as clean gravel bags or inflatable dams, is preferred. Thick plastic may be used to minimize leakage, but shall be completely removed and properly disposed of upon work completion. If the coffer dams or stream diversion fail, |

[16] Heavy equipment is defined as large pieces of machinery or vehicles, especially those used in the building and construction industry (e.g., bulldozers, excavators, backhoes, bobcats, tractors, etc.).

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| | the cannabis cultivator shall repair them immediately. |
| **43.** | When any dam or other artificial obstruction is being constructed, maintained, or placed in operation, the cannabis cultivator shall allow sufficient water at all times to pass downstream to maintain aquatic life below the dam pursuant to Fish and Game Code section 5937. |
| **44.** | If possible, gravity flow is the preferred method of water diversion. If a pump is used, the cannabis cultivator shall ensure that the pump is operated at the rate of flow that passes through the cannabis cultivation site. Pumping rates shall not dewater or impound water on the upstream side of the coffer dam. When diversion pipe is used it shall be protected from cannabis cultivation activities and maintained to prevent debris blockage. |
| **45.** | Cannabis cultivators shall only divert water such that water does not scour the channel bed or banks at the downstream end. Cannabis cultivator shall divert flow in a manner that prevents turbidity, siltation, and pollution and provides flows to downstream reaches. Cannabis cultivators shall provide flows to downstream reaches during all times that the natural flow would have supported aquatic life. Flows shall be of sufficient quality and quantity, and of appropriate temperature to support fish and other aquatic life both above and below the diversion. Block netting and intake screens shall be sized to protect and prevent impacts to fish and wildlife. |
| **46.** | Once water has been diverted around the work area, cannabis cultivators may dewater the site to provide an adequately dry work area. Any muddy or otherwise contaminated water shall be pumped to a settling tank, dewatering filter bag, or upland area, or to another location approved by CDFW or the appropriate Regional Water Board Executive Officer prior to re-entering the watercourse. |
| **47.** | Upon completion of work, cannabis cultivators shall immediately remove the flow diversion structure in a manner that allows flow to resume with a minimum of disturbance to the channel substrate and that minimizes the generation of turbidity. |
| **48.** | A qualified biologist shall, in consultation with CDFW, develop, implement, and oversee a site-specific Capture and Relocation Plan that addresses all potential aquatic life found in dewatered areas. Under the Capture and Relocation Plan all reasonable efforts shall be made to avoid stranding aquatic life and include information regarding how aquatic life observed in dewatered areas will be captured and relocated. Capture methods may include fish landing nets, dip nets, buckets, and by hand. Captured aquatic life shall be released immediately in the waterbody closest to the work site. Efforts will be made to reduce collecting and handling stress, minimize the time that animals are held in buckets, and minimize handling stress during processing and release. Cannabis cultivators or contractors shall not remove any fish, dead or alive, from the site for personal use. If listed species are captured, the cannabis cultivator shall contact CDFW. The cannabis cultivator shall fully implement the Capture and Relocation Plan prior to dewatering. |

| Watercourse Crossings | |
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| **49.** | Cannabis cultivators shall ensure that watercourse crossings are designed by a qualified professional. |
| **50.** | Cannabis cultivators shall ensure that all road watercourse crossing structures allow for the unrestricted passage of water and shall be designed to accommodate the estimated 100-year flood flow and associated debris (based upon an assessment of the streams potential to generate debris during high flow events). Consult CAL FIRE 100 year Watercourse Crossings document for examples and design calculations, available at: http://www.calfire.ca.gov/resource_mgt/downloads/ reports/ForestryReport1.pdf. |
| **51.** | Cannabis cultivators shall ensure that watercourse crossings allow migration of aquatic life during all life stages supported or potentially supported by that stream reach. Design measures shall be incorporated to ensure water depth and velocity does not inhibit migration of aquatic life. Any road crossing structure on watercourses that supports fish shall be constructed for the unrestricted passage of fish at all life stages, and should use the following design guidelines:<br>• CDFW's *Culvert Criteria for Fish Passage;*<br>• CDFW's *Salmonid Stream Habitat Restoration Manual, Volume 2, Part IX: Fish Passage Evaluation at Stream Crossings; and*<br>• National Marine Fisheries Service, Southwest Region *Guidelines for Salmonid Passage at Stream Crossings.* |
| **52.** | Cannabis cultivators shall conduct regular inspection and maintenance of stream crossings to ensure crossings are not blocked by debris. Refer to California Board of Forestry Technical Rule No. 5 available at: http://www.calforests.org/wp-content/uploads/2013/10/Adopted-TRA5.pdf. |
| **53.** | Cannabis cultivators shall only use rock fords for temporary seasonal crossings on small water bodies where aquatic life passage is not required during the time period of use. Rock fords shall be oriented perpendicular to the flow of the watercourse and designed to maintain the range of surface flows that occur in the watercourse. When constructed, rock shall be sized to withstand the range of flow events that occur at the crossing and rock shall be maintained at the rock ford to completely cover the channel bed and bank surfaces to minimize soil compaction, rutting, and erosion. Rock must extend on either side of the ford up to the break in slope. The use of rock fords as watercourse crossings for all-weather road use is prohibited. |
| **54.** | Cannabis cultivators shall ensure that culverts used at watercourse crossings are designed to direct flow and debris toward the inlet (e.g., use of wing-walls, pipe beveling, rock armoring, etc.) to prevent erosion of road fill, debris blocking the culvert, and watercourses from eroding a new channel. |
| **55.** | Cannabis cultivators shall regularly inspect and maintain the condition of roads, road drainage features, and watercourse crossings. At a minimum, cannabis cultivators shall perform inspections prior to the onset of fall and winter precipitation and following storm events. Cannabis cultivators are required to perform all of the following maintenance: |

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| | • Remove any wood debris that may restrict flow in a culvert.<br>• Remove sediment that impacts road or drainage feature performance. Place any removed sediment in a location outside the riparian setbacks and stabilize the sediment.<br>• Maintain records of road and drainage feature maintenance and consider redesigning the road to improve performance and reduce maintenance needs. |
| **56.** | Cannabis cultivators shall compact road crossing approaches and fill slopes during installation and shall stabilize them with rock or other appropriate surface protection to minimize surface erosion. Cannabis cultivators shall ensure that roads over culverts are equipped with a critical dip to ensure that, if the culvert becomes blocked or plugged, water can flow over the road surface without washing away the fill prism. Road crossings where specific conditions do not allow for a critical dip or in areas with potential for significant debris accumulation, shall include additional measures such as emergency overflow culverts or oversized culverts that are designed by a qualified professional. |
| **57.** | Cannabis cultivators shall ensure that culverts used at watercourse crossings are: 1) installed parallel to the watercourse alignment to the extent possible, 2) of sufficient length to extend beyond stabilized fill/sidecast material, and 3) installed at the same level and gradient of the streambed in which they are being placed to prevent erosion. |
| **Soil Disposal and Spoils Management** | |
| **58.** | Cannabis cultivators shall only store soil, construction, and waste materials outside the riparian setback except as needed for immediate construction needs. Such materials shall not be stored in locations of known slope instability or where the storage of construction or waste material could reduce slope stability. |
| **59.** | Cannabis cultivators shall separate large organic material (e.g., roots, woody debris, etc.) from soil materials. Cannabis cultivators shall either place the large organic material in long-term, upland storage sites, or properly dispose of these materials offsite. |
| **60.** | Cannabis cultivators shall store erodible soil, soil amendments, and spoil piles to prevent sediment discharges in storm water. Storage practices may include use of tarps, upslope land contouring to divert surface flow around the material, or use of sediment control devices (e.g., silt fences, straw wattles, etc.). |
| **61.** | Cannabis cultivators shall contour and stabilize stored spoils to mimic natural slope contours and drainage patterns (as appropriate) to reduce the potential for fill saturation and slope failure. |
| **62.** | For soil disposal sites cannabis cultivators shall:<br>• revegetate soil disposal sites with a mix of native plant species,<br>• cover the seeded and planted areas with mulched straw at a rate of two tons per acre, and<br>• apply non-synthetic netting or similar erosion control fabric (e.g., jute) on slopes greater than 2:1 if the site is erodible. |
| **63.** | Cannabis cultivators shall haul away and properly dispose of excess soil and other debris |

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| | as needed to prevent discharge to Waters of the State. |
| **Riparian and Wetland Protection and Management** | |
| **64.** | Cannabis cultivators shall not disturb aquatic or riparian habitat, such as pools, spawning sites, large wood, or shading vegetation unless authorized under a CWA section 404 permit, CWA section 401 certification, Regional Water Board WDRs (when applicable), or a CDFW LSA Agreement. |
| **65.** | Cannabis cultivators shall maintain existing, naturally occurring, riparian vegetative cover (e.g., trees, shrubs, and grasses) in aquatic habitat areas to the maximum extent possible to maintain riparian areas for streambank stabilization, erosion control, stream shading and temperature control, sediment and chemical filtration, aquatic life support, wildlife support, and to minimize waste discharge. |
| **Water Storage and Use** | |
| **Water Supply, Diversion, and Storage** | |
| **66.** | Cannabis cultivators shall only install, maintain, and destroy groundwater wells in compliance with county, city, and local ordinances and with California Well Standards as stipulated in California Department of Water Resources Bulletins 74-90 and 74-81.[17] |
| **67.** | All water diversions for cannabis cultivation from a surface stream, groundwater diversions from a subterranean stream flowing through a known and definite channel, or other surface waterbody are subject to the surface water forbearance period and instream flow Requirements. This includes lakes, ponds, and all springs or seeps, including those that do not flow off the property. See Section 3. Numeric and Narrative Instream Flow Requirements of this Appendix for more information. |
| **68.** | Cannabis cultivators diverting under riparian water right claims shall submit a Cannabis SIUR application within 60 days of when the program becomes available or commence use of another water source during the forbearance period. |
| **69.** | Groundwater extractions may be subject to additional requirements, such as a forbearance period, if the State Water Board determines those requirements are reasonably necessary. |
| **70.** | Cannabis cultivators are encouraged to use appropriate rainwater catchment systems to collect from impermeable surfaces (e.g., roof tops, etc.) during the wet season and store storm water in tanks, bladders, or off-stream engineered reservoirs to reduce the need for surface water or groundwater diversions. |
| **71.** | Cannabis cultivators shall not divert surface water unless it is diverted in accordance with an existing water right that specifies, as appropriate, the source, location of the point of diversion, purpose of use, place of use, and quantity and season of diversion. Cannabis cultivators shall maintain documentation of the water right at the cannabis cultivation site. Documentation of the water right shall be available for review and inspection by the Water |

[17] California Well Standards are available at: http://www.water.ca.gov/groundwater/well_info_and_other/california_well_standards/well_standards_content.html.

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| | Boards, CDFW, and any other authorized representatives of the Water Boards or CDFW. |
| **72.** | Cannabis cultivators shall ensure that all water diversion facilities are designed, constructed, and maintained so they do not prevent, impede, or tend to prevent the passing of fish, as defined by Fish and Game Code section 45, upstream or downstream, as required by Fish and Game Code section 5901. This includes but is not limited to the supply of water at an appropriate depth, temperature, and velocity to facilitate upstream and downstream aquatic life movement and migration. Cannabis cultivators shall allow sufficient water at all times to pass past the point of diversion to keep in good condition any fish that may be planted or exist below the point of diversion as defined by Fish and Game Code section 5937. Cannabis cultivators shall not divert water in a manner contrary to or inconsistent with these Requirements. |
| **73.** | Cannabis cultivators shall not divert surface water unless in compliance with all additional Cannabis SIUR conditions required by CDFW. |
| **74.** | Water diversion facilities shall include satisfactory means for bypassing water to satisfy downstream prior rights and any requirements of policies for water quality control, water quality control plans, water quality certifications, waste discharge requirements, or other local, state or federal instream flow requirements. Cannabis cultivators shall not divert in a manner that results in injury to holders of legal downstream senior rights. Cannabis cultivators may be required to curtail diversions should diversion result in injury to holders of legal downstream senior water rights or interfere with maintenance of downstream instream flow requirements. |
| **75.** | Cannabis cultivators shall only use fuel powered (e.g., gas, diesel, etc.) diversion pumps that are located in a stable and secure location outside of the riparian setbacks. All pumps shall:<br>1. be properly maintained,<br>2. have suitable secondary containment to ensure any spills or leaks do not enter surface waterbodies or groundwater, and<br>3. have sufficient overhead cover to prevent exposure of equipment to precipitation. |
| **76.** | No water shall be diverted unless the cannabis cultivator is operating the water diversion facility with a CDFW-approved fish screen. The fish screen shall be designed and maintained in accordance with screening criteria approved by CDFW. The screen shall prevent wildlife from entering the diversion intake and becoming entrapped. The cannabis cultivator shall contact the regional CDFW Office, LSA Program for information on screening criteria for diversion(s).[18] The cannabis cultivator shall provide evidence that demonstrates that the fish screen is in good condition whenever requested by the Water Boards or CDFW. Points of re-diversion from off-stream storage facilities that are open to the environment shall have a fish screen, as required by CDFW. |
| **77.** | Cannabis cultivators shall inspect, maintain, and clean fish screens and bypass appurtenances to ensure proper operation for the protection of fish and wildlife. |
| **78.** | Cannabis cultivators shall not obstruct, alter, dam, or divert all or any portion of a natural |

[18] CDFW's Lake and Streambed program information is available at: https://www.wildlife.ca.gov/Conservation/LSA .

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| | watercourse prior to obtaining all applicable permits and approvals. Permits may include a valid water right, CWA section 404 permit, CWA section 401 certification, Regional Water Board WDRs (when applicable), and/or a CDFW LSA Agreement. |
| **79.** | Cannabis cultivators shall plug, block, cap, disconnect, or remove the diversion intake associated with cannabis cultivation activities during the surface water forbearance period, unless the diversion intake is used for other beneficial uses, to ensure no water is diverted during that time. |
| **80.** | Cannabis cultivators shall not divert more than a maximum instantaneous diversion rate of 10 gallons per minute, unless authorized under an existing appropriative water right. |
| **82.** | Onstream storage reservoirs are prohibited unless the cannabis cultivator has an existing water right issued prior to January 1, 2017 that authorizes the onstream storage reservoir. Cannabis cultivators who do not have an existing water right as of January 1, 2017, that authorizes the onstream reservoir storage, including cannabis cultivators with a pending application, an unpermitted onstream storage reservoir, and those who want to install a new onstream storage reservoir, are required to obtain an appropriative water right permit prior to diverting water from an onstream storage reservoir for cannabis cultivation. |
| **83.** | Cannabis cultivators are encouraged to install separate storage systems for water diverted for cannabis irrigation and water diverted for any other beneficial uses,[19] or otherwise shall install separate measuring devices to quantify diversion to and from each storage facility, including the quantity of water diverted and the quantity, place, and purpose of use (e.g., cannabis irrigation, other crop irrigation, domestic, etc.) for the stored water. |
| **84.** | The cannabis cultivator shall install and maintain a measuring device(s) that meets the requirements for direct diversions greater than 10 acre-feet per year in California Code of Regulations, Title 23, Division 3, Chapter 2.7[20]. The measuring device(s) shall be located at or near the point of diversion. Cannabis cultivators shall maintain records of daily diversion with separate records that document the amount of water used for cannabis cultivation separate from the amount of water used for other irrigation purposes and other beneficial uses of water (e.g., domestic, fire protection, etc.). Cannabis cultivators shall maintain daily diversion records at the cultivation site and shall make the records available for review or by request by the Water Boards CDFW, or any other authorized representatives of the Water Boards or CDFW. |
| **85.** | The State Water Board intends to develop and implement a basin-wide program for real-time electronic monitoring and reporting of diversions, withdrawals, releases and streamflow in a standardized format if and when resources become available. Such real-time reporting will be required upon a showing by the State Water Board that the program and the infrastructure are in place to accept real-time electronic reports. Implementation of the reporting requirements shall not necessitate amendment to this Requirement. |

[19] Other beneficial uses of water include: domestic, irrigation, power, municipal, mining, industrial, fish and wildlife preservation and enhancement, aquaculture, recreational, stockwatering, water quality, frost protection, and heat control. (California Code of Regulations, Title 23 sections 659-672).

