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Site Management Plan for:
WDID: 1B161435CHUM
APN: 208-341-011

Prepared for:
State Water Resources Control Board (SWRCB)
North Coast Regional Water Quality Control Board (NCRWQCB)

Prepared by:
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Date of Completion:
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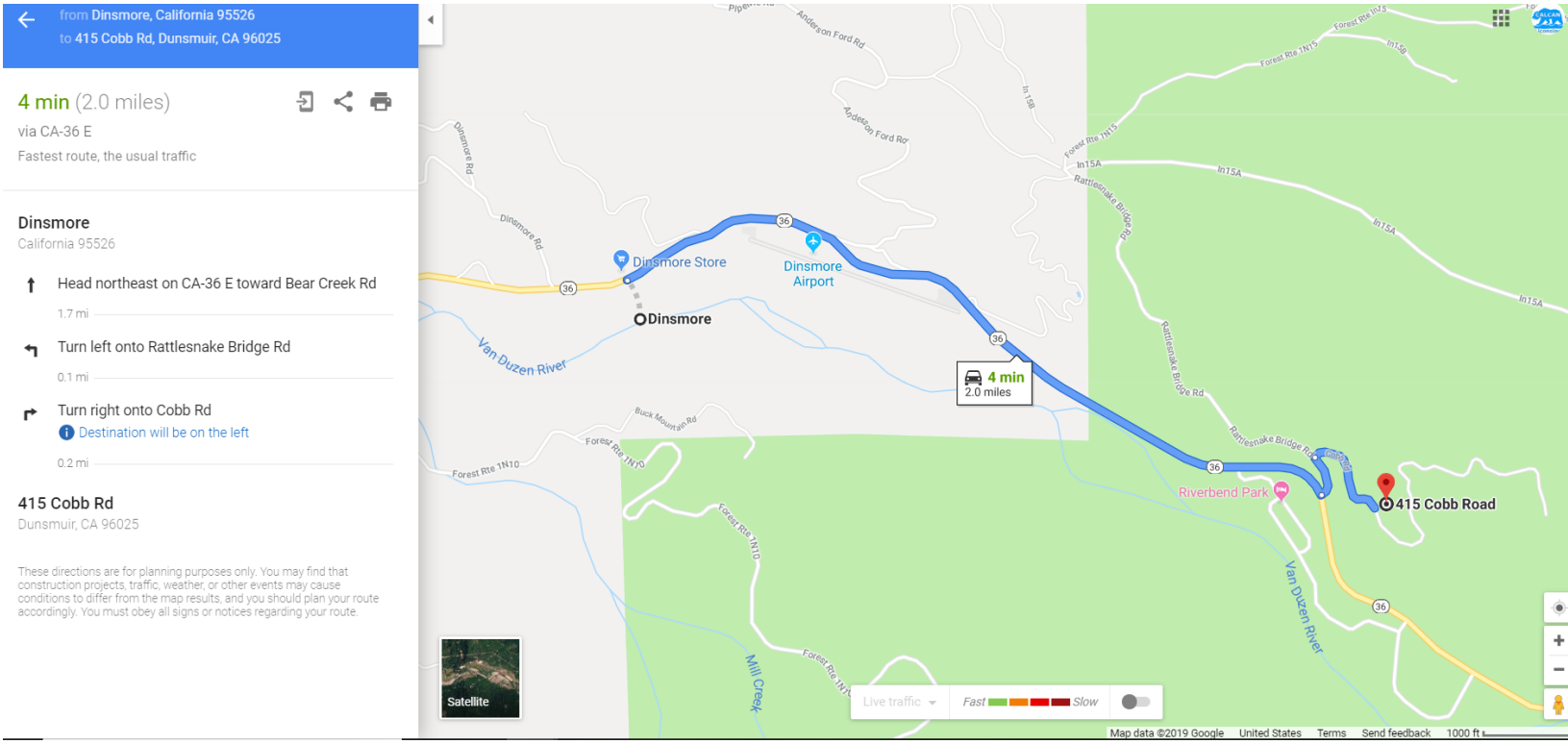
1. Introduction

This Site Management Plan (SMP) as required by the State's General Order[1], is for Lizard Ranch Farms LLC cannabis cultivation site located in the Dinsmore area, street address 415 Cobb Road, in Humboldt County. The site is located within the watershed HUC 12-180101050703. The purpose of this order is to provide a regulatory structure for cannabis cultivation that reduces contributions to existing water quality issues and prevents additional adverse impacts to water resources throughout California. The purpose of the SMP is to identify conditions present on a parcel that may pose a threat to water quality and resources and establish a plan to meet or surpass requirements set forth in the order, as well as to describe how the cultivator is implementing the best practical treatment or control (BPTC) measures listed in Attachment A of the Cannabis General Order. Refer to Attachment D of the General Order for further technical report guidance.

