

SITE OPERATIONS PLAN

Nottingham

Application No. 12647

APN 208-271-002

Revised December 2020

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- A Site Map**
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- C Monthly Cultivation and Water Use Chart**
- D Remediation Plan Report**
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I. Site Plan Overview

A. Project Information and Description

Jason Nottingham (“Applicant”) is submitting this application for a Zoning clearance certificate for 8,325 square feet of outdoor Production of Cannabis on a 40 acre parcel. Humboldt County Assessor’s Parcel Number 208-271-002. This application is submitted in accordance with Humboldt County’s (“County”) Commercial Medical Marijuana Land Use Ordinance (“CMMLUO”).

The Zoning Clearance Certificate would achieve the following results for the Applicant:

1. Certification of the parcel as appropriately zoned for the proposed use.
2. Allow the Applicant to seek further permitting from the State of California.

B. Project Summary

The proposed project and Relocation site has the essential elements necessary for department approval via Zoning Clearance Certificate and minimal to no watershed or habitat impact.

The proposed project:

1. Is located on the upper portion of the parcel that is flat to gently sloping.
2. Utilizes on-site water from a permitted water Diversion and storage.
3. Is greater than 200 feet from any watercourse.
4. Will not require further grading, or similar disturbances, and will have no erosional effect.
5. Will not have any impact on neighboring parcels via light pollution or water or pollutant discharge, and a negligible impact on privately-maintained roads.

C. Project Location

1. Address

The Applicant's parcel is located within the Mad River watershed, approximately 2.78 miles northwest of the town Dinsmore, county of Humboldt, state of California. The parcel is comprised of 40 acres and is identified by Humboldt County Assessor's Parcel Number 208-271-002.

Site Topography

The cultivation area and surrounding roads are gently sloping to flat at 0-2% slope, and well drained. A map of the Parcel's topography is included as Attachment 'B.'

D. Easements

There is one easement, Anderson Ford Road goes through the Parcel.

E. Natural Waterways

The Parcel has a total of six (6) stream crossings. #5 on map Attachment 'B' is a unnamed class II watercourse. While #'s 1, 2, 3, 4, & 6 are unnamed Class III seasonal watercourses, with no fish inhabitation.

The Proposed Project is situated at greater than 200 feet from either of these watercourses.

The Applicant is enrolled in the NCRWQCB's Waiver of Waste Discharge program as a Tier 2* discharger. There is no expected discharge from the relocated and proposed cannabis cultivation site, and no erosional conditions.

The water used for cannabis cultivation is diverted at no more than 1-3 gallons per minute the months of Oct 15th- Mar15th from a permitted SWD (surface water diversion) and gravity fed to storage. All diversion is monitored by a in-line meter.

F. Relocation and Area of Proposed Cultivation Site

The relocated and proposed cultivation area can be seen on the site map, Attachment 'A.' The site is situated at greater than 200 feet from any watercourse. The Relocation of Project to the top of property is environmentally superior and will protect the watershed and habitat. No seasonal road is needed to access the cultivation site and there are not water crossings associated with said site.

There is a permanent access road in appropriate standard condition. The road from the property boundary to driveway of relocated and proposed cultivation site is rocked with adequate surfacing and drainage features. The access driveway is located at the low point of a 0-2% slope. No erosional features have been observed and sediment transport risk is low.

The proposed cultivation area is located greater than 600 feet from any School, School Bus Stop, Church or Other Place of Religious Worship, Public Park, or Tribal Cultural Resource. Additionally, the proposed site is located greater than 30 feet from any property line.

G. Access Roads

The Parcel is located off Anderson Ford Rd, which is maintained privately. There are no stream crossings on access road or driveways associated with the relocated cultivation site.

H. Existing and Proposed Buildings

Existing: There is multiple ag exempt sheds on the Parcel and two (2) shipping containers.

Dimensions of existing sheds vary. Building use and dimensions are shown on the attached site plan.

Shipping containers are each 12 X 20 Ft and placed on footings alongside one another.

Proposed:

Applicant proposes to build five (5) 20' x 80' greenhouses, and one (1) 10' x 32.5' greenhouse for a total of 8,325 square foot cultivation area.

Applicant proposes to build a 20' x 60' (1,200 square foot) nursery for immature plants within the cultivation site. The square footage of the nursery does not exceed 15% of the total cultivation area.

I. Water Storage, Use and Watershed Protection

1. Water Storage

All water used for cultivation of cannabis is sourced on-site from the Parcel's permitted spring diversion (SIUR #H100025, LSAA #1600-2017-0419-R1), and stored in hard plastic tanks, amounting to 36,000 gallons. The water bladder has been removed and will be replaced with eight (8) 5,000 gal HDPE water storage tanks for an additional 40,000 gallons of storage.

Fisch Drilling has been contracted to install a permitted groundwater well to provide additional water for cannabis irrigation. The proposed well will be drilled in early 2021 before the growing season begins.

A 3,000 gallon fire suppression tank is located on Anderson Ford Road.

2. Water Use

The amount of water used for the cultivation of cannabis will vary seasonally, with peak periods of water use occurring during the summer months. The Applicant's cultivation and water use is outlined in the Cultivation and Water Use Chart, attached as Attachment 'C.'

All water used for the cultivation of cannabis is sourced on-site from the Parcel's permitted Water Diversion and storage.

Irrigation of cannabis is completed by a timed drip system or by hand, and adjusted daily and weekly based on atmospheric conditions, such as temperature and humidity.

3. Watershed and Habitat Protection

The Relocated and proposed project is superior for this explicit reason: watershed and habitat protection.