[20] Additional information on measuring devices may be found at: https://www.waterboards.ca.gov/waterrights/water_issues/programs/diversion_use/water_use.shtml#measurement

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| **86.** | Cannabis cultivators shall not use off-stream storage reservoirs to store water for cannabis cultivation unless the reservoir is properly sited and has been designed by a qualified professional. Cannabis cultivators shall plant native vegetation along the perimeter of the off-stream storage reservoir. |
| **87.** | Cannabis cultivators shall design and manage off-stream storage facilities that are open to the environment, such as storage ponds and reservoirs, to maintain sufficient freeboard to capture stormwater runoff of a representative 25-year, 24-hour storm event. |
| **88.** | Cannabis cultivators shall provide adequate outlet drainage for overflow of reservoirs that are not closed to the environment, including low impact designs, to promote dispersal and infiltration of flows. Reservoirs shall be designed with an adequate overflow outlet and protected spillway which disperses flow and discourages channelization. |
| **89.** | Cannabis cultivators shall implement an invasive species management plan prepared by a Qualified Biologist for any existing or proposed water storage facilities that are open to the environment. The plan shall include, at a minimum, an annual survey for bullfrogs and other invasive aquatic species. If bullfrogs or other invasive aquatic species are identified, eradication measures shall be implemented by a qualified biologist. Eradication methods can be direct or indirect. Direct methods may include hand-held dip net, hook and line, lights, spears, gigs, or fish tackle under a fishing license (pursuant to Fish and Game Code section 6855). An indirect method may involve seasonally timed complete dewatering and a drying period of the off-stream storage facility under a Permit to Destroy Harmful Species (pursuant to Fish and Game Code section 5501) issued by CDFW. |
| **90.** | Cannabis cultivators shall not cause or allow any overflow from off-stream water storage facilities that are closed to the environment (e.g., tanks and bladders) if the off-stream facilities are served by a diversion from surface water or groundwater. Cannabis cultivators shall regularly inspect for and repair all leaks of the diversion and storage system. |
| **91.** | Water storage tanks, bladders, and other off-stream water storage facilities that are closed to the environment shall not be located in a riparian setback or next to equipment that generates heat. Cannabis cultivators shall place water storage tanks, bladders, and other off-stream water storage facilities that are closed to the environment in areas that allow for ease of installation, access, maintenance, and minimize road development. |
| **92.** | Cannabis cultivators shall install vertical and horizontal tanks according to manufacturer's specifications and shall place tanks on properly compacted soil that is free of rocks and sharp objects and capable of bearing the weight of the tank and its maximum contents with minimal settlement. Tanks shall not be located in areas of slope instability. Cannabis cultivators shall install water storage tanks capable of containing more than 8,000 gallons only on a reinforced concrete pad providing adequate support and enough space to attach a tank restraint system (anchor using the molded-in tie down lugs with moderate tension, being careful not to over-tighten) per the recommendations of a qualified professional. |
| **93.** | To prevent rupture or overflow and runoff, cannabis cultivators shall only use water storage tanks and bladders equipped with a float valve, or equivalent device, to shut off diversion when storage systems are full. Cannabis cultivators shall install any other measures necessary to prevent overflow of storage systems to prevent runoff and the diversion of more water than can be used and/or stored. |

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| **94.** | Cannabis cultivators shall ensure that all vents and other openings on water storage tanks are designed to prevent the entry and/or entrapment of wildlife. |
| **95.** | Water storage bladders are not encouraged for long-term use. If bladders are used, the cannabis cultivator shall ensure that the bladder is designed and properly installed to store water and that the bladder is sited to minimize the potential for water to flow into a watercourse in the event of a catastrophic failure. If a storage bladder has been previously used, the cannabis cultivator shall carefully inspect the bladder to confirm its integrity and confirm the absence of any interior residual chemicals prior to resuming use. Cannabis cultivators shall periodically inspect water storage bladders and containment features to ensure integrity. Water storage bladders shall be properly disposed of or recycled and not resold when assurance of structural integrity is no longer guaranteed. |
| **96.** | Cannabis cultivators shall not use water storage bladders unless the bladder is safely contained within a secondary containment system with sufficient capacity to capture 150 percent of a bladder's maximum possible contents in the event of bladder failure (i.e., 150 percent of bladder's capacity). Secondary containment systems that are open to the environment shall be designed and maintained with sufficient freeboard to capture storm water runoff of a representative 25-year, 24-hour storm event. |
| **97.** | Cannabis cultivators shall retain appropriate documentation for any hauled water[21] used for cannabis cultivation. Documentation for hauled water shall include, for each delivery, all of the following:<br>1. A receipt that shows the date of delivery and the name, address, license plate number, and license plate issuing state for the water hauler,<br>2. A copy of the Water Hauler's License (California Health and Safety Code section 111120),<br>3. A copy of proof of the Water Hauler's water right, groundwater well, or other water source, and the location of the water source, and<br>4. The quantity of water delivered or picked up from a legal water source, in gallons.<br>Documentation shall be made available, upon request, to Water Boards or CDFW staff and any other authorized representatives of the Water Boards or CDFW. |
| **Water Conservation and Use** | |
| **98.** | Cannabis cultivators shall regularly inspect their entire water delivery system for leaks and immediately repair any leaky faucets, pipes, connectors, or other leaks. |
| **99.** | Cannabis cultivators shall use weed-free mulch in cultivation areas that do not have ground cover to conserve soil moisture and minimize evaporative loss. |
| **100.** | Cannabis cultivators shall implement water conserving irrigation methods (e.g., drip or trickle irrigation, micro-spray, or hydroponics). |
| **101.** | Cannabis cultivators shall maintain daily records of all water used for irrigation of cannabis. Daily records may be calculated by the use of a measuring device or, if known, by calculating the irrigation system rates and duration of time watered (e.g., irrigating for one |

[21] Water hauler means any person who hauls water in bulk by any means of transportation.

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| | hour twice per day using 50 half-gallon drips equates to 50 gallons per day (1*2*50*0.5) of water used for irrigation). Cannabis cultivators shall retain irrigation records at the cannabis cultivation site and shall make all irrigation records available for review by the Water Boards, CDFW and any other authorized representatives of the Water Boards or CDFW. |
| **Irrigation Runoff** | |
| **102.** | Cannabis cultivators shall regularly inspect for leaks in mainlines[22], laterals[23], in irrigation connections, sprinkler heads, or at the ends of drip tape and feeder lines and immediately repair any leaks found upon detection. |
| **103.** | The irrigation system shall be designed to include redundancy (e.g., safety valves) in the event that leaks occur, so that waste of water and runoff is prevented and minimized. |
| **104.** | Cannabis cultivators shall regularly replace worn, outdated, or inefficient irrigation system components and equipment to ensure a properly functioning, leak-free irrigation system at all times. |
| **105.** | Cannabis cultivators shall minimize irrigation deep percolation[24] to the maximum extent possible. |

[22] Mainlines are pipes that go from the water source to the control valves.
[23] Laterals are the pipes between the control valve and the sprinkler heads.
[24] Deep percolation occurs when excess irrigation water is applied and percolates below the plant root zone.

| Fertilizers, Pesticides, and Petroleum Products | |
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| **106.** | Cannabis cultivators shall not mix, prepare, over apply, or dispose of agricultural chemicals/products (e.g., fertilizers, pesticides[25], and other chemicals as defined in the applicable water quality control plan) in any location where they could enter the riparian setback or waters of the state. The use of agricultural chemicals inconsistently with product labeling, storage instructions, or DPR requirements for pesticide applications[26] is prohibited. Disposal of unused product and containers shall be consistent with labels. |
| **107.** | Cannabis cultivators shall keep and use absorbent materials designated for spill containment and spill cleanup equipment on-site for use in an accidental spill of fertilizers, petroleum products, hazardous materials, and other substances which may degrade waters of the state. The cannabis cultivator shall immediately notify the California Office of Emergency Services at 1-800-852-7550 and immediately initiate cleanup activities for all spills that could enter a waterbody or degrade groundwater. |
| **108.** | Cannabis cultivators shall establish and use a separate storage area for pesticides, and fertilizers, and another storage area for petroleum or other liquid chemicals (including diesel, gasoline, oils, etc.). All such storage areas shall comply with the riparian setback Requirements, be in a secured location in compliance with label instructions, outside of areas of known slope instability, and be protected from accidental ignition, weather, and wildlife. All storage areas shall have appropriate secondary containment structures, as necessary, to protect water quality and prevent spillage, mixing, discharge, or seepage. Storage tanks and containers must be of suitable material and construction to be compatible with the substances stored and conditions of storage, such as pressure and temperature. |
| **109.** | Throughout the wet season, Cannabis Cultivators shall ensure that any temporary storage areas have a permanent cover and side-wind protection or be covered during non-working days and prior to and during rain events. |

[25] Pesticide is defined as follows:
- Per California Code of Regulations Title 3. Division 6. Section 6000:
  (a) Any substance or mixture of substances that is a pesticide as defined in the Food and Agricultural Code and includes mixtures and dilutions of pesticides;
  (b) As the term is used in Section 12995 of the California Food and Agricultural Code, includes any substance or product that the user intends to be used for the pesticidal poison purposes specified in Sections 12753 and 12758 of the Food and Agricultural Code.
- Per California Food and Agricultural Code section 12753(b), the term "Pesticide" includes any of the following: Any substance, or mixture of substances which is intended to be used for defoliating plants, regulating plant growth, or for preventing, destroying, repelling, or mitigating any pest, as defined in Section 12754.5, which may infest or be detrimental to vegetation, man, animals, or households, or be present in any agricultural or nonagricultural environment whatsoever.
- In laymen's terms: "pesticide" includes: rodenticides, herbicides, insecticides, fungicides, and disinfectants.

[26] More information on DPR requirements is available at:
http://www.cdpr.ca.gov/docs/legbills/laws_regulations.htm,
http://www.cdpr.ca.gov/docs/county/cacltrs/penfltrs/penf2017/2017atch/attach0301.pdf, and
http://www.cdpr.ca.gov/docs/cannabis/index.htm

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| **110.** | Cannabis cultivators shall only use hazardous materials[27] in a manner consistent with the product's label. |
| **111.** | Cannabis cultivators shall only keep hazardous materials in their original containers with labels intact, and shall store hazardous materials to prevent exposure to sunlight, excessive heat, and precipitation. Cannabis cultivators shall provide secondary containment for hazardous materials to prevent possible exposure to the environment. Disposal of unused hazardous materials and containers shall be consistent with the label. |
| **112.** | Cannabis cultivators shall only mix, prepare, apply, or load hazardous materials outside of the riparian setbacks. |
| **113.** | Cannabis cultivators shall not apply agricultural chemicals within 48 hours of a predicted rainfall event of 0.25 inches or greater. |
| **Fertilizers and Soils** | |
| **114.** | To minimize infiltration and water quality degradation, Cannabis cultivators shall only irrigate and apply fertilizer to cannabis cultivation areas consistent with crop need (i.e., agronomic rate). |
| **115.** | When used, cannabis cultivators shall only apply nitrogen to cannabis cultivation areas consistent with crop need (i.e., agronomic rate). Cannabis cultivators shall not apply nitrogen at a rate greater than 319 pounds/acre/year unless plant tissue analysis performed by a qualified individual demonstrates the need for additional nitrogen application. The analysis shall be performed by an agricultural laboratory certified by the State Water Board's Environmental Laboratory Accreditation Program. |
| **116.** | Cannabis cultivators shall ensure that potting soil or soil amendments, when not in use, are placed and stored with covers, when needed, to protect from rainfall and erosion, to prevent discharge to Waters of the State, and to minimize leaching of waste constituents into groundwater. |
| **Pesticides and Herbicides** | |
| **117.** | Cannabis cultivators shall not apply restricted materials, including restricted pesticides, or allow restricted materials to be applied at the cannabis cultivation site. |
| **118.** | Cannabis cultivators shall implement integrated pest management strategies where possible to reduce the need and use of pesticides and the potential for discharges to waters of the state.[28] |

[27] A hazardous material is any item or agent (biological, chemical, radiological, and/or physical), which has the potential to cause harm to humans, animals, or the environment, either by itself or through interaction with other factors.

[28] https://www.epa.gov/safepestcontrol/integrated-pest-management-ipm-principles

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| **Petroleum Products and Other Chemicals** | |
| **119.** | Cannabis cultivators shall only perform maintenance or refueling of vehicles or equipment outside of riparian setbacks. Cannabis cultivators shall inspect all equipment using oil, hydraulic fluid, or petroleum products for leaks prior to use and shall monitor equipment for leakage. Stationary equipment (e.g., motors, pumps, generators, etc.) and vehicles not in use shall be located outside of riparian setbacks. Spill and containment equipment (e.g., oil spill booms, sorbent pads, etc.) shall be stored onsite at all locations where equipment is used or staged. |
| **120.** | Cannabis cultivators shall only store petroleum, petroleum products, and similar fluids in a manner that provides chemical compatibility; protection from accidental ignition, the sun, wind, rain; and secondary containment. |
| **121.** | Cannabis cultivators shall not install underground storage tanks for the storage of petroleum products for cannabis cultivation activities. Use of an existing underground storage tank already located on the cannabis cultivation site for storage of petroleum products for cannabis cultivation activities is subject to applicable federal, state, and local laws, regulations, and permitting requirements. |
| **Cultivation-Related Waste** | |
| **122.** | Cannabis cultivators shall contain and regularly remove all debris and trash associated with cannabis cultivation activities from the cannabis cultivation site. Cannabis cultivators shall only dispose of debris and trash at an authorized landfill or other disposal site in compliance with state and local laws, ordinances, and regulations. Cannabis cultivators shall not allow litter, plastic, or similar debris to enter the riparian setback or waters of the state. Cannabis plant material may be disposed of onsite in compliance with any applicable CDFA license conditions. |
| **123.** | Cannabis cultivators shall only dispose or reuse spent growth medium (e.g., soil and other organic media) in a manner that prevents discharge of soil and residual nutrients and chemicals to the riparian setback or Waters of the State. Spent growth medium shall be covered with plastic sheeting or stored in water tight dumpsters prior to proper disposal or reuse. Spent growth medium should be disposed of at an authorized landfill or other disposal site in compliance with state and local laws, ordinances, and regulations. Proper reuse of spent growth medium may include incorporation into garden beds or spreading on a stable surface and revegetating the surface with native plants. Cannabis cultivators shall use erosion control techniques, as needed, for any reused or stored spent growth medium to prevent polluted runoff. |
| **Refuse and Domestic Waste** | |
| **124.** | Cannabis cultivators shall ensure that debris, soil, silt, bark, slash, sawdust, rubbish, creosote-treated wood, raw cement and concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to any life stage of fish and wildlife or their habitat (includes food sources) does not contaminate soil or enter the riparian setback or Waters of the State. |
| **125.** | Cannabis cultivators shall not dispose of domestic wastewater unless it meets applicable |

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| | local agency and/or Regional Water Board requirements. Cannabis cultivators shall ensure that human or animal waste is disposed of properly. Cannabis cultivators shall ensure onsite wastewater treatment systems (e.g., septic system) are permitted by the local agency or applicable Regional Water Board. |
| **126.** | If used, chemical toilets or holding tanks shall be maintained in a manner appropriate for the frequency and conditions of usage, sited in stable locations, and comply with the riparian setback Requirements. |
| **Winterization** | |
| **127.** | Cannabis cultivators shall implement all applicable Erosion Control and Soil Disposal and Spoils Management Requirements in addition to the Winterization Requirements below by November 15 of each year, or earlier, if needed to prevent waste discharges that result in water quality degradation. |
| **128.** | Cannabis cultivators shall block or otherwise close any temporary roads to all motorized vehicles no later than November 15 of each year. |
| **129.** | Cannabis cultivators shall not operate heavy equipment of any kind at the cannabis cultivation site during the winter period (November 16 to March 31), unless authorized for emergency repairs contained in an enforcement order issued by the State Water Board, Regional Water Board, or other agency having jurisdiction. |
| **130.** | Cannabis cultivators shall apply linear sediment controls (e.g., silt fences, wattles, etc.) along the toe of the slope, face of the slope, and at the grade breaks of exposed slopes to comply with sheet flow length[29] at the frequency specified below. |

| Slope (percent) | Sheet Flow Length Not to Exceed (feet) |
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| 0 – 25 | 20 |
| 25 – 50 | 15 |
| >50 | 10 |

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| **131.** | Cannabis cultivators shall maintain all culverts, drop inlets, trash racks and similar devices to ensure they are not blocked by debris or sediment. The outflow of culverts shall be inspected to ensure erosion is not undermining the culvert. Culverts shall be inspected prior to the onset of fall and winter precipitation and following precipitation events to determine if maintenance or cleaning is required. |
| **132.** | Cannabis cultivators shall stabilize all disturbed areas and construction entrances and exits to control erosion and sediment discharges from land disturbance. |
| **133.** | Cannabis cultivators shall cover and berm all loose stockpiled construction materials (e.g., soil, spoils, aggregate, etc.) that are not actively (scheduled for use within 48 hours) being |

[29] Sheet flow length is the length that shallow, low velocity flow travels across a site.