Margro Advisors has made an initial assessment of this parcel through field work as well as through a variety of county, state, and private websites (e.g. USDA web soil survey, Google Earth, and Humboldt County Web GIS). The parcel boundaries are approximate and obtained from Humboldt County.

Attached is a map of directions to the site from Google Maps.

[1] Order entitled "STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2017-0023-DWQ GENERAL WASTE DISCHARGE REQUIREMENTS AND WAIVER OF WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES OF WASTE ASSOCIATED WITH CANNABIS CULTIVATION ACTIVITIES"



2. Site Characteristics

This project is associated with Humboldt County Application Permit # 12020-SP, and has been granted an interim permit extension for 9,325 ft^2 of outdoor cultivation and a DCC Provisional License CCL18-0002737.

Elevation within this parcel ranges from 2,600 to 2,800 feet. Mean annual precipitation is 50 to 70 inches. Mean annual air temperature is 48 to 52 degrees Fahrenheit. The frost free period is 150 to 250 days.

After being harvested, the cannabis is taken to an indoor area where it will be dried, trimmed, and cured. All work surfaces and equipment are maintained in clean, sanitary conditions. Protocols are strictly followed to prevent the spread of mold and fungus. The final cannabis product is then packaged and stored in a secure location.

Attached at the end of this document is a site map. The site map includes features such as: access roads, vehicle parking areas, streams, stream crossings, cultivation site(s), disturbed areas, buildings, and other relevant site features.

3. Soil Description

Attached is a soil map of the parcel. The soils within the area are primarily Hecker Family (Map Unit 256, 60% of parcel) and Minor Components (Map Unit 256, 40% of parcel).

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Six Rivers National Forest Area, California
Survey Area Data: Version 12, Sep 13, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 18, 2015—Oct 24, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
256	Hecker family, deep, 35 to 70 percent slopes	8.7	100.0%
Totals for Area of Interest		**8.7**	**100.0%**

<u>Map Unit 256</u>

The parent rock of the Hecker Family unit is residuum weathered from metasedimentary rock. There is 60 to 64 inches of depth to paralithic bedrock. The natural drainage class is well drained. The runoff class is high. The capacity of the most limiting layer to transmit water (Ksat) is very low to moderately low (0.00 to 0.14 inches per hour). The frequency of flooding is none. The frequency of ponding is none. The available water storage in profile is high (about 10.1 inches).

Minor Components contain rock outcrops (10% of the parcel), the Soulajule Unit (10% of the parcel), the Oxalis Unit (10% of the parcel), and the Melbourne Unit (10% of the parcel).

4. Water Storage, Use, and Irrigation Runoff

All water used for cannabis cultivation is sourced from primarily rain catchment and an onsite well. The property owner has an LSA agreement 1600-2019-0085-R1. The site has the capacity to store 96,500 gallons in on-site water tanks. Rain will be collected from 1,328 square feet of surface area. The water tanks are located to both the north and east of the parcel. A summary of water storage is shown below in Table 1.

Water Storage Type	Size (Gallons)	Number	Total (Gallons)
Tank	5,000	17	85,000
Tank	3,500	1	3,500
Tank	3,000	1	3,000
Tank	2,500	2	5,000
	Total		**96,500**

Table 1: Summary of water storage on the parcel.

During the off-season, well water is sent to irrigation tanks using an electric pump. Gravity then directs the flow to the main irrigation line. The amount of water used for the cultivation of cannabis will vary widely throughout the season, with peak periods of use, up to 6,000 gallons per week, occurring during the Summer months. Water is efficiently applied through direct manual irrigation at agronomic rates. During the cultivation season, irrigation starts with watering every four days, increasing to every other day during the Summer. Enclosed potted planting, along with careful manual irrigation, are used to improve water retention and reduce the possibility of irrigation runoff. A summary of estimated water use (in gallons) by month is shown below in Table 2.

Jan	Feb	Mar	Apr	May	June
0	0	1,000	3,000	6,000	14,000

July	Aug	Sept	Oct	Nov	Dec
24,000	24,000	24,000	24,000	0	0

Table 2: Summary of estimated water use (in gallons) by month.

Water flow is metered and will be regularly recorded and reported with the end of the year monitoring report. Tanks, lines, and connections will be checked periodically for wear, damage, and leaks. Repairs are done immediately or mitigated until replacement parts are obtained.