The proposed project is located at greater than 200 feet from all watercourses. There will be no surface discharge from the cultivation site to the watercourses on parcel, of sediments or any other regulated materials.

The watercourses and surrounding vegetation will not be disturbed.

Irrigation is done with a timed dripper or by hand at a rate of 1-4 gallons per minute and is limited by the capacity of the storage tank. There is no potential for over irrigating.

Relocated and proposed cultivation site is very gentle slope 0-2% away from watercourses. No run off or discharge to stream is expected.

Cultivation area will be vegetated with cover crop if left open in the winter to prevent soil loss.

The Applicant is enrolled with the SWRCB's Waiver of Discharge program as a Tier 1 Low Risk discharger. NOA is pending. A Site Management Plan (SMP) will be submitted once the NOA and WDID have been issued.

J. Distances from Significant Landmarks

There are no Schools, School Bus Stops, Churches or Other Place of Religious Worship, Public Parks, or Tribal Cultural Resources within 600 feet of the cultivation site. The site is located at greater than 30 feet from any property boundaries, and greater than 300 feet from any off-site residences.

II. Cultivation and Operations Plan

A. Water Use and Irrigation

The amount of water used for cultivation of cannabis will vary seasonally, with peak periods of use during the summer months. The Applicant's Cultivation and Water Usage is outlined in the Cultivation and Water Usage chart, attached as Attachment 'D.'

The water used for cannabis cultivation is sourced on-site from Parcel's permitted water diversion. Water is diverted from the months of Oct15th-Mar15th for forbearance at rate no more than 1-3 gallons per minute and gravity fed to storage. All diversion is monitored by an in-line meter. All storage tanks are regulated with float valves. For use water is then pumped to a storage tank above cultivation site and gravity fed to garden beds.

See Attachment 'D' for the Cultivation and Water Use Chart.

B. Watershed Protection

The proposed project is located at greater than 200 feet from any watercourse. There will be no grading or other erosional disturbances. There will be no surface discharge from the cultivation site to the river or stream, of sediments or any other regulated substances.

C. Materials Storage

Currently there are no pesticides or herbicides registered for use directly on cannabis. Approved materials are listed in Table 2, Attachment 'E'. These materials will be contained in secondary containment vessels.

All fertilizers and amendments will be located in a storage shed on the Parcel. Fertilizers, amendments, and compost teas will be placed on the shelves and floor, in secondary containment vessels. All labels will be kept and directions followed when amendments are applied. The storage area will have posted instructions for cleaning up spills and a spill kit that contains a container, gloves, towels, absorbent socks, and an absorbent material (kitty litter).

A small amount of gasoline (approximately 25 gallons) will be stored on-site for use in a 6500 and 3000watt gasoline-powered generators. This will be contained within the shed, in a secondary containment vessel at all times.

D. Power Source

The Parcel has no on-site connection to Pacific Gas and Electric Power. Therefore, alternative power is required. A combination between solar and Gasoline powered Generators 46+ amps of electricity are available for use at the cultivation site, which is sufficient.

Projected generator use depends on cultivation activity, and time of year. Whenever possible the use of solar is preferred.

Generators are located in a small shed for noise reduction. Noise levels do not exceed 49-58 dB.

A Noise Assessment is included in Attachment E.

E. Light Reduction and Compliance

The Nursery Greenhouse using mixed light September through May will use internal blackout sheeting to shield greenhouses so little to no light enters or escapes. The supplemental lighting shall comply with the International Dark Sky Association standards for Lighting Zone 0 and Lighting Zone 1, and be designed to regulate light spillage onto neighboring properties resulting from backlight, uplight, or glare.

F. Cultivation Activities

The proposed cultivation site will utilize light-deprivation. There will be ongoing harvest ("Rolling Harvest") July through October, approximating the yield of two cycles.

Cultivation activities will typically begin in April, with propagation in the on-site proposed nursery, located within the cultivation area. Supplemental lighting will be used in nursery September through April. Sunlight deprivation will be practiced May through August. All Supplemental lighting will be shielded from outside view sunset to sunrise. Harvest begins in July and continues through October.

See attached Cultivation and Water Use Chart for monthly schedule of activities.

G. Employment Practices

The Applicant will comply with all applicable federal, state, and local laws and regulations governing California Agricultural Employers, which may include federal and state wage and hour laws, CAL/OSHA, OSHA, California Agricultural Labor Relations Act, and the Humboldt County Code (including the Building Code).

The Applicant expects to employ one to two full-time employees. The farm is currently operated by the applicant and family members only.

1. Summary of Employment Safety Practices

All employees will receive adequate safety training relevant to specific job functions, which may include:

- a) Emergency Action Responses
- b) Employee accident reporting and investigation policies
- c) Fire Prevention
- d) Materials Handling Policies
- e) Personal Protective Equipment use, including Respiratory Protection.
- f) Emergency Contacts, Including the Operation Manager, Emergency Responders and Poison Control Contacts. This information will be posted where visible during daily work.

2. Toilet and Hand-washing Facilities

There are two (2) portable toilets on-site serviced by Six Rivers Portable Toilets. Which will be more than sufficient to handle one to two employees without any adverse effects on the environment.

There are three (2) hand-washing facilities with hot water.
All grey water from hand-washing facilities is collected into an above ground tank.

3. Drinking Water Source

The drinking water is purchased in bulk from New World Water in Arcata.

4. Road Use

The increased road use from one to two full time employees will have a negligible effect. We do not expect to hire any additional seasonal employees, so there will not be a seasonal increase in road use.

5. On-site Housing

No on-site housing is available or necessary at this time.

H. Security Measures

The Applicant will install a new perimeter security fence around the cultivation area