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| | used. |
| **134.** | Cannabis cultivators shall apply erosion repair and control measures to the bare ground (e.g., cultivation area, access paths, etc.) to prevent discharge of sediment to Waters of the State. |
| **135.** | As part of the winterization plan approval process, the Regional Water Board may require cannabis cultivators to implement additional site-specific erosion and sediment control requirements if the implementation of the Requirements in this section do not adequately protect water quality. |

DRAFT

# SECTION 3 – NUMERIC AND NARRATIVE INSTREAM FLOW REQUIREMENTS (INCLUDING GAGING)

This section outlines the numeric and narrative instream flow Requirements established in this Policy.

The narrative instream flow Requirements apply to all diversions of surface water and groundwater for cannabis cultivation throughout California, in all 14 Regions. Numeric instream flow requirements are developed at compliance gages for the 14 Regions.

## Narrative Instream Flow Requirements

### Instream Flow Requirements for Surface Water Diversions

1. Surface water instream flow Requirements apply to anyone diverting water for cannabis cultivation from a waterbody. A waterbody is defined as any significant accumulation of water, such as: lakes, ponds, rivers, streams, creeks, springs or seeps[30], artesian wells, wetlands, and canals. Surface water instream flow Requirements also apply to water diverted from a subterranean stream flowing through a known and definite channel.

2. The instream flow Requirements and forbearance period listed in this section shall not apply to retail water suppliers, as defined in Section 13575 of the Water Code[31], whose primary beneficial use is municipal or domestic, unless any of the following circumstances are present:
    a. the retail water supplier has 10 or fewer customers;
    b. the retail water supplier delivers 10 percent or more of the diverted water to one or more cannabis cultivator(s) or cannabis cultivation site(s), as established by an assessor's parcel number;
    c. 25 percent or more of the water delivered by the retail water supplier is used for cannabis cultivation; or
    d. a cannabis cultivator and the retail water supplier are affiliates, as defined in California Code of Regulations, title 23, section 2814.20.

3. Surface Water Dry Season Forbearance Period: Cannabis cultivators shall not divert surface water for cannabis cultivation activities at any time from April 1 through October 31 of each calendar year, unless the water diverted is delivered from storage in compliance with Narrative Flow Requirement 4.

4. The authorized surface water diversion period is November 1 through March 31. During this diversion period, cannabis cultivators may only divert surface water for cannabis cultivation when water is available for diversion under the cannabis cultivator's priority of right and the applicable Numeric Flow Requirement (Section 4) is met at the assigned compliance gage. This includes direct diversion and diversion to storage. Numeric instream flow Requirements are established throughout the State and are calculated for

[30] A spring or seep is a place where water flows out of the ground. A spring or seep may flow the whole year or part of the year. Surface water instream flow Requirements apply to both natural springs and seeps and springs and seeps that are modified to improve production such as, installing piping and spring boxes/wells.

[31] Under Water Code section 13575(b)(5), "Retail water supplier" means any local entity, including a public agency, city, county, or private water company that provides retail water service.

the majority of USGS National Hydrologic Database plus 2 stream reaches where the USGS flow modeling data are available.

Cannabis cultivators that divert water from a waterbody with an assigned compliance gage in Section 4 of this Policy are required to ensure that the real-time daily average flow, as published on a designated compliance gage website identified by the Deputy Director for Water Rights, exceeds the minimum monthly instream flow Requirement at the cannabis cultivator's assigned compliance gage. Cannabis cultivators shall verify and document compliance with the applicable Numeric Flow Requirement on a daily basis for each day of surface water diversion.

5. In addition to Narrative Flow Requirement 4, at all times the cannabis cultivators shall bypass a minimum of 50 percent of the surface water flow past their point of diversion, as estimated based on visually observing surface water flow at least daily.

   Cannabis cultivators claiming, pursuant to Business and Professions Code section 26060.1, that a spring does not flow off their property by surface or subterranean means in the absence of diversion, may request an exemption from the minimum of 50 percent bypass requirement. In requesting such an exemption, cannabis cultivators shall provide substantial evidence demonstrating that the spring, seep, or artesian well does not have surface or subsurface hydrologic connectivity at any time of year during all water year types[32]. The substantial evidence must be documented by a qualified professional. For purposes of this Requirement, qualified professionals include California-registered Professional Geologists or other classifications of professions approved by the Deputy Director for Water Rights (Deputy Director). A list of qualified professionals that may document the substantial evidence required per this Requirement will be maintained on the Water Rights section of the State Water Board's Cannabis Cultivation webpage[33]. The Deputy Director may require additional information from the cannabis cultivator to support the request. If the Deputy Director concurs with the evidence provided, the cannabis cultivator may be exempted from the Policy's Requirement to bypass a minimum of 50 percent of the surface water flow. Compliance with the Policy's minimum monthly flow Requirement (Narrative Flow Requirement 4) shall still apply. Notwithstanding such an exemption, all other applicable Requirements of this Policy remain in force.

6. From November 1 through December 14 of each year, the surface water diversion period shall not begin until after seven consecutive days in which the surface waterbody's real-time daily average flow is greater than the Numeric Flow Requirement (applicable minimum monthly instream flow Requirement in Section 4). The first day of the seven consecutive days must occur on or after November 1. After the seventh consecutive day with average flow greater than the Numeric Flow Requirement, surface water diversions may occur on any subsequent days in which the real-time daily average flow is greater than the Numeric Flow Requirement (applicable minimum monthly instream flow Requirement in Section 4). For example, if the daily average flows on each day from November 1 through November 7 of a given year are greater than the Numeric Flow Requirement for November (applicable November monthly minimum flow Requirement), diversion may begin on November 8 if the daily average flow on

[32] Including during any precipitation and runoff events.
[33] State Water Board's Cannabis Cultivation webpage: http://www.waterboards.ca.gov/water_issues/programs/cannabis/index.shtml

November 8 is also greater than the November Numeric Flow Requirement. From December 15 through March 31 of each surface water diversion period, surface water diversions may occur on any day in which the surface waterbody's real-time daily average flow is greater than the Numeric Flow Requirement (applicable minimum monthly instream flow Requirement).

7. The State Water Board has developed Numeric instream flow Requirements (minimum instream flow requirements) for each compliance gage in Section 4, Table 1 through Table 14, to ensure that individual and cumulative effects of water diversion and discharge associated with cannabis cultivation do not affect the instream flows needed for fish spawning, migration, and rearing, and the flows needed to maintain natural flow variability. If the individual and cumulative effects of diversions result in unanticipated impacts, however, the State Water Board may revise the narrative and/or numeric instream flow Requirements to better protect instream resources, habitat, and natural flow variability.

### Requirements for Groundwater Diversions

8. This Policy establishes a low flow threshold, calculated by applying the New England Aquatic Base Flow Standard, as one mechanism to help monitor whether groundwater diverters are having a cumulative negative impact on surface flows. The State Water Board may develop additional requirements for groundwater diversions for cannabis cultivation in locations where there are a significant number of groundwater diversions or locations where significant numbers of surface water diverters are switching to groundwater diversions and those diversions have the potential to have negative localized impact on surface flows.

9. The instream flow Requirements listed in narrative flow Requirement 8 (low flow threshold) shall not apply to retail water suppliers, as defined in Section 13575 of the Water Code[34], whose primary beneficial use is municipal or domestic, unless any of the following circumstances are present:
    a. the retail water supplier has 10 or fewer customers;
    b. the retail water supplier delivers 10 percent or more of the diverted water to one or more cannabis cultivator(s) or cannabis cultivation site(s), as established by an assessor's parcel number;
    c. 25 percent or more of the water delivered by the retail water supplier is used for cannabis cultivation; or
    d. a cannabis cultivator and the retail water supplier are affiliates, as defined in California Code of Regulations, title 23, section 2814.20.

## Gage Installation, Maintenance, and Operation Requirements

The Deputy Director for Water Rights (Deputy Director) may require cannabis cultivators to install and operate a local telemetry gage in ungaged watersheds or localized watershed areas if the Deputy Director determines that use of the assigned compliance gage does not adequately protect instream flows or does not adequately represent the localized water demand. The Deputy Director may also require the installation and operation of a local

[34] Water Code Chapter 7.5. Water Recycling Act of 1991, Section 13575(b)(5) "Retail water supplier" means any local entity, including a public agency, city, county, or private water company that provides retail water service.

telemetry gage in watersheds with no gage assignment if the Deputy Director determines that a gage is necessary to adequately protect instream flows.

Cannabis cultivators shall ensure that gages required by the Deputy Director are installed, maintained, and operated by a qualified professional. For purposes of this Requirement, qualified professionals include California-registered Professional Civil Engineers, or other classifications of professions approved by the Deputy Director. A list of qualified professionals that may document compliance with this Requirement will be maintained in the Water Rights section of the State Water Board's Cannabis Cultivation webpage[35]. Gage equipment shall meet the applicable technical specifications for telemetered measuring devices in California Code of Regulations, title 23, section 933, that apply to diversions of over 10,000 acre-feet per year or more. Gages shall record data at a minimum of 15-minute intervals and report the recorded real-time data hourly, at a minimum, via a public website designated by the State Water Board's Division of Water Rights (Division of Water Rights).

Cannabis cultivators, or an entity acting on behalf of cannabis cultivators, shall submit a gage operation and maintenance (O&M) plan prepared by a qualified professional, as defined in the preceding paragraph, to the Deputy Director or the Deputy Director's designee for approval. At a minimum, the gage O&M plan shall include qualifications and names of entities responsible for gage installation, maintenance, and operation; gage specifications and accuracy; gage location; gage installation procedures that ensure accurate operation during the wet season and stability during high flow events; stream flow measurement procedures for development of rating curves that represent wet season flows; telemetry equipment; and an O&M schedule and procedures. The Deputy Director may require additional information from the cannabis cultivator to support the request. The Deputy Director may include additional requirements as part of any approval of a gage O&M plan.

Prior to October 31, during each water year of gage operation, an annual maintenance and operation summary report prepared by a qualified professional, as defined above in this Requirement, shall be submitted to the Division of Water Rights that includes, at a minimum: qualifications and names of entities responsible for maintenance and operation; maintenance activities or operational issues for the prior water year of operation; quality assured gage stage and flow data collected and analyzed for prior water year; rating curves for prior and upcoming water year of operation; data collected to establish rating curves for prior and upcoming water year of operation; and any anticipated maintenance plans or operational issues for the upcoming water year. The gage data shall be provided to the Division of Water Rights in a format retrievable and viewable using Microsoft Excel, Microsoft Access, or other software program authorized by the Deputy Director.

[35] State Water Board's cannabis cultivation webpage: http://www.waterboards.ca.gov/water_issues/programs/cannabis/index.shtml

# SECTION 4 – WATERSHED COMPLIANCE GAGE ASSIGNMENTS

## Watershed Compliance Gage Assignments

The following tables show the compliance gage numeric instream flow Requirements by Region. The State Water Board is developing an online mapping tool to assist cannabis cultivators with determining which compliance gage applies to them and whether they may divert water. It is anticipated that the online mapping tool will allow cannabis cultivators to enter their address or otherwise locate their point of diversion to identify their assigned watershed compliance gage. The compliance gage assignments may change as more information becomes available. To ensure cannabis cultivators are reporting in accordance with the appropriate gage, the cannabis cultivator is required to check the website for their compliance gage assignment at least daily and prior to diverting water to ensure water is available to divert at that gage (i.e., the real-time daily average flow is greater than the Numeric Flow Requirement at the assigned compliance gage).

## Table 1. Klamath Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | Source | November *(cfs)* | December *(cfs)* | January *(cfs)* | February *(cfs)* | March *(cfs)* | Groundwater Low Flow Threshold *(cfs)* |
|---|---|---|---|---|---|---|---|---|
| 11516530 | KLAMATH R BL IRON GATE DAM CA | USGS | 828 | 828 | 828 | 828 | 1,013 | 1,287 |
| 11517000 | SHASTA R NR MONTAGUE CA | USGS | 114 | 114 | 114 | 176 | 194 | 169 |
| 11517500 | SHASTA R NR YREKA CA | USGS | 128 | 128 | 129 | 197 | 222 | 188 |
| 11519500 | SCOTT R NR FORT JONES CA | USGS | 293 | 327 | 467 | 454 | 379 | 161 |
| 11520500 | KLAMATH R NR SEIAD VALLEY CA | USGS | 1,364 | 1,364 | 1,364 | 1,433 | 2,354 | 1,807 |
| 11521500 | INDIAN C NR HAPPY CAMP CA | USGS | 181 | 368 | 372 | 365 | 319 | 35 |
| 11522500 | SALMON R A SOMES BAR CA | USGS | 758 | 1,035 | 1,306 | 1,265 | 1,243 | 202 |
| 11523000 | KLAMATH R A ORLEANS | USGS | 2,631 | 2,631 | 2,631 | 3,424 | 5,131 | 1,156 |
| 11523200 | TRINITY R AB COFFEE C NR TRINITY CENTER CA | USGS | 162 | 162 | 185 | 220 | 257 | 39 |
| 11525530 | RUSH C NR LEWISTON CA | USGS | 15 | 22 | 29 | 31 | 31 | 2 |
| 11525630 | GRASS VALLEY C NR LEWISTON CA | USGS | 23 | 32 | 48 | 51 | 47 | 3.7 |
| 11525670 | INDIAN C NR DOUGLAS CITY CA | USGS | 20 | 28 | 40 | 44 | 43 | 3 |
| 11525854 | TRINITY R A DOUGLAS CITY CA | USGS | 957 | 1,022 | 1,388 | 1,628 | 1,492 | 228 |
| 11526400 | TRINITY R AB NF TRINITY R NR HELENA CA | USGS | 1,122 | 1,237 | 1,702 | 1,951 | 1,782 | 273 |
| 11526500 | NF TRINITY R A HELENA CA | USGS | 146 | 175 | 246 | 269 | 253 | 32 |
| 11527000 | TRINITY R NR BURNT RANCH CA | USGS | 1,320 | 1,534 | 2,105 | 2,415 | 2,239 | 324 |
| 11528700 | SF TRINITY R BL HYAMPOM CA | USGS | 572 | 898 | 1,331 | 1,372 | 1,255 | 77 |
| 11530000 | TRINITY R A HOOPA CA | USGS | 2,349 | 3,440 | 4,712 | 5,165 | 4,772 | 423 |
| 11530500 | KLAMATH R NR KLAMATH CA | USGS | 9,785 | 10,162 | 14,400 | 13,657 | 16,450 | 4,789 |

| Gage Number | Gage Name | Source | November *(cfs)* | December *(cfs)* | January *(cfs)* | February *(cfs)* | March *(cfs)* | Groundwater Low Flow Threshold *(cfs)* |
|---|---|---|---|---|---|---|---|---|
| 11532500 | SMITH R NR CRESCENT CITY CA | USGS | 1,758 | 3,261 | 3,382 | 2,865 | 2,623 | 288 |
| CLE | TRINITY LAKE | US Bureau of Reclamation | 749 | 849 | 1,117 | 1,288 | 1,169 | 188 |
| SPU | SHASTA R AT GRENADA PUMP PLANT | DWR, NRO | 47 | 47 | 47 | 68 | 77 | 47 |

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### Table 2. Upper Sacramento Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | Source | November *(cfs)* | December *(cfs)* | January *(cfs)* | February *(cfs)* | March *(cfs)* | Groundwater Low Flow Threshold *(cfs)* |
|---|---|---|---|---|---|---|---|---|
| 11342000 | SACRAMENTO R A DELTA CA | USGS | 486 | 645 | 800 | 1,037 | 894 | 139 |
| 11345500 | SF PIT R NR LIKELY CA | USGS | 28 | 28 | 28 | 28 | 28 | 35 |
| 11348500 | PIT R NR CANBY CA | USGS | 125 | 132 | 116 | 116 | 116 | 122 |
| 11361000 | BURNEY C A BURNEY FALLS NR BURNEY CA | USGS | 84 | 84 | 94 | 123 | 132 | 58 |
| HCB | HAT CK BLW HAT CK | DWR | 85 | 85 | 85 | 85 | 99 | 83 |
| HCN | HAT CK NR HAT CK | DWR | 73 | 74 | 74 | 74 | 76 | 60 |
| SDT | SACRAMENTO R AT DELTA | US Bureau of Reclamation | 486 | 645 | 800 | 1,037 | 894 | 139 |
| SHA | SHASTA DAM (USBR) | US Bureau of Reclamation | 1,792 | 1,792 | 2,207 | 3,096 | 4,145 | 904 |

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### Table 3. North Eastern Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | Source | November *(cfs)* | December *(cfs)* | January *(cfs)* | February *(cfs)* | March *(cfs)* | Groundwater Low Flow Threshold *(cfs)* |
|---|---|---|---|---|---|---|---|---|
| SSD | SUSAN R NR STANDISH | DWR | 65 | 65 | 65 | 73 | 81 | 44 |
| SSU | SUSAN RIVER AT SUSANVILLE | DWR | 54 | 54 | 54 | 56 | 71 | 39 |
| WCD | WILLOW CREEK NEAR STANDISH | DWR | 99 | 99 | 99 | 106 | 115 | 76 |

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## Table 4. North Coast Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | Source | November *(cfs)* | December *(cfs)* | January *(cfs)* | February *(cfs)* | March *(cfs)* | Groundwater Low Flow Threshold *(cfs)* |
|---|---|---|---|---|---|---|---|---|
| 11473900 | MF EEL R NR DOS RIOS CA | USGS | 621 | 1,138 | 1,592 | 1,450 | 1,279 | 18 |
| 11475000 | EEL R A FORT SEWARD CA | USGS | 1,918 | 3,768 | 5,252 | 4,850 | 3,814 | 73 |
| 11475560 | ELDER C NR BRANSCOMB CA | USGS | 11 | 25 | 31 | 25 | 22 | 0.97 |
| 11475610 | CAHTO C NR LAYTONVILLE CA | USGS | 7.9 | 18 | 23 | 19 | 15 | 0.51 |
| 11475800 | SF EEL R A LEGGETT CA | USGS | 347 | 783 | 980 | 851 | 665 | 25 |
| 11476500 | SF EEL R NR MIRANDA CA | USGS | 749 | 1,708 | 2,125 | 1,857 | 1,424 | 54 |
| 11476600 | BULL C NR WEOTT CA | USGS | 45 | 102 | 123 | 112 | 88 | 1.9 |
| 11477000 | EEL R A SCOTIA CA | USGS | 3,293 | 7,218 | 9,280 | 8,443 | 6,013 | 145 |
| 11478500 | VAN DUZEN R NR BRIDGEVILLE CA | USGS | 323 | 728 | 814 | 748 | 627 | 12 |
| 11480390 | MAD R AB RUTH RES NR FOREST GLEN CA | USGS | 100 | 213 | 257 | 247 | 203 | 0.57 |
| 11481000 | MAD R NR ARCATA CA | USGS | 641 | 1,406 | 1,555 | 1,453 | 1,245 | 57 |
| 11481200 | LITTLE R NR TRINIDAD CA | USGS | 54 | 127 | 132 | 111 | 101 | 6.3 |
| 11481500 | REDWOOD C NR BLUE LAKE CA | USGS | 96 | 197 | 221 | 211 | 203 | 6.7 |
| 11482500 | REDWOOD C A ORICK CA | USGS | 406 | 901 | 987 | 856 | 794 | 28 |
| ERS | EEL RIVER AT SCOTIA | CDFW | 3,293 | 7,218 | 9,280 | 8,443 | 6,013 | 145 |

## Table 5. Middle Sacramento Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | Source | November *(cfs)* | December *(cfs)* | January *(cfs)* | February *(cfs)* | March *(cfs)* | Groundwater Low Flow Threshold *(cfs)* |
|---|---|---|---|---|---|---|---|---|
| 11370500 | SACRAMENTO R A KESWICK CA | USGS | 1,786 | 1,786 | 2,275 | 3,155 | 3,802 | 914 |
| 11372000 | CLEAR C NR IGO CA | USGS | 197 | 296 | 403 | 503 | 406 | 35 |
| 11374000 | COW C NR MILLVILLE CA | USGS | 284 | 500 | 722 | 690 | 557 | 29 |
| 11376000 | COTTONWOOD C NR COTTONWOOD CA | USGS | 461 | 758 | 1,215 | 1,265 | 995 | 45 |
| 11376550 | BATTLE C BL COLEMAN FISH HATCHERY NR COTTONWOOD CA | USGS | 185 | 185 | 255 | 284 | 264 | 171 |
| 11377100 | SACRAMENTO R AB BEND BRIDGE NR RED BLUFF CA | USGS | 2,550 | 2,676 | 3,841 | 5,157 | 5,106 | 1,291 |
| 11379500 | ELDER C NR PASKENTA CA | USGS | 46 | 70 | 123 | 129 | 101 | 3 |
| 11381500 | MILL C NR LOS MOLINOS CA | USGS | 101 | 101 | 142 | 148 | 159 | 46 |
| 11383500 | DEER C NR VINA CA | USGS | 165 | 171 | 246 | 267 | 289 | 49 |
| 11390500 | SACRAMENTO R BL WILKINS SLOUGH NR GRIMES CA | USGS | 5,668 | 7,679 | 14,170 | 12,964 | 12,083 | 854 |
| BIC | BIG CHICO CREEK NEAR CHICO | DWR | 66 | 74 | 125 | 138 | 135 | 16 |
| BLB | BLACK BUTTE | US Army Corps of Engineers | 278 | 422 | 749 | 796 | 615 | 29 |
| GRI | GRINDSTONE CK NR GRINDSTONE RANCHERIA | US Bureau of Reclamation | 93 | 136 | 228 | 222 | 179 | 12 |
| MUC | MUD CREEK NEAR CHICO | DWR | 78 | 89 | 162 | 180 | 181 | 14 |
| NCO | N FK COTTONWOOD CK ABV LK AT BRDG NR ONO | DWR, NRO | 9.5 | 14 | 20 | 22 | 19 | 1.5 |
| SCG | STONY CK NR GRIZZLY FLAT (CO RD 200A) | US Bureau of Reclamation | 258 | 391 | 698 | 732 | 572 | 26 |
| SUW | STONY CREEK NR SUWANNA RANCH (CO RD 410) | US Bureau of Reclamation | 119 | 185 | 328 | 343 | 257 | 12 |
| THO | THOMES CREEK AT PASKENTA | DWR | 149 | 217 | 334 | 348 | 281 | 17 |

## Table 6. Southern Sacramento Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | Source | November *(cfs)* | December *(cfs)* | January *(cfs)* | February *(cfs)* | March *(cfs)* | Groundwater Low Flow Threshold *(cfs)* |
|---|---|---|---|---|---|---|---|---|
| 11335000 | COSUMNES R A MICHIGAN BAR CA | USGS | 170 | 190 | 323 | 391 | 382 | 23 |
| 11336580 | MORRISON C NR SACRAMENTO CA | USGS | 3.4 | 4.1 | 12 | 13 | 9.2 | 0.94 |
| 11336585 | LAGUNA C NR ELK GROVE CA | USGS | 2.5 | 3.1 | 9.4 | 10 | 7 | 0.73 |
| 11401920 | SPANISH C A QUINCY CA | USGS | 55 | 58 | 74 | 86 | 91 | 17 |
| 11402000 | SPANISH C AB BLACKHAWK C AT KEDDIE CA | USGS | 118 | 118 | 154 | 182 | 190 | 34 |
| 11413000 | N YUBA R BL GOODYEARS BAR CA | USGS | 292 | 321 | 385 | 416 | 435 | 84 |
| 11421000 | YUBA R NR MARYSVILLE CA | USGS | 1,102 | 1,380 | 1,736 | 1,929 | 1,964 | 324 |
| 11425500 | SACRAMENTO R A VERONA CA | USGS | 10,548 | 14,051 | 25,774 | 24,889 | 22,688 | 1,424 |
| 11427000 | NF AMERICAN R A NORTH FORK DAM CA | USGS | 284 | 354 | 429 | 471 | 456 | 85 |
| 11447360 | ARCADE C NR DEL PASO HEIGHTS CA | USGS | 3.3 | 4.4 | 13 | 13 | 11 | 0.81 |
| 11447650 | SACRAMENTO R A FREEPORT CA | USGS | 7,256 | 7,645 | 12,738 | 16,071 | 14,817 | 2,601 |
| 11449500 | KELSEY C NR KELSEYVILLE CA | USGS | 29 | 54 | 78 | 84 | 58 | 3.3 |
| 11451000 | CACHE C NR LOWER LAKE CA | USGS | 277 | 446 | 814 | 821 | 610 | 19 |
| 11451100 | NF CACHE C A HOUGH SPRING NR CLEARLAKE OAKS CA | USGS | 43 | 77 | 125 | 123 | 93 | 1 |
| 11451300 | NF CACHE C NR CLEARLAKE OAKS CA | USGS | 60 | 93 | 166 | 176 | 135 | 5.2 |
| 11451715 | BEAR C AB HOLSTEN CHIMNEY CYN NR RUMSEY CA | USGS | 16 | 33 | 67 | 74 | 49 | 1.5 |
| 11451800 | CACHE C A RUMSEY CA | USGS | 437 | 645 | 1,346 | 1,300 | 979 | 30 |

| Gage Number | Gage Name | Source | November *(cfs)* | December *(cfs)* | January *(cfs)* | February *(cfs)* | March *(cfs)* | Groundwater Low Flow Threshold *(cfs)* |
|---|---|---|---|---|---|---|---|---|
| 11453500 | PUTAH C NR GUENOC CA | USGS | 82 | 137 | 234 | 251 | 172 | 4 |
| 11455420 | SACRAMENTO R A RIO VISTA CA | USGS | 14,009 | 19,070 | 35,609 | 34,051 | 30,009 | 1,715 |
| BPG | BEAR RIVER AT PLEASANT GROVE RD | DWR | 133 | 150 | 252 | 301 | 270 | 18 |
| CMF | COSUMNES R MID FORK NR SOMERSET | DWR | 53 | 53 | 73 | 91 | 98 | 19 |
| CNF | COSUMNES R N FORK NR EL DORADO | DWR | 91 | 94 | 146 | 173 | 177 | 32 |
| FOL | FOLSOM LAKE | US Bureau of Reclamation | 1,177 | 1,228 | 1,603 | 1,838 | 1,904 | 413 |
| FSB | FEATHER R ABV STAR BEND | DWR, NCRO | 3,331 | 3,331 | 4,258 | 5,051 | 5,297 | 1,165 |
| GRL | FEATHER RIVER NEAR GRIDLEY | DWR, O&M | 2,152 | 2,179 | 2,537 | 3,050 | 3,162 | 704 |
| ICR | INDIAN CREEK BELOW INDIAN FALLS | DWR | 188 | 188 | 203 | 302 | 362 | 54 |
| KCK | KELSEY CK BLW KELSEYVILLE | DWR | 32 | 56 | 88 | 95 | 66 | 2.9 |
| MCU | MIDDLE CK NR UPPER LAKE | DWR | 31 | 52 | 83 | 85 | 72 | 1.8 |
| MER | FEATHER RIVER AT MERRIMAC | DWR, O&M | 514 | 514 | 586 | 771 | 921 | 167 |
| MFP | MIDDLE FORK FEATHER RIVER NEAR PORTOLA | DWR | 94 | 94 | 94 | 112 | 127 | 83 |
| ORO | OROVILLE DAM | DWR, O&M | 2,128 | 2,147 | 2,509 | 3,014 | 3,036 | 696 |
| SFH | SOUTH HONCUT CREEK NEAR BANGOR | DWR, NCRO | 22 | 38 | 61 | 62 | 50 | 0.86 |

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## Table 7. North Central Coast Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | Source | November *(cfs)* | December *(cfs)* | January *(cfs)* | February *(cfs)* | March *(cfs)* | Groundwater Low Flow Threshold *(cfs)* |
|---|---|---|---|---|---|---|---|---|
| 11456000 | NAPA R NR ST HELENA CA | USGS | 52 | 88 | 153 | 159 | 110 | 1.6 |
| 11458000 | NAPA R NR NAPA CA | USGS | 109 | 172 | 335 | 342 | 229 | 3.5 |
| 11458500 | SONOMA C A AGUA CALIENTE CA | USGS | 38 | 65 | 110 | 117 | 76 | 3.7 |
| 11459500 | NOVATO C A NOVATO CA | USGS | 7.5 | 13 | 23 | 24 | 15 | 0.46 |
| 11460000 | CORTE MADERA C A ROSS CA | USGS | 10 | 20 | 32 | 32 | 20 | 0.7 |
| 11460151 | REDWOOD C A HWY 1 BRIDGE A MUIR BEACH CA | USGS | 4.6 | 8.2 | 13 | 11 | 7.3 | 0.36 |
| 11461000 | RUSSIAN R NR UKIAH CA | USGS | 69 | 138 | 197 | 189 | 143 | 3.8 |
| 11463000 | RUSSIAN R NR CLOVERDALE CA | USGS | 324 | 606 | 940 | 935 | 677 | 8.9 |
| 11463200 | BIG SULPHUR C NR CLOVERDALE CA | USGS | 63 | 115 | 181 | 190 | 128 | 2.9 |
| 11463900 | MAACAMA C NR KELLOGG CA | USGS | 35 | 61 | 103 | 103 | 73 | 1.4 |
| 11464000 | RUSSIAN R NR HEALDSBURG CA | USGS | 521 | 972 | 1,522 | 1,539 | 1,082 | 14 |
| 11465200 | DRY C NR GEYSERVILLE CA | USGS | 131 | 253 | 391 | 379 | 253 | 6.7 |
| 11465750 | LAGUNA DE SANTA ROSA C NR SEBASTOPOL CA | USGS | 33 | 53 | 103 | 101 | 66 | 3.8 |
| 11466320 | SANTA ROSA C A WILLOWSIDE RD NR SANTA ROSA CA | USGS | 44 | 76 | 132 | 135 | 89 | 2 |
| 11466800 | MARK WEST C NR MIRABEL HEIGHTS CA | USGS | 134 | 226 | 407 | 412 | 273 | 7.2 |
| 11467000 | RUSSIAN R NR GUERNEVILLE CA | USGS | 878 | 1,645 | 2,585 | 2,592 | 1,829 | 26 |
| 11467200 | AUSTIN C NR CAZADERO CA | USGS | 64 | 139 | 184 | 179 | 120 | 1.3 |
| 11467510 | SF GUALALA R NR THE | USGS | 149 | 323 | 437 | 424 | 279 | 4.9 |

| Gage Number | Gage Name | Source | November *(cfs)* | December *(cfs)* | January *(cfs)* | February *(cfs)* | March *(cfs)* | Groundwater Low Flow Threshold *(cfs)* |
|---|---|---|---|---|---|---|---|---|
| | SEA RANCH CA | | | | | | | |
| 11467553 | NF GUALALA R AB SF GUALALA R NR GUALALA CA | USGS | 39 | 77 | 117 | 107 | 80 | 3.9 |
| 11468000 | NAVARRO R NR NAVARRO CA | USGS | 200 | 407 | 611 | 557 | 422 | 8.4 |
| 11468500 | NOYO R NR FORT BRAGG CA | USGS | 82 | 169 | 240 | 212 | 175 | 5.5 |
| 11468900 | MATTOLE R NR ETTERSBURG CA | USGS | 113 | 268 | 306 | 265 | 212 | 7.8 |
| 11469000 | MATTOLE R NR PETROLIA CA | USGS | 406 | 942 | 1,118 | 960 | 769 | 27 |

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## Table 8. Tahoe Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | Source | November *(cfs)* | December *(cfs)* | January *(cfs)* | February *(cfs)* | March *(cfs)* | Groundwater Low Flow Threshold *(cfs)* |
|---|---|---|---|---|---|---|---|---|
| 10296000 | W WALKER RV BLW L WALKER RV NR COLEVILLE, CA | USGS | 89 | 102 | 102 | 102 | 102 | 79 |
| 10296500 | W WALKER RV NR COLEVILLE, CA | USGS | 103 | 106 | 106 | 106 | 106 | 92 |
| 10308200 | E FK CARSON RV BLW MARKLEEVILLE CK NR MARKLEEVILLE | USGS | 117 | 137 | 137 | 137 | 137 | 71 |
| 10310000 | W FK CARSON RV AT WOODFORDS, CA | USGS | 35 | 41 | 41 | 41 | 41 | 22 |
| 10336610 | UPPER TRUCKEE RV AT SOUTH LAKE TAHOE, CA | USGS | 27 | 35 | 35 | 35 | 35 | 11 |
| 10336645 | GENERAL C NR MEEKS BAY CA | USGS | 5 | 6.2 | 6.2 | 6.2 | 6.2 | 1.2 |
| 10336660 | BLACKWOOD C NR TAHOE CITY CA | USGS | 11 | 13 | 13 | 13 | 13 | 2.1 |
| 10336780 | TROUT CK NR TAHOE VALLEY, CA | USGS | 14 | 14 | 14 | 14 | 14 | 15 |
| 10343500 | SAGEHEN C NR TRUCKEE CA | USGS | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 2.2 |

## Table 9. South Central Coast Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | Source | November *(cfs)* | December *(cfs)* | January *(cfs)* | February *(cfs)* | March *(cfs)* | Groundwater Low Flow Threshold *(cfs)* |
|---|---|---|---|---|---|---|---|---|
| 11141280 | LOPEZ C NR ARROYO GRANDE CA | USGS | 3.8 | 3.8 | 8.1 | 10 | 8.4 | 2.2 |
| 11143000 | BIG SUR R NR BIG SUR CA | USGS | 38 | 43 | 90 | 102 | 85 | 13 |
| 11143200 | CARMEL R A ROBLES DEL RIO CA | USGS | 40 | 67 | 158 | 210 | 162 | 3.9 |
| 11143250 | CARMEL R NR CARMEL CA | USGS | 40 | 71 | 175 | 244 | 181 | 5.5 |
| 11147500 | SALINAS R A PASO ROBLES CA | USGS | 20 | 43 | 117 | 149 | 114 | 1.9 |
| 11148500 | ESTRELLA R NR ESTRELLA CA | USGS | 22 | 28 | 61 | 96 | 91 | 0.99 |
| 11148900 | NACIMIENTO R BL SAPAQUE C NR BRYSON CA | USGS | 27 | 63 | 156 | 177 | 124 | 0 |
| 11149400 | NACIMIENTO R BL NACIMIENTO DAM NR BRADLEY CA | USGS | 16 | 34 | 108 | 118 | 80 | 0.28 |
| 11149900 | SAN ANTONIO R NR LOCKWOOD CA | USGS | 33 | 65 | 140 | 168 | 113 | 6.8 |
| 11150500 | SALINAS R NR BRADLEY CA | USGS | 75 | 136 | 350 | 411 | 399 | 4.4 |
| 11151300 | SAN LORENZO C BL BITTERWATER C NR KING CITY CA | USGS | 3.9 | 7.7 | 18 | 24 | 23 | 0.47 |
| 11151700 | SALINAS R A SOLEDAD CA | USGS | 107 | 167 | 429 | 519 | 497 | 11 |
| 11152000 | ARROYO SECO NR SOLEDAD CA | USGS | 64 | 99 | 206 | 280 | 209 | 9.8 |
| 11152050 | ARROYO SECO BL RELIZ C NR SOLEDAD CA | USGS | 57 | 96 | 208 | 278 | 189 | 8.4 |
| 11152500 | SALINAS R NR SPRECKELS CA | USGS | 125 | 219 | 539 | 666 | 618 | 16 |
| 11153000 | PACHECO C NR DUNNEVILLE CA | USGS | 4.2 | 9.7 | 27 | 36 | 24 | 0.37 |
| 11153650 | LLAGAS C NR GILROY | USGS | 11 | 18 | 59 | 53 | 37 | 0.87 |
| 11156500 | SAN BENITO R NR WILLOW CREEK SCHOOL CA | USGS | 7 | 17 | 34 | 59 | 50 | 0.55 |
| 11157500 | TRES PINOS C NR TRES PINOS CA | USGS | 3.5 | 10 | 29 | 35 | 26 | 0.58 |
| 11158600 | SAN BENITO R A HWY 156 NR HOLLISTER CA | USGS | 15 | 32 | 79 | 99 | 80 | 1.8 |
| 11159000 | PAJARO R A CHITTENDEN CA | USGS | 50 | 91 | 288 | 279 | 210 | 3.5 |
| 11159200 | CORRALITOS C A FREEDOM CA | USGS | 10 | 16 | 29 | 28 | 22 | 2.3 |
| 11160000 | SOQUEL C A SOQUEL CA | USGS | 17 | 26 | 45 | 48 | 37 | 2.3 |

| Gage Number | Gage Name | Source | November *(cfs)* | December *(cfs)* | January *(cfs)* | February *(cfs)* | March *(cfs)* | Groundwater Low Flow Threshold *(cfs)* |
|---|---|---|---|---|---|---|---|---|
| 11160500 | SAN LORENZO R A BIG TREES CA | USGS | 52 | 71 | 129 | 145 | 110 | 16 |
| 11161000 | SAN LORENZO R A SANTA CRUZ CA | USGS | 57 | 83 | 144 | 159 | 119 | 17 |
| 11162500 | PESCADERO C NR PESCADERO CA | USGS | 12 | 23 | 43 | 47 | 36 | 2.5 |
| 11162570 | SAN GREGORIO C A SAN GREGORIO CA | USGS | 16 | 25 | 45 | 45 | 35 | 0.9 |
| 11162630 | PILARCITOS C A HALF MOON BAY CA | USGS | 8.5 | 11 | 21 | 21 | 17 | 1.7 |
| 11164500 | SAN FRANCISQUITO C A STANFORD UNIVERSITY CA | USGS | 11 | 17 | 38 | 40 | 29 | 0.59 |
| 11166000 | MATADERO C A PALO ALTO CA | USGS | 1.4 | 1.6 | 4.8 | 5.4 | 3.2 | 0.31 |
| 11169025 | GUADALUPE R ABV HWY 101 A SAN JOSE CA | USGS | 38 | 58 | 168 | 161 | 104 | 1.5 |
| 11169500 | SARATOGA C A SARATOGA CA | USGS | 3.1 | 5.1 | 9 | 10 | 8 | 0.59 |
| 11169800 | COYOTE C NR GILROY CA | USGS | 7.3 | 19 | 57 | 65 | 45 | 0 |
| 11172175 | COYOTE C AB HWY 237 A MILPITAS CA | USGS | 20 | 52 | 134 | 147 | 100 | 1.6 |
| 11172945 | ALAMEDA C AB DIV DAM NR SUNOL CA | USGS | 4.2 | 10 | 21 | 23 | 19 | 0.18 |
| 11173200 | ARROYO HONDO NR SAN JOSE CA | USGS | 8.8 | 20 | 44 | 49 | 39 | 0.66 |
| 11173800 | INDIAN C NR SUNOL CA | USGS | 0.8 | 2 | 4.1 | 4.2 | 3.8 | 0 |
| 11174600 | ALAMO CN NR PLEASANTON CA | USGS | 2.9 | 5.1 | 16 | 15 | 11 | 0.26 |
| 11176400 | ARROYO VALLE BL LANG CYN NR LIVERMORE CA | USGS | 5.2 | 16 | 43 | 51 | 38 | 0 |
| 11176500 | ARROYO VALLE NR LIVERMORE CA | USGS | 6 | 18 | 48 | 58 | 41 | 0.54 |
| 11176900 | ARROYO DE LA LAGUNA A VERONA CA | USGS | 12 | 36 | 117 | 114 | 85 | 0.81 |
| 11180500 | DRY C A UNION CITY CA | USGS | 0.52 | 1.5 | 3.4 | 3.9 | 2.9 | 0 |
| 11180825 | SAN LORENZO C AB DON CASTRO RES NR CASTRO V CA | USGS | 1.6 | 3.3 | 7.7 | 8.2 | 6 | 0 |
| 11180900 | CROW C NR HAYWARD CA | USGS | 1.1 | 2.6 | 5.9 | 6.3 | 4.8 | 0 |
| 11180960 | CULL C AB CULL C RES NR CASTRO VALLEY CA | USGS | 0.57 | 1.5 | 3.5 | 3.8 | 3 | 0 |
| 11181040 | SAN LORENZO C A SAN LORENZO CA | USGS | 4 | 9.5 | 24 | 23 | 18 | 0.18 |

## Table 10. San Joaquin Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | Source | November *(cfs)* | December *(cfs)* | January *(cfs)* | February *(cfs)* | March *(cfs)* | Groundwater Low Flow Threshold *(cfs)* |
|---|---|---|---|---|---|---|---|---|
| 11224000 | MF SAN JOAQUIN R NR MAMMOTH LAKES CA | USGS | 23 | 25 | 28 | 27 | 31 | 13 |
| 11251000 | SAN JOAQUIN R BL FRIANT CA | USGS | 518 | 711 | 711 | 711 | 768 | 307 |
| 11255575 | PANOCHE C A I-5 NR SILVER CREEK CA | USGS | 3.8 | 6.3 | 11 | 22 | 20 | 0 |
| 11264500 | MERCED R A HAPPY ISLES BRIDGE NR YOSEMITE CA | USGS | 75 | 108 | 132 | 135 | 145 | 22 |
| 11266500 | MERCED R A POHONO BRIDGE NR YOSEMITE CA | USGS | 138 | 225 | 259 | 259 | 259 | 41 |
| 11274500 | ORESTIMBA C NR NEWMAN CA | USGS | 1.1 | 6.2 | 18 | 26 | 16 | 0 |
| 11274630 | DEL PUERTO C NR PATTERSON CA | USGS | 0.7 | 2.7 | 6.8 | 10 | 7.6 | 0 |
| 11274790 | TUOLUMNE R A GRAND CYN OF TUOLUMNE AB HETCH HETCHY | USGS | 170 | 197 | 225 | 211 | 237 | 66 |
| 11276500 | TUOLUMNE R NR HETCH HETCHY CA | USGS | 272 | 362 | 406 | 409 | 409 | 94 |
| 11276900 | TUOLUMNE R BL EARLY INTAKE NR MATHER CA | USGS | 276 | 377 | 414 | 414 | 414 | 98 |
| 11284400 | BIG C AB WHITES GULCH NR GROVELAND CA | USGS | 3.7 | 5.1 | 9.4 | 11 | 9.5 | 0 |
| 11285500 | TUOLUMNE R A WARDS FERRY BR NR GROVELAND CA | USGS | 601 | 761 | 761 | 761 | 816 | 292 |
| 11289650 | TUOLUMNE R BL LAGRANGE DAM NR LAGRANGE CA | USGS | 653 | 767 | 767 | 793 | 950 | 340 |
| 11299600 | BLACK C NR COPPEROPOLIS CA | USGS | 2.3 | 4.4 | 11 | 11 | 8.8 | 0 |
| 11303000 | STANISLAUS R A RIPON CA | USGS | 481 | 504 | 504 | 526 | 639 | 222 |
| BAR | BEAR | US Army Corps of Engineers | 6 | 8.5 | 19 | 22 | 20 | 0.07 |

| Gage Number | Gage Name | Source | November *(cfs)* | December *(cfs)* | January *(cfs)* | February *(cfs)* | March *(cfs)* | Groundwater Low Flow Threshold *(cfs)* |
|---|---|---|---|---|---|---|---|---|
| BDV | BLACK RASCAL DIVERSION | US Army Corps of Engineers | 1.6 | 1.6 | 3.8 | 4.6 | 3.3 | 0.56 |
| BUR | BURNS CREEK DAM | US Army Corps of Engineers | 4.2 | 4.8 | 12 | 13 | 12 | 0.61 |
| DCM | DRY CREEK AT MODESTO AT CLAUS ROAD | DWR | 12 | 12 | 29 | 34 | 28 | 1.8 |
| FHL | FRESNO R ABV HENLEY LAKE | US Army Corps of Engineers | 46 | 58 | 103 | 120 | 133 | 2.1 |
| GDW | GOODWIN DAM | US Bureau of Reclamation | 479 | 543 | 543 | 543 | 653 | 224 |
| GRF | SAN JOAQUIN RIVER AT GRAVELLY FORD | US Bureau of Reclamation | 518 | 697 | 697 | 697 | 759 | 332 |
| LDC | LITTLE DRY CREEK (USBR) | US Bureau of Reclamation | 3.3 | 4.1 | 8.9 | 12 | 11 | 0.21 |
| MIL | FRIANT DAM (MILLERTON) | US Bureau of Reclamation | 516 | 720 | 720 | 720 | 764 | 307 |
| MSN | MERCED RIVER NEAR SNELLING | DWR | 344 | 392 | 460 | 531 | 620 | 146 |
| MST | MERCED RIVER NEAR STEVINSON | DWR, SCRO | 348 | 348 | 436 | 520 | 597 | 130 |
| NHG | NEW HOGAN LAKE | US Army Corps of Engineers | 146 | 200 | 411 | 400 | 346 | 4.4 |
| NML | NEW MELONES RESERVOIR | US Bureau of Reclamation | 481 | 550 | 550 | 550 | 619 | 218 |
| OBB | STANISLAUS R AT ORANGE BLOSSOM BRIDGE | DWR | 486 | 533 | 533 | 533 | 656 | 219 |
| TUM | TUOLUMNE MEADOWS | DWR | 24 | 24 | 28 | 25 | 32 | 12 |

## Table 11. Mono Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | Source | November *(cfs)* | December *(cfs)* | January *(cfs)* | February *(cfs)* | March *(cfs)* | Groundwater Low Flow Threshold *(cfs)* |
|---|---|---|---|---|---|---|---|---|
| 10251330 | AMARGOSA RV ABV CHINA RANCH WASH NR TECOPA, CA | USGS | 47 | 47 | 48 | 75 | 137 | 51 |
| 10251335 | WILLOW CK AT CHINA RANCH, CA | USGS | 2.1 | 2.1 | 2.1 | 3.3 | 4.6 | 2.9 |
| 10260500 | DEEP C NR HESPERIA CA | USGS | 33 | 36 | 59 | 75 | 91 | 7.8 |
| 10260950 | WF MOJAVE R AB MOJAVE R FORKS RES NR HESPERIA CA | USGS | 11 | 13 | 28 | 37 | 35 | 2.2 |
| 10261500 | MOJAVE R A LO NARROWS NR VICTORVILLE CA | USGS | 39 | 42 | 69 | 99 | 98 | 4.3 |
| 10262500 | MOJAVE R A BARSTOW CA | USGS | 63 | 104 | 164 | 150 | 144 | 7.7 |
| 10263500 | BIG ROCK C NR VALYERMO CA | USGS | 6.5 | 6.5 | 8.3 | 13 | 13 | 3.9 |
| 10265150 | HOT C A FLUME NR MAMMOTH LAKES CA | USGS | 22 | 25 | 27 | 27 | 27 | 22 |

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## Table 12. Kern Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | Source | November *(cfs)* | December *(cfs)* | January *(cfs)* | February *(cfs)* | March *(cfs)* | Groundwater Low Flow Threshold *(cfs)* |
|---|---|---|---|---|---|---|---|---|
| 11189500 | SF KERN R NR ONYX CA | USGS | 61 | 61 | 61 | 65 | 61 | 39 |
| 11200800 | DEER C NR FOUNTAIN SPRINGS CA | USGS | 6.1 | 8.3 | 11 | 17 | 18 | 0.7 |
| 11203580 | SF TULE R NR CHOLOLLO CAMPGROUND NR PORTERVILLE CA | USGS | 4.9 | 6.3 | 6.3 | 7.5 | 9.8 | 2.7 |
| 11204100 | SF TULE R NR RESERVATION BNDRY NR PORTERVILLE CA | USGS | 11 | 14 | 19 | 25 | 29 | 3.7 |
| 11206820 | MARBLE FORK KAWEAH R AB HORSE C NR LODGEPOLE CA | USGS | 4.7 | 6.1 | 6.9 | 6.8 | 8.3 | 2.3 |
| 11224500 | LOS GATOS C AB NUNEZ CYN NR COALINGA CA | USGS | 1 | 3 | 6.2 | 10 | 9.3 | 0 |
| 11253310 | CANTUA C NR CANTUA CREEK CA | USGS | 0.53 | 1.3 | 2.5 | 4 | 4.3 | 0 |
| ISB | ISABELLA DAM | US Army Corps of Engineers | 274 | 274 | 274 | 274 | 274 | 310 |
| KKV | KERN R AT KERNVILLE | US Army Corps of Engineers | 255 | 290 | 290 | 290 | 290 | 172 |
| KRT | KINGS R NR TRIMMER | US Army Corps of Engineers | 441 | 695 | 759 | 759 | 759 | 277 |
| LCV | DRY CREEK NEAR LEMONCOVE | US Army Corps of Engineers | 13 | 19 | 33 | 40 | 42 | 0.6 |
| PDR | MILL CREEK NEAR PIEDRA | US Army Corps of Engineers | 16 | 27 | 50 | 59 | 64 | 0.66 |
| PNF | PINE FLAT DAM | US Army Corps of Engineers | 475 | 715 | 715 | 715 | 715 | 329 |
| SCC | SUCCESS DAM | US Army Corps of Engineers | 51 | 61 | 75 | 104 | 111 | 16 |
| TRM | TERMINUS DAM | US Army Corps of Engineers | 149 | 177 | 177 | 197 | 226 | 89 |
| TRR | KAWEAH RIVER AT THREE RIVERS | US Army Corps of Engineers | 125 | 186 | 186 | 186 | 207 | 62 |

## Table 13. South Coast Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | Source | November *(cfs)* | December *(cfs)* | January *(cfs)* | February *(cfs)* | March *(cfs)* | Groundwater Low Flow Threshold *(cfs)* |
|---|---|---|---|---|---|---|---|---|
| 11014000 | JAMUL C NR JAMUL CA | USGS | 1.8 | 2.9 | 5.8 | 11 | 9.9 | 0 |
| 11015000 | SWEETWATER R NR DESCANSO CA | USGS | 5.1 | 6.3 | 11 | 16 | 19 | 0.55 |
| 11016200 | SWEETWATER R A DEHESA CA | USGS | 6.2 | 9.4 | 18 | 28 | 29 | 0.44 |
| 11023000 | SAN DIEGO R A FASHION VALLEY AT SAN DIEGO CA | USGS | 14 | 21 | 42 | 64 | 71 | 0.64 |
| 11023340 | LOS PENASQUITOS C NR POWAY CA | USGS | 1.5 | 1.8 | 5.1 | 6.5 | 6.4 | 0 |
| 11027000 | GUEJITO C NR SAN PASQUAL CA | USGS | 1.3 | 1.5 | 3.7 | 5.5 | 4.4 | 0 |
| 11028500 | SANTA MARIA C NR RAMONA CA | USGS | 3.2 | 3.2 | 7.4 | 11 | 9.6 | 0.39 |
| 11042000 | SAN LUIS REY R A OCEANSIDE CA | USGS | 17 | 30 | 70 | 96 | 89 | 1.2 |
| 11042400 | TEMECULA C NR AGUANGA CA | USGS | 7.4 | 7.7 | 16 | 24 | 21 | 0.46 |
| 11044300 | SANTA MARGARITA R A FPUD SUMP NR FALLBROOK CA | USGS | 24 | 24 | 55 | 78 | 71 | 3.2 |
| 11044350 | SANDIA C NR FALLBROOK CA | USGS | 0.28 | 0.76 | 2 | 3.4 | 2.2 | 0 |
| 11044800 | DE LUZ C NR DE LUZ CA | USGS | 0.52 | 1.3 | 3.1 | 5.8 | 4 | 0 |
| 11046000 | SANTA MARGARITA R A YSIDORA CA | USGS | 25 | 27 | 59 | 93 | 81 | 3 |
| 11046100 | LAS FLORES C NR OCEANSIDE CA | USGS | 0.66 | 1 | 2.6 | 3.9 | 2.9 | 0.19 |
| 11046300 | SAN MATEO C NR SAN CLEMENTE CA | USGS | 1.8 | 4.7 | 11 | 19 | 14 | 0 |
| 11046360 | CRISTIANITOS C AB SAN MATEO C NR SAN CLEMENTE CA | USGS | 0.88 | 1.4 | 3.6 | 6 | 4 | 0 |
| 11047300 | ARROYO TRABUCO A SAN JUAN CAPISTRANO CA | USGS | 1.4 | 2.9 | 7.8 | 10 | 9.6 | 0.1 |
| 11048200 | AGUA CHINON WASH NR | USGS | 0.05 | 0.15 | 0.41 | 0.64 | 0.45 | 0 |

| Gage Number | Gage Name | Source | November *(cfs)* | December *(cfs)* | January *(cfs)* | February *(cfs)* | March *(cfs)* | Groundwater Low Flow Threshold *(cfs)* |
|---|---|---|---|---|---|---|---|---|
| | IRVINE CA | | | | | | | |
| 11051499 | SANTA ANA R NR MENTONE (RIVER ONLY) CA | USGS | 39 | 39 | 41 | 58 | 69 | 18 |
| 11055800 | CITY C NR HIGHLAND CA | USGS | 3.6 | 4.4 | 8 | 11 | 11 | 1.3 |
| 11057500 | SAN TIMOTEO C NR LOMA LINDA CA | USGS | 6.5 | 7.3 | 14 | 24 | 20 | 0.6 |
| 11058500 | E TWIN C NR ARROWHEAD SPRINGS CA | USGS | 1.6 | 1.7 | 3.3 | 4.7 | 4.4 | 0.5 |
| 11062000 | LYTLE C NR FONTANA CA | USGS | 22 | 22 | 37 | 47 | 47 | 11 |
| 11063510 | CAJON C BL LONE PINE C NR KEENBROOK CA | USGS | 10 | 10 | 19 | 28 | 25 | 3.1 |
| 11063680 | DEVIL CYN C NR SAN BERNARDINO CA | USGS | 1.7 | 1.7 | 4.1 | 4.8 | 3.8 | 0.41 |
| 11069500 | SAN JACINTO R NR SAN JACINTO | USGS | 12 | 13 | 21 | 32 | 30 | 3.6 |
| 11070365 | SAN JACINTO R NR SUN CITY CA | USGS | 22 | 25 | 62 | 75 | 66 | 2.9 |
| 11073360 | CHINO C A SCHAEFER AVENUE NR CHINO CA | USGS | 8.9 | 11 | 23 | 29 | 27 | 3 |
| 11073495 | CUCAMONGA C NR MIRA LOMA CA | USGS | 9.5 | 10 | 26 | 37 | 25 | 0.81 |
| 11078000 | SANTA ANA R A SANTA ANA CA | USGS | 140 | 166 | 368 | 502 | 425 | 16 |
| 11098000 | ARROYO SECO NR PASADENA CA | USGS | 3.7 | 3.7 | 8.1 | 11 | 9.2 | 0.61 |
| 11109000 | SANTA CLARA R NR PIRU CA | USGS | 43 | 43 | 87 | 157 | 120 | 0.62 |
| 11109600 | PIRU CREEK ABOVE LAKE PIRU CA | USGS | 31 | 31 | 61 | 95 | 80 | 3.7 |
| 11109800 | PIRU CREEK BELOW SANTA FELICIA DAM CA | USGS | 34 | 34 | 67 | 113 | 90 | 2.6 |
| 11111500 | SESPE CREEK NEAR WHEELER SPRINGS CA | USGS | 4.9 | 7.6 | 16 | 28 | 22 | 0.26 |
| 11113000 | SESPE C NR FILLMORE | USGS | 34 | 40 | 91 | 150 | 104 | 1 |
| 11113500 | SANTA PAULA C NR SANTA PAULA | USGS | 5.1 | 6.1 | 14 | 23 | 16 | 0.27 |
| 11114495 | MATILIJA C NR RES NR | USGS | 8.4 | 12 | 27 | 43 | 30 | 1.8 |

| Gage Number | Gage Name | Source | November *(cfs)* | December *(cfs)* | January *(cfs)* | February *(cfs)* | March *(cfs)* | Groundwater Low Flow Threshold *(cfs)* |
|---|---|---|---|---|---|---|---|---|
| | MATILIJA HOT SPRINGS CA | | | | | | | |
| 11118500 | VENTURA R NR VENTURA | USGS | 24 | 34 | 90 | 135 | 83 | 0.83 |
| 11119500 | CARPINTERIA C NR CARPINTERIA CA | USGS | 2.3 | 3.2 | 8.7 | 13 | 7.6 | 0.13 |
| 11119750 | MISSION C NR MISSION ST NR SANTA BARBARA CA | USGS | 1.3 | 1.7 | 4.4 | 6.8 | 4.1 | 0.16 |
| 11120000 | ATASCADERO C NR GOLETA CA | USGS | 1.9 | 2.9 | 7.7 | 11 | 7.7 | 0.27 |
| 11120500 | SAN JOSE C NR GOLETA CA | USGS | 0.86 | 1.2 | 3.2 | 4.4 | 3 | 0 |
| 11123500 | SANTA YNEZ R BL LOS LAURLS CYN NR SNTA YNEZ CA | USGS | 34 | 55 | 124 | 213 | 147 | 2.2 |
| 11124500 | SANTA CRUZ C NR SANTA YNEZ CA | USGS | 5.1 | 11 | 22 | 36 | 32 | 0 |
| 11128250 | ALAMO PINTADO C NR SOLVANG CA | USGS | 2 | 3.3 | 8.5 | 12 | 9.1 | 0.18 |
| 11128500 | SANTA YNEZ R A SOLVANG CA | USGS | 56 | 95 | 239 | 341 | 255 | 3 |
| 11129800 | ZACA C NR BUELLTON CA | USGS | 1.9 | 3.6 | 9.6 | 13 | 10 | 0.19 |
| 11132500 | SALSIPUEDES C NR LOMPOC CA | USGS | 2.4 | 4.7 | 12 | 18 | 13 | 0.28 |
| 11134000 | SANTA YNEZ R A H ST NR LOMPOC CA | USGS | 62 | 110 | 281 | 368 | 312 | 9.6 |
| 11135800 | SAN ANTONIO C A LOS ALAMOS CA | USGS | 2 | 3.8 | 9.8 | 15 | 10 | 0.34 |
| 11136100 | SAN ANTONIO C NR CASMALIA CA | USGS | 5.2 | 8.5 | 23 | 37 | 26 | 0.88 |
| 11136600 | SANTA BARBARA CYN C NR VENTUCOPA CA | USGS | 2.5 | 3.2 | 5.8 | 10 | 8.8 | 0.27 |
| 11136800 | CUYAMA R BL BUCKHORN CYN NR SANTA MARIA CA | USGS | 22 | 33 | 59 | 98 | 92 | 3 |
| 11137900 | HUASNA R NR ARROYO GRANDE CA | USGS | 4.1 | 9.2 | 21 | 31 | 23 | 3.4 |
| 11138500 | SISQUOC R NR SISQUOC CA | USGS | 9.4 | 24 | 41 | 77 | 77 | 1.3 |
| 11140000 | SISQUOC R NR GAREY | USGS | 17 | 44 | 96 | 134 | 143 | 2.6 |
| 11140585 | SANTA MARIA R A SUEY | USGS | 44 | 81 | 148 | 266 | 241 | 7.6 |

| Gage Number | Gage Name | Source | November *(cfs)* | December *(cfs)* | January *(cfs)* | February *(cfs)* | March *(cfs)* | Groundwater Low Flow Threshold *(cfs)* |
|---|---|---|---|---|---|---|---|---|
| | CROSSING NR SANTA MARIA CA | | | | | | | |
| 11141050 | ORCUTT C NR ORCUTT CA | USGS | 0.84 | 1.2 | 2.8 | 5.1 | 3.2 | 0.21 |
| CCH | CACHUMA LAKE | US Bureau of Reclamation | 47 | 78 | 175 | 295 | 212 | 2.7 |
| CSK | CASTAIC CANYON CK Z3-2388 | DWR, Southern Field Division | 2.1 | 2.1 | 3.7 | 7.8 | 6.1 | 0 |
| ECC | ELIZABETH CANYON CK | DWR, Southern Field Division | 4.1 | 4.9 | 10 | 18 | 13 | 0.19 |
| FCK | FISH CANYON CK | DWR, Southern Field Division | 2.6 | 2.8 | 5.5 | 10 | 7.6 | 0.17 |
| PIR | PIRU CREEK BLW BUCK CR NR PYRAMID LAKE | DWR | 19 | 23 | 42 | 70 | 59 | 3.8 |

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## Table 14. South Eastern Desert Region Compliance Gage Numeric Instream Flow Requirements

| Gage Number | Gage Name | Source | November *(cfs)* | December *(cfs)* | January *(cfs)* | February *(cfs)* | March *(cfs)* | Groundwater Low Flow Threshold *(cfs)* |
|---|---|---|---|---|---|---|---|---|
| 10254050 | SALT C NR MECCA | USGS | 2.6 | 1.2 | 3 | 4.4 | 2.6 | 2 |
| 10256500 | SNOW C NR WHITE WATER CA | USGS | 1.8 | 1.8 | 2.4 | 3 | 3.2 | 1.5 |
| 10257600 | MISSION C NR DESERT HOT SPRINGS CA | USGS | 1.5 | 1.5 | 2.2 | 3.4 | 3.1 | 0.59 |
| 10258000 | TAHQUITZ C NR PALM SPRINGS CA | USGS | 1.7 | 2.4 | 3.2 | 3.7 | 4.6 | 0.22 |
| 10258500 | PALM CYN C NR PALM SPRINGS CA | USGS | 1.2 | 1.9 | 4.1 | 6.2 | 5.8 | 0 |
| 10259000 | ANDREAS C NR PALM SPRINGS CA | USGS | 1.1 | 1.2 | 1.7 | 1.9 | 1.9 | 0.85 |
| 10259100 | WHITEWATER R A RANCHO MIRAGE CA | USGS | 40 | 50 | 69 | 98 | 86 | 15 |
| 10259200 | DEEP C NR PALM DESERT CA | USGS | 0.57 | 0.71 | 1.5 | 2.2 | 1.8 | 0 |
| 10259300 | WHITEWATER R A INDIO CA | USGS | 47 | 71 | 83 | 116 | 95 | 20 |
| 9423350 | CARUTHERS C NR IVANPAH CA | USGS | 0.25 | 0.29 | 0.39 | 0.48 | 0.86 | 0 |

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# SECTION 5 – PLANNING AND REPORTING

## Technical Report Preparation Requirements for Cannabis General Order

Enrollees under the Cannabis General Order are required to submit technical reports to the appropriate Regional Water Board. The report(s) shall be transmitted in portable document format (PDF) to the e-mail address provided in the notice of receipt provided to the Cannabis General Order Enrollee as proof of enrollment. A description of each report and deadline for its submittal is provided below. The table below summarizes report submittal requirements, by tier and risk level, and Cannabis General Order Attachment D contains guidance regarding contents of required reports.

*Summary of Technical Reports Required by Tier and Risk Level*

| Tier | Risk Level | Technical Reports |
|---|---|---|
| Exempt or Conditionally Exempt | Not Applicable | Site Closure Report |
| Tier 1 | All | Site Management Plan |
| Tier 1 | Moderate | Site Erosion and Sediment Control Plan |
| Tier 1 | High | Disturbed Area Stabilization Plan |
| Tier 1 | All | Site Closure Report |
| Tier 2 | All | Site Management Plan |
| Tier 2 | Moderate | Site Erosion and Sediment Control Plan |
| Tier 2 | High | Disturbed Area Stabilization Plan |
| Tier 2 | All | Nitrogen Management Plan |
| Tier 2 | All | Site Closure Report |

Conditionally exempt cannabis cultivators that can no longer meet the requirements to qualify for conditional exemptions may have to enroll as a Tier 1 or Tier 2 site. If so, cannabis cultivators that no longer qualify for the conditionally exempt cannabis cultivation site status shall submit the technical and monitoring reports associated with their tier status.

Applicants or current cannabis cultivators that do not comply with the conditional exemptions (enrolled as Tier 1 or Tier 2) must comply with the riparian setback and slope limits and are classified as moderate or high risk, as described below:

- Moderate Risk: A cannabis cultivation site is classified as moderate risk if any part of the disturbed area is located on a slope greater than 30 percent and less than 50 percent. Such cannabis cultivators shall register as moderate risk and submit a *Site Erosion and Sediment Control Plan*.

- High Risk: A cannabis cultivation site is classified as high risk if any part of the disturbed area exists within the riparian setback limits. Such cannabis cultivators shall register as high risk, submit a *Disturbed Area Stabilization Plan*, and shall address the compliance issue as described below. Because such cannabis cultivators pose a higher risk to

water quality and will require a higher level of Regional Water Board oversight, they are subject to a higher application and annual fee. When the cannabis cultivation site is reconfigured to comply with the riparian setbacks, the cannabis cultivator can request the Regional Water Board reclassify the site to a lower risk level and allow a lower annual fee to be assessed.

### Site Management Plan

**Within 90 days** of the issuance of a notice of receipt, Tier 1 and Tier 2 cannabis cultivators shall submit and implement a *Site Management Plan* that describes how the cannabis cultivator is complying with the Requirements listed in Attachment A. The description shall describe how the Best Practicable Treatment or Control (BPTC) measures are implemented (e.g., for petroleum fuel storage, specify the specific product or means of compliance). Cannabis cultivators that are land owners of cannabis cultivation sites in North Coast Regional Water Board jurisdiction are required to submit and implement *Site Management Plans* that describe how the Requirements are implemented property-wide, including Requirements implemented to address discharges from legacy activities. The *Site Management Plan* may include a schedule to achieve compliance, but all work must be completed by **November 15 each year**. (The November 15 date does not relieve a cannabis cultivator from implementing the interim soil stabilization Requirements described in Attachment A of this Policy. Interim measures are those that are implemented immediately upon site development.) Attachment D of the Cannabis General Order provides guidance on the contents of the *Site Management Plan*.

### Site Erosion and Sediment Control Plan

**Within 90-days** of the issuance of a notice of receipt, Tier 1 or Tier 2 cannabis cultivators classified as moderate risk (any portion of the disturbed area is located on a slope greater than 30 percent and less than 50 percent), shall submit a *Site Erosion and Sediment Control Plan* that describes how the cannabis cultivator will implement the Requirements listed in Attachment A of this Policy. Because moderate risk sites are located on steeper slopes, additional Requirements, or a higher density of Requirements may be appropriate to achieve the goal of minimizing the discharge of sediment off-site.

Consistent with the Business and Professions Code, the Forest Practice Act, and other state laws, certain technical report preparation, design calculations, and report preparation must be prepared under the supervision of a California licensed civil engineer, professional forester, or professional geologist. When required, the *Site Erosion and Sediment Control Plan* shall be prepared by an individual qualified as described below:

i. A California Registered Professional Civil Engineer.
ii. A California Registered Professional Geologist.
iii. A California Certified Engineering Geologist.
iv. A California Registered Landscape Architect.
v. A Professional Hydrologist registered through the American Institute of Hydrology.
vi. A Certified Professional in Erosion and Sediment Control (CPESC)™ registered through Enviro Cert International, Inc.
vii. A Certified Professional in Storm Water Quality (CPSWQ)™ registered through Enviro Cert International, Inc.

viii. A Professional in Erosion and Sediment Control registered through the National Institute for Certification in Engineering Technologies (NICET).

Attachment D of the Cannabis General Order, provides guidance on the contents of the *Site Erosion and Sediment Control Plan*.

### Disturbed Area Stabilization Plan

**Within 90-days** of the issuance of a notice of receipt, Tier 1 or Tier 2 cannabis cultivators classified as high risk (any portion of the disturbed area exists within the riparian setbacks Requirements specified in Section 1 of this Policy except as authorized by a CDFW Lake or Streambed Alteration permit), shall submit a *Disturbed Area Stabilization Plan* that describes how compliance with the riparian setbacks will be achieved.

Areas disturbed upon initial site development that are located within the riparian setback specified in the Policy are considered disturbed area and will place the Cannabis Cultivation Site under the high risk level. Roads and watercourse crossings designed, constructed, and maintained consistent with the Road Handbook are not considered disturbed areas.

Consistent with the Business and Professions Code, the Forest Practice Act, and other state laws, certain technical report preparation, design calculations, and report preparation must be prepared under the supervision of a California licensed civil engineer, professional forester, or professional geologist.

When required, the *Disturbed Area Stabilization Plan* shall be prepared by an individual qualified as described below:

i. A California Registered Professional Civil Engineer.

ii. A California Registered Professional Geologist.

iii. A California Certified Engineering Geologist.

iv. A California Registered Landscape Architect.

v. A Professional Hydrologist registered through the American Institute of Hydrology.

vi. A Certified Professional in Erosion and Sediment Control (CPESC)™ registered through Enviro Cert International, Inc.

vii. A Certified Professional in Storm Water Quality (CPSWQ)™ registered through Enviro Cert International, Inc.

viii. A Professional in Erosion and Sediment Control registered through the National Institute for Certification in Engineering Technologies (NICET).

If the cannabis cultivator cannot achieve compliance by the next November 15 date (stabilization work will continue past November 15 or will continue the following year), the Cannabis Cultivator must include a time schedule and scope of work for approval by the Regional Water Board Executive Officer and use in preparing an enforcement order. Attachment D of the Cannabis General Order provides guidance on the contents of the *Disturbed Area Stabilization Plan*.

### Nitrogen Management Plan

**Within 90 days** of the issuance of a notice of receipt, all Tier 2 cannabis cultivators with a cannabis cultivation area, or aggregate of cultivation areas, greater than one acre shall submit a *Nitrogen Management Plan* (NMP) for the cannabis cultivation site. The NMP shall calculate all

the nitrogen applied to the cannabis cultivation area (dissolved in irrigation water, originating in soil amendments, and applied fertilizers) and describe procedures to limit excessive fertilizer application. Attachment D of the Cannabis General Order provides guidance on the contents of a *Nitrogen Management Plan*.

### Site Closure Report

**At least 90 days prior to ending cannabis cultivation** at a site, a registered (conditionally exempt) or enrolled (Tier 1 or Tier 2) cannabis cultivator shall submit a *Site Closure Report* that describes how the site will be decommissioned to prevent sediment and turbidity discharges that degrade water quality. If construction activities are proposed in the *Site Closure Report*, a project implementation schedule shall be included in the report. Attachment D of the Cannabis General Order provides guidance on the contents of the *Site Closure Report*. A Notice of Termination must be submitted (Attachment C of the Cannabis General Order) with the *Site Closure Report*.

Cannabis cultivators with cultivation activities on slopes greater than 30 percent and less than 50 percent shall submit a *Site Erosion and Sediment Control Plan*; cannabis cultivators with any portion of their disturbed area within the riparian setbacks must submit a *Disturbed Area Stabilization Plan*. When required, the reports shall be prepared by an individual qualified as described below:

i. A California Registered Professional Civil Engineer.

ii. A California Registered Professional Geologist.

iii. A California Certified Engineering Geologist.

iv. A California Registered Landscape Architect.

v. A Professional Hydrologist registered through the American Institute of Hydrology.

vi. A Certified Professional in Erosion and Sediment Control (CPESC)™ registered through Enviro Cert International, Inc.

vii. A Certified Professional in Storm Water Quality (CPSWQ)™ registered through Enviro Cert International, Inc.

viii. A Professional in Erosion and Sediment Control registered through the National Institute for Certification in Engineering Technologies (NICET).

# SECTION 6 – USEFUL GUIDANCE DOCUMENTS

1. Handbook for Forest, Ranch, & Rural Roads: A Guide for Planning, Designing, Constructing, Reconstructing, Upgrading, Maintaining, and Closing Wildland Roads
   http://www.pacificwatershed.com/sites/default/files/RoadsEnglishBOOKapril2015b.pdf

2. A Water Quality and Stream Habitat Protection Manual for County Road Maintenance in Northwestern California Watersheds
   http://www.5counties.org/roadmanual.htm

3. Construction Site BMP Fact Sheets
   http://www.dot.ca.gov/hq/construc/stormwater/factsheets.htm

4. United States Environmental Protection Agency Riparian/Forested Buffer
   https://nepis.epa.gov/Exe/ZyPDF.cgi/2000W45Y.PDF?Dockey=2000W45Y.PDF

5. Creating Effective Local Riparian Buffer Ordinances
   http://www.ohioenvironmentallawblog.com/uploads/file/UGA%20riparian_buffer_guidebook.pdf

6. How to Install Residential Scale Best Management Practices (BMPs) in the Lake Tahoe Basin
   http://www.tahoebmp.org/Documents/Contractors%20BMP%20Manual.pdf

7. Spoil Pile BMPs
   http://michigan.gov/documents/deq/deq-wb-nps-sp_250905_7.pdf

8. Sanctuary Forest Water Storage Guide
   https://greywateraction.org/wp-content/uploads/2014/11/SantuaryForrest_Water_Storage_Guide.pdf

9. Natural Resources Conservation Service-USDA, “Ponds – Planning, Design, Construction”, Agriculture Handbook
   http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_030362.pdf

10. Division of Safety of Dams Size Requirements
    http://www.water.ca.gov/damsafety/jurischart/

11. Water Tanks: Guidelines for Installation and Use
    http://www.waterandseptictanks.com/Portals/0/files/GUIDELINES-FOR-INSTALLATION-OF-WATER-TANKS-_rev1_-03-20-08-_2_.pdf

12. Guidelines for Use and Installation of Above Ground Water Tanks
    http://www.waterandseptictanks.com/Portals/0/files/GUIDELINES-FOR-INSTALLATION-OF-WATER-TANKS-_rev1_-03-20-08-_2_.pdf

13. BEST MANAGEMENT PRACTICES (BMP’s) University of California Cooperative Extension
    http://www.waterboards.ca.gov/sandiego/water_issues/programs/wine_country/docs/updates081910/ucce_bmps.pdf

14. California Storm Water Quality Association, Section 4: Source Control BMPs
https://www.casqa.org/sites/default/files/BMPHandbooks/sd-12.pdf

15. CA DOT Solid Waste Management Plan
http://www.dot.ca.gov/hq/construc/stormwater/WM-05.pdf

16. State Water Resources Control Board Onsite Wastewater Treatment System (OWTS) policy
http://www.waterboards.ca.gov/water_issues/programs/owts/docs/owts_policy.pdf

17. California Storm Water Quality Association
Section 4: Source Control BMPs
https://www.casqa.org/sites/default/files/BMPHandbooks/sd-32.pdf

18. California Riparian Habitat Restoration Handbook
http://www.conservation.ca.gov/dlrp/watershedportal/InformationResources/Documents/Restoration_Handbook_Final_Dec09.pdf

19. The Practical Streambank Bioengineering Guide
http://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/idpmcpu116.pdf

DRAFT

State Water Resources Control Board

# DRAFT
# Cannabis Cultivation Policy

# ATTACHMENT B

## Glossary of Terms

**July 7, 2017**

**Agronomic rate —** The rate of application of irrigation water and nutrients to plants necessary to satisfy the plants' evapotranspiration requirements and growth needs and minimize the movement of nutrients below the plants root zone. The agronomic rate considers allowances for supplemental water (e.g., effective precipitation), irrigation distribution uniformity, nutrients present in irrigation water, leaching requirement, and plant available nitrogen.

**Anadromy (adj. form: anadromous) —** Migration of fish, as adults or subadults, from salt water to fresh.

**Aquatic benthic macroinvertebrate —** Aquatic animals without backbones that can be seen by the unaided eye and typically dwell on rocks, logs, sediment or plants. Include, but are not limited to, insects, mollusks, amphipods, and aquatic worms. Common aquatic insects include, but are not limited to, mayflies, stoneflies, caddisflies, true flies, water beetles, dragonflies, and damselflies.

**Aquatic non-fish vertebrate —** Include, but are not limited to, aquatic mammals, such as beavers, river otters, and muskrats; amphibians, such as frogs and salamanders; and reptiles, such as snakes and turtles.

**Average, also called mean —** The sum of measured values divided by the number of samples.

**California Native American tribe —** As defined in section 21073 of the Public Resources Code: A Native American tribe located in California that is on the contact list maintained by the Native American Heritage Commission for the purposes of Chapter 905 of the Statutes of 2004.

**Cannabis cultivation —** Any activity involving or necessary for the planting, growing, pruning, harvesting, drying, curing, or trimming of cannabis. This term includes, but is not limited to (1) water diversions for cannabis cultivation, and (2) activities that prepare or develop a cannabis cultivation site or otherwise support cannabis cultivation and which discharge or threaten to discharge waste to waters of the state.

**Cannabis cultivation area —** Is defined by the following:

a. For in-ground plants, the cultivation area is defined by the perimeter of the area planted, including any immediately adjacent surrounding access pathways.

b. For plants grown outdoors in containers (e.g., pots, grow bags, etc.) the cultivation area is defined by a perimeter that contains the containers, including any surrounding immediately adjacent access pathways. The area is not limited to the sum of the area of each individual container.

c. For plants grown indoors, but that do not qualify for the conditional exemption, the cultivation area is defined by the entire area contained in the structure where cultivation occurs, excluding any area used solely for activities that are not

cultivation activities (e.g., office space). Areas used for storage of materials, equipment, or items related to cultivation shall be included in the area calculation.

**Cannabis cultivation site —** A location where cannabis is planted, grown, pruned, harvested, dried, cured, graded, or trimmed, or where any combination of these activities occurs.

**Cannabis cultivator —** Any person or entity engaged in cultivating cannabis that diverts water (i.e. diverter) or discharges or threatens to discharge waste (i.e. discharger). The term includes business entities, employees, and contractors; landowners; cultivators; lessees; and tenants of private land where cannabis is grown and of lands that are modified or maintained to facilitate cannabis cultivation.

**Construction Storm Water Program** — Refers to implementation of Water Quality Order 2009-0009-DWQ and National Pollutant Discharge Elimination System No. CAS000002, as amended by Order No. 2010-0014-DWQ, Order No. 2012-0006-DWQ, and amendments thereto. Cannabis cultivators whose activities disturb one or more acres of soil or whose projects disturb less than one acre but are part of a larger common pan of develop that in total disturbs one or more acres may need to obtain coverage under the Construction Storm Water Program. Construction activities covered under the Construction Storm Water Program may include clearing, grading, and disturbances to the ground such as stockpiling, or excavation, but does not include agricultural stormwater discharges, silviculture, road construction and maintenance from which there is natural runoff, regular maintenance activities performed to restore the original line, grade, or capacity of a facility, or other non-point source discharges.

**Canopy — For streams:** The overhead branches and leaves of streamside woody vegetation. **For cannabis:** The area of a cultivation site that contains mature plants at any point in time.

**Channel maintenance flows —** Peak streamflows needed for maintaining stream channel geometry, gravel and woody debris movement, and the natural flow variability needed for protection of various habitat needs of anadromous salmonids.

**Channel thalweg —** The line connecting the lowest or deepest points along a stream channel.

**Cesspool —** An excavation in the ground receiving domestic wastewater, designed to retain the organic matter and solids, while allowing the liquids to seep into the soil. Cesspools do not have a septic tank providing primary treatment of wastewater prior to discharge. A cesspool is distinguished from an outhouse, pit-privy, or pit-toilet because liquid wastewater (e.g., from toilet flushing, shower, or kitchen sources) is discharged to a cesspool.

**Coarse sediment —** Particle sizes of ¼ inch or larger, including particles derived from debris flows, that either contribute directly to spawning gravel, or that reduce to a

smaller usable size, or influence stream channel morphology by forming a **substrate** framework.

**Day —** Is the mean solar day of 24 hours beginning at mean midnight. All references to day in the Policy are calendar days.

**Deep percolation —** Infiltration of water through soil when excess irrigation water is applied and percolates below the plant root zone.

**Discharger —** Any person or entity engaged in developing land for cannabis cultivation or to provide access to adjacent properties for cultivation activities and/or any person or entity engaged in the legal cultivation of cannabis that discharges or threatens to discharge waste to waters of the state.

**Diverter —** Any person or entity that diverts water from waters of the state, including surface waterbodies and groundwater.

**Diversion —** Taking water, by gravity or pumping, from a surface stream or groundwater, into a canal, pipeline, or other conduit, including impoundment of water in a reservoir.

**Dredged material —** Material that is excavated or dredged from a water body. This term is further defined at 33 Code of Federal Regulations Part 323.2(c).

**Earthwork and Paving Contractor —** A contractor holding a California Department of Consumer Affairs issued C-12 Earthwork and Paving License. These contractors are licensed to dig, move, and place material forming the surface of the earth, other than water, in such a manner that a cut, fill, excavation, grade, trench, backfill, or tunnel (if incidental thereto) can be executed, including the use of explosives for these purposes. This classification includes the mixing, fabricating and placing of paving and any other surfacing materials. See California Code of Regulations Title 16, Division 8, Article 3. Classifications.

**Ecological functions and values (of riparian habitat) —** Functions are onsite and offsite natural riparian habitat processes. Values are the importance of the riparian habitat to society in terms of health and safety; historical or cultural significance; ecological characteristics, education, research, or scientific significance; aesthetic significance; economic significance; or other reasons.

**Ephemeral watercourse —** See *Watercourse* definitions.

**Exceedance probability —** The probability that a specified streamflow magnitude will be exceeded. The exceedance probability is equal to one divided by the recurrence interval.

**Face value —**The maximum amount of water that is authorized to be diverted under a water right permit, license, small domestic/livestock stockpond certificate, or statement of diversion.

**Face value demand —** The sum of the face values of all water rights above an identified location in a stream channel.

**Fill material —** Material placed into a water body that has the effect of either replacing any portion of the water with dry land or changing the bottom elevation of the water body. This term is further defined at 33 Code of Federal Regulations Part 323.2(e).

**Fish –** Wild fish, mollusks, crustaceans, invertebrates, or amphibians, including any part, spawn, or ova thereof (California Fish and Code section 45). For the purposes of stream classification, fish are defined as finfish.

**Flow frequency analysis —** A statistical technique used by hydrologists for estimating the average rate at which floods, droughts, storms, stores, rainfall events, etc., of a specified magnitude recur.

**Flow path —** The direction water flows along its stream course from the point of diversion to the Pacific Ocean. If a project will have a *de minimis* effect on flows in a flow-regulated mainstem river, then the flow path may terminate at the flow-regulated mainstem river.

**Flow-regulated mainstem river —** A river or stream in which scheduled releases from storage are made to meet minimum instream flow requirements established by a State Water Board Order or Decision.

**Forbearance Period —**The calendar days or otherwise defined conditions during which no water may be diverted. See also *Surface Water Diversion Period*.

**Habitat suitability criteria —** Structural and hydraulic characteristics of a stream that are indicators of habitat suitability for different fish species and life stages.

**Hazardous material —** Any item or agent (biological, chemical, radiological, and/or physical), which has the potential to cause harm to humans, animals, or the environment, either by itself or through interaction with other factors.

**Heavy equipment —** Large pieces of machinery or vehicles, especially those used in the building and construction industry (e.g., bulldozers, excavators, backhoes, bobcats, tractors, etc.).

**Hydraulic conductivity —** The capacity of a porous medium to transmit water. The rate at which fluid can move through a permeable medium depends on the properties of the fluid (viscosity and specific weight) and properties of the medium (intrinsic

permeability). Hydraulic conductivity is generally measured in units of feet/day or centimeters/second.

**Hydrograph —** A graph showing for the rate of flow versus time past a specific point in a river, or other channel or conduit carrying flow; generally measured in units of cubic meters or cubic feet/second.

**Hyporheic —** Denoting an area or ecosystem beneath the bed of a river or stream that is saturated with water and that supports invertebrate fauna which play a role in the larger ecosystem.

**Impervious surface —** A permanent improvement affixed to the earth which does not allow water or liquid to pass through it or permeate into the earth. Impervious surface includes a house or primary structure, driveway, parking lot, walkways, sidewalks, patios, decks, green houses, accessory structure(s), and other hardscape.

**Instream cover —** Areas of shelter in a stream channel that provide aquatic organisms protection from predators or competitors and/or a place in which to rest and conserve energy due to a reduction in the force of the current.

**Integrated Pest Management (IPM) —** An ecosystem-based strategy that focuses on long-term prevention of pests or their damage through a combination of techniques such as biological control, habitat manipulation, modification of cultural practices, and use of resistant varieties. Pesticides are used only after monitoring indicates they are needed according to established guidelines, and treatments are made with the goal of removing only the target organism. Pest control materials are selected and applied in a manner that minimizes risks to human health, beneficial and non-target organisms, and the environment.

**Intermittent watercourse —** see *Watercourse* definitions.

**Invasive Species —** Organisms (plants, animals, or microbes) that are not native to an environment and, once introduced; establish, quickly reproduce and spread, and cause harm to the environment, economy, or human health. For guidance on decontamination methods and species of concern, see CDFW's invasive species webpage: https://www.wildlife.ca.gov/Conservation/Invasives.

**Lake and Streambed Alteration Agreement —** Fish and Game Code section 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following:

- Substantially divert or obstruct the natural flow of any river, stream or lake;
- Substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or
- Deposit debris, waste or other materials that could pass into any river, stream or lake.

Any river, stream or lake" includes those that are episodic (they are dry for periods of time) as well as those that are perennial (they flow year round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water.

**Land Disturbance —** Land areas where natural conditions have been modified in a way that may result in an increase in turbidity in water discharged from the site. Disturbed land includes areas where natural plant growth has been removed whether by physical, animal, or chemical means, or natural grade has been modified for any purpose. Land disturbance includes all activities whatsoever associated with developing or modifying land for cannabis cultivation related activities or access. Land disturbance activities include, but are not limited to, construction of roads, buildings, or water storage areas; excavation; grading; and site clearing. Disturbed land includes cultivation areas, storage areas where soil or soil amendments (e.g., potting soil, compost, or biosolids) are located.

**Land Owner —** Any person or entity who owns, in whole or in part, the parcel of land on which cannabis cultivation is occurring or will occur. A Landowner need not be a Cannabis Cultivator.

**Laterals (in the context of irrigation water lines) —** Pipes between the control valve and the sprinkler heads.

**Legacy Conditions —** Sites of historic activity, which may not be related to cannabis cultivation activity, that may discharge sediment or other waste constituents to waters of the state. Legacy conditions are caused or affected by human activity. Implementation of corrective actions can reduce or eliminate the waste discharge.

**Licensed Timber Operators (LTOs) —** Persons who have been licensed under the Forest Practice Act law and are authorized to conduct forest tree cutting and removal operations.

**Local Environmental Health Department —** To identify ones local environmental health department enter your address information into the following website directory: http://cersapps.calepa.ca.gov/public/directory.

**Low Flow Threshold —**The minimum flow in a stream that is considered supportive of the aquatic ecosystem, including water quality and salmonid rearing and migration. The low flow threshold is determined using defined scientific methodology that equates the aquatic ecosystem health with the flow in the stream.

**Mainlines (in the context of irrigation water lines) —** Pipes that run from the water source to the control valves.

**Maximum cumulative diversion rate —** The sum of the rates of diversion of all diversions upstream of a specific location in the watershed.

**Mean, also called average —** The sum of measured values divided by the number of samples.

**Minimum bypass flow —** In the context of a diversion Requirement, it is the minimum instantaneous flow rate of water that must be moving past the point of diversion before water may be diverted.

**Natural monthly streamflows —** Modeled monthly streamflows that are unaffected by land use or water management

**Offset well —** A well drilled at an offset distance from a river or stream that is considered pumping from the underflow of the river or stream

**Permeability —**The property of a porous rock or soil for transmitting a fluid. It measures the relative ease of flow under unequal pressure. See *hydraulic conductivity*.

**Period of record —** The time period for which flow measurements have been recorded. The period of record may be continuous or interrupted by intervals during which no data were collected.

**Perennial stream —** See *Watercourse* definitions.

**Pesticide —** Pesticide is defined as follows:
- Per California Code of Regulations Title 3. Division 6. Section 6000:
  (a) Any substance or mixture of substances that is a pesticide as defined in the Food and Agricultural Code and includes mixtures and dilutions of pesticides;
  (b) As the term is used in Section 12995 of the California Food and Agricultural Code, includes any substance or product that the user intends to be used for the pesticidal poison purposes specified in Sections 12753 and 12758 of the Food and Agricultural Code.
- Per California Food and Agricultural Code section 12753(b), the term "Pesticide" includes any of the following: Any substance, or mixture of substances which is intended to be used for defoliating plants, regulating plant growth, or for preventing, destroying, repelling, or mitigating any pest, as defined in Section 12754.5, which may infest or be detrimental to vegetation, man, animals, or households, or be present in any agricultural or nonagricultural environment whatsoever.
- In laymen's terms: "pesticide" includes: rodenticides, herbicides, insecticides, fungicides, and disinfectants.

**Point of Diversion —** A location at which water is withdrawn from a surface waterbody.

**Pool —** A deeper area of water in a stream channel; usually quiet and often with no visible flow.

**Professional Archeologist —** An Archeologist that is qualified by the Secretary of Interior, Register of Professional Archaeologists, or Society for California Archaeology.

**Qualified Biologist —** An individual who possesses at a minimum a bachelor's or advanced degree, from an accredited university, with a major in a biological, physical, natural resources science, or a closely related scientific discipline, at least two years of field experience in the biology and natural history of local plant, fish, and wildlife resources present at the project site, and knowledgeable of state and federal laws regarding the protection of sensitive species.

**Qualified Professional —** Means:

1) Individuals licensed in California under the Professional Engineer Act (e.g., Professional Engineer), Geologist and Geophysicist Act (e.g., Professional Geologist and Certified Engineering Geologist), and Professional Land Surveyors' Act (e.g., Professional Land Surveyor)[1],
2) California Registered Professional Forester (RPF), and
3) Qualified Storm Water Pollution Prevention Plan (SWPPP) Practitioner.

**Range of anadromy —** Length of stream reach between the Pacific Ocean and the upper limit of anadromy (see definition of *Anadromy*), where migration, spawning and rearing of salmonids occur.

**Recurrence interval —** The average time between occurrences of streamflows of a given or greater magnitude, sometimes referred to as the return period. The recurrence interval is equal to one divided by the exceedance probability**.**

**Redd —** Spawning areas or nests made by a salmon or trout

**Residual pool depth —** The difference between the depth of a pool at its deepest point and at its outlet.

**Restricted materials —** Restricted materials are defined in California Code of Regulations Title 3 section 6400. Restricted materials include all "restricted use pesticides", as defined in the Federal Insecticide, Fungicide, and Rodenticide Act section 3(d)(1)(C). Information on restricted materials is available at: http://www.cdpr.ca.gov/docs/enforce/compend/vol_3/chap2.pdf

**Riffle —** A shallow area in which water flows rapidly over a rocky or gravelly streambed.

**Riffle crest —** The highest point along the channel thalweg at a riffle.

**Riparian habitat —** Vegetation growing close to a stream, lake, swamp, or spring that is generally critical for wildlife cover, fish food organisms, stream nutrients and large organic debris, and for streambank stability.

[1] See Business and Professions Code sections 6700-6799, 7800-7887, and 8700-8805, respectively.

**Salmonid —** Of, belonging to, or characteristic of the family Salmonidae, which includes salmon, trout, and whitefish.

**Seep —** See *Spring or seep.*

**Surface Water Diversion Period —** The calendar period during which water may be diverted. See also *Forbearance Period*.

**Sheet flow length —** The length that shallow, low velocity flow travels across a site.

**Site Mitigation —** efforts to mitigate the impacts of Legacy Conditions or cannabis cultivation-related activities on the Cannabis Cultivation Site or its surroundings.

**Site Remediation —** efforts to restore the Cannabis Cultivation Site and its surroundings to its condition before cannabis cultivation activities began, or to restore the cultivation site and its surroundings to its natural condition.

**Slope —** shall be determined across the natural topography (preconstruction) of the disturbed land. Measure the highest and lowest elevations of the disturbed land, then measure the horizontal distance separating the highest and lowest elevations. Determine the slope using the formula below. (Multiple the ratio by 100 to find the percent value.) There may be more than one slope value if the low elevation has higher elevations in different directions. The highest slope value calculated (highest percentage numerically) is the value to be reported.

$$\boldsymbol{Slope} = \frac{\boldsymbol{elevation\ difference}}{\boldsymbol{horizontal\ distance}}\ \boldsymbol{x\ 100}$$

Slope – Value of slope expressed as a percentage.
Elevation difference – Report in feet to an accuracy of one inch or one tenth of a foot.

Horizontal distance – Report in feet to an accuracy of one inch or one tenth of a foot.

**Soil Materials —** Include soil, aggregate (rock, sand, or soil), potting soil, compost, manure, or biosolid.

**Spring or Seep —** Place where water flows out of the ground. A spring or seep may flow the whole year or part of the year. Surface water flow Requirements apply to both natural springs and seeps and springs and seeps that are modified to improve productions such as, installing piping and spring boxes/wells.

**Stabilized Areas —** Consist of areas previously disturbed that have been successfully reclaimed to minimize the increase in sediment or turbidity in water discharged from the site. Areas where vehicles may travel or be parked are not considered stabilized.

**Substrate —**The material (e.g., sand, gravel, cobbles, boulders, bedrock, and combinations thereof) that forms the bed of a stream.

**Thalweg —** See *channel thalweg***.**

**Timberland —** As defined in Public Resources Code section 4526: Land, other than land owned by the federal government and land designated by the Board of Forestry as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species, on a district basis, are defined in California Code of Regulations, title 14, section 895.1.

**Tribal lands —** Lands recognized as "Indian country" within the meaning of title 18, United States Code, section 1151.

**Turbidity —** A measure of water clarity: how much the material suspended in water decreases the passage of light through the water. Suspended materials include soil particles (clay, silt, and sand), algae, plankton, and other substances. The turbidity test is reported in Nephelometric Turbidity Units (NTUs).

**Upper limit of anadromy —** The upstream end of the range of anadromous fish that currently are or have been historically present year-round or seasonally, whichever extends the furthest upstream.

**Waterbody —** Any significant accumulation of water, such as: lakes, ponds, rivers, streams, creeks, springs, seeps, artesian wells, wetlands, and canals.

**Watercourse —** A natural or artificial channel through which water flows.

- Perennial watercourse (Class I):
    1. In the absence of diversions, water is flowing for more than nine months during a typical year,
    2. Fish always or seasonally present onsite includes habitat to sustain fish migration and spawning, and /or
    3. Spring or seep: a place where water flows out of the ground. A spring or seep may flow the whole year or part of the year.
- Intermittent watercourse (Class II):
    1. In the absence of diversions, water is flowing for three to nine months during a typical year, or
    2. Water is flowing less than three months during a typical year and the stream supports riparian vegetation.
- Ephemeral watercourse (Class III): In the absence of diversion, water is flowing less than three months during a typical year and the stream does not support riparian vegetation or aquatic life. Ephemeral watercourses typically have water

flowing for a short duration after precipitation events or snowmelt and show evidence of being capable of sediment transport. Ephemeral watercourses include channels, swales, gullies, rills, and any other drainage features that channelize and transport runoff.

- Other watercourses (Class IV): Class IV watercourses do not support native aquatic species and are man-made, provide established domestic, agricultural, hydroelectric supply, or other beneficial use.

**Watershed —** The land area that drains into a stream. An area of land that contributes runoff to one specific delivery point; large watersheds may be composed of several smaller "subsheds", each of which contributes runoff to different locations that ultimately combine at a common delivery point. Often considered synonymous with a drainage basin or catchment. Watershed (drainage basin) boundaries follow topographic highs. The term watershed is also defined as the divide separating one drainage basin from another.

**Watershed drainage area —** The land area that comprises a watershed.

**Water hauler —** Any person who hauls water in bulk by any means of transportation.

**Waters of the State —** Any surface water or groundwater, including saline waters, within the boundaries of the state (Water Code section 13050(e)). This term includes all waters within the state's boundaries, whether private or public, including waters in both natural and artificial channels. Waters of the state includes waters of the United States.

**Weed free mulch —** A certified weed-free protective covering (e.g. bark chips, straw, etc.) placed on the ground around plants to suppress weed growth, retain soil moisture, or prevent freezing of roots.

**Wetland —** An area is wetland if, under normal circumstances:

1. the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both;
2. the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and
3. the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

**Winter low flow —** A lower magnitude streamflow threshold that inundates riffles and is important to managing several steelhead and salmon life history needs in California streams by: (1) protecting benthic macroinvertebrate habitat in riffles to foster stream productivity, (2) preventing redd desiccation and maintaining hyphoreic subsurface flows, (3) sustaining juvenile salmonid winter rearing habitat, and (4) not impeding smolt out-migration.

**Winter Period —** Calendar dates from November 15 to April 1, except as noted under special County Rules California Code of Regulations, title 14, sections 925.1, 926.18, 927.1, and 965.5.

DRAFT