5. Sediment Discharge

Access Roads

The main road, Cobb Road, is a dirt and gravel surface which is maintained with proper drainage, requiring regular maintenance. The roads within the parcel are in okay condition, but do show evidence of minor erosion (e.g. surface rutting or gullying). On-site roadways require improved relief drains and dips, as well as covering such as gravel, to provide proper erosion prevention. Engineering services and implementation may be needed to achieve compliance. There is very little vehicle traffic (about one to two cars going in and out per day), there are bare ground surfaces, and there are currently no road maintenance activities. Storm water is drained from the access road via use of out-sloping. In addition, where possible, road surface drainage is filtered through vegetation, and work is done to avoid sidecasting. Ditches are graded and grass and weeds removed only when and where necessary. The site uses gravel to help prevent ruts and erosion. Access road stormwater drainage structures do not discharge onto unstable slopes, earthen fills, or directly to a waterbody. All required permits and approvals will be obtained prior to the construction of any additional access roads.

Stream Crossings

There are two stream crossing culverts on this parcel, which are within a Class III watercourse. These culverts fall under the Cobb Road Association's LSA 1600-2020-0278-R1**.** The NOA and the WDID No.1B21164CHUM are associated with the owner's APN 208-341-011 within the Cobb Road Association's 401 as well. All stream crossings will be maintained and inspected for blockage with regular monitoring detailed in the Monitoring section of this plan. All culverts appear to be installed parallel to the watercourse alignment to the extent possible, of sufficient length to extend beyond stabilized fill/sidecast material, and are embedded or installed at the same level and gradient of the streambed in which they have been placed to prevent erosion.

Legacy Waste

PG&E has done work in the past on power lines that go through the property which has resulted in mass wasting and destabilization in the area. A complaint was filed in 2017 but it was reported by the previous owner that the company did not respond to the complaint.

6. Sediment Erosion Prevention and Sediment Capture

Erosion Prevention

BPTC measures being implemented to prevent or limit erosion include planting non-invasive, non-persistent grass species (e.g. barley grass) on any bare slopes that appear in order to stabilize the surface in the event of heavy rainfall. Straw mulch is also used to stabilize exposed surfaces. Flow is monitored to avoid discharge onto fill, unstable areas, or areas that can enter the nearby Van Duzen River. Gravel has been placed underneath and around raised beds, and straw wattles surround the beds to prevent runoff. All roads on the property are graveled. In

addition, nobody is driving or operating vehicles/equipment within the riparian setbacks or within waters of the state unless authorized.

Sediment Control

BPTC measures being implemented to capture sediment that has been eroded include covering exposed surfaces with hydroseed and surrounding raised cultivation beds with gravel and straw wattles.

7. Monitoring

The access road, stream crossing, erosion prevention, and sediment control BPTC measures listed above will be monitored and maintained to confirm effectiveness and protect water quality by conducting an inspection:

- Weekly.
- Before and after any significant alteration or upgrade to a given stream crossing, road segment, or other controllable sediment discharge site.
- Prior to October 15th and December 15th to evaluate site preparedness for storm events and stormwater runoff.

Captured sediment will be stabilized in place.

8. Fertilizer, Pesticide, Herbicide, Fungicide, and Rodenticide

An overview of estimated annual products use is shown below in Table 3.

Product Name	Chemical Type	N-P-K or Active Ingredient	Annual Use (lb or gal)
Kelp Meal	Fertilizer	1-0-2	150 lb
Neem Meal	Fertilizer	4-2-1	200 lb
Earthworm Casting	Fertilizer	1.1-0-1	300 lb
Bat Guano	Fertilizer	6-3-1	100 lb
Green Sand	Fertilizer	0-0-1	100 lb
Alfalfa Meal	Fertilizer	2.5-0.5-2.5	50 lb
Bone Meal	Fertilizer	3-15-0	50 lb
Rainbow Mix Bloom	Fertilizer	2-14-2	40 lb
American Hydroponics GroMagnom	Fertilizer	10-6-17	60 g

American hydroponics Big, Bang, Bloom	Fertilizer	7-9-18	60 g
Liquid Bud Hardener	Fertilizer	1-5-4	55 g
Neem Oil	Pesticide	Neem Oil	20 fl oz
Dr. Zyme	Pesticide	Citric Acid	128 fl oz
Zerotol	Pesticide	Hydrogen Peroxide	20 fl oz
SM90	Pesticide	1-0.5-1	5 g

Table 3: Overview of estimated annual chemical product usage.

Products are delivered to the site as needed (typically at the beginning of the season). Plants are constantly cared for through a balance of irrigation water, soils, natural fertilizers and growth media. Plant tissue is carefully monitored to optimize plant growth and avoid over-fertilization. If chemicals are used they will be stored in a secure structure to ensure any spillage causes no threat of discharge onto the land. Hazardous materials are stored in secondary containment. Stored products are labeled properly and applied according to proper specifications. Pest management strategies rely on natural methods that apply organic pesticides only to the area of need, in a manner to avoid runoff and losses including organic matter from dead plant material.

Organic amendments are housed in an enclosed storage facility on-site. Pesticides are used to control mites and powdery mildew. Products which are not consumed during the growing season are kept in the enclosed storage facility to prevent discharge, including over the winter season. Appropriate Safety Data Sheets (SDS) are kept on-site as a component of the cultivator's Site Management Plan. A dedicated locked and secure indoor storage area is used for the storage of all amendments. Bulk fertilizers and chemical concentrates are stored, mixed, and applied per packaging instructions and/or at proper agronomic rates. Empty containers are disposed of in on-site, covered bins. Application rates will be tracked and reported with the end of the year monitoring. Storage instructions are posted at all times in an open and conspicuous location. SPCC cleanup kits provide a complete supply of spill cleaning materials, and are kept near fuel and chemical storage areas.

9. Petroleum Products

An overview of estimated annual petroleum usage is shown below in Table 4.

Product	Chemical Type	Annual Use (lb or gal)
Gasoline	Petroleum	600 gal

Table 4: Overview of estimated annual petroleum usage.

Petroleum products are delivered to the site as needed (typically at the beginning of the season). Fuels are stored with secondary containment, permanent cover, and side-wind protection. Materials are kept in their original containers with product labels in place and legible. Bagged and boxed materials are stored above-ground on pallets or similar stands, and not allowed to accumulate on the ground. Petroleum, petroleum products, and similar fluids are stored in a manner that provides chemical compatibility and protection from accidental ignition, the Sun, wind, and rain. Fuels, lubricants, and other petroleum products are stored, mixed, and applied per packaging instructions. Empty containers are disposed of in on-site, covered bins. Vehicles or equipment are only refueled outside of riparian setbacks. SPCC cleanup kits provide a complete supply of spill cleaning materials, and are kept near fuel and chemical storage areas.

10. Trash/Refuse and Domestic Wastewater

On an average day, there are about two employees, visitors, and/or residents at the site. Human waste, domestic wastewater, packaging, organic materials, plastic, paper, clay, glass, and spent growth media will be generated at this site. Trash containers are kept covered to prevent access from local wildlife and to prevent leaching to waters of the state. All plant waste saved for re-use is stored in a flat tarped area and covered. Other solid waste is contained and stored in covered bins, then securely transported weekly to the Humboldt Waste Management facility. All materials intended for re-use or recycling are stored in a clean, sanitary, and secure manner.

Portable toilets exist temporarily onsite to manage human waste and are serviced by B&B Toilets on a weekly basis. Toilet facilities shall be always operational, maintained in a clean and sanitary condition, and kept in good repair. Records of service and maintenance shall be retained for two years.

11. Winterization

Drainage culverts installed in 2022 are maintained throughout winter to prevent debris and soil blockages from drainage and sediment capture features and ensure adequate capacity exists. Nobody operates heavy equipment of any kind at the cannabis cultivation site during the winter period unless authorized for emergency repairs contained in an enforcement order issued by the State Water Board, Regional Water Board, or other agency having jurisdiction. In addition, if there is construction, all construction entrances and exits are stabilized to control erosion and sediment discharges from land disturbance. All loose stockpiled construction materials (e.g. soil, spoils, aggregate, etc.) that are not scheduled for use within 48 hours are covered and bermed. Erosion repair and control measures to the bare ground (e.g. cultivation area, access paths, etc.) are applied to prevent discharge of sediment to waters of the state. Native vegetation will be planted on all bare, exposed soil prior to the beginning of the winter period. Tarp coverings are taken down from cultivation areas in order to prevent water from channeling and gullying. If any BPTC measure cannot be completed before the onset of the winter period, the property owner will contact the Regional Water Board to establish a compliance schedule.

12. Remediation - Updated 12/13/23

Water Storage

Water tanks are lacking float valves. Two tanks are along an on-site road and may need additional setback. Water storage remediation issues will be resolved by October 2019.
[Resolved - See Map]

Culverts

Lower culvert facing the main road was not properly maintained by the previous owner and requires proper armoring or similar drainage control. A puddle forms next to the culvert demonstrating improper waterflow. Bottom half of the lower culvert needs engineering assessment for proper armoring and managed drainage of waterflow. Unmanaged culverts are creating potential sediment downflows and road damage. Engineering services and implementation are needed to achieve compliance. A road association is being formed to address culvert armoring and remediation issues, and plans are being made to resolve them by December 2021.
[Resolved - See LSA 1600-2020-0278-R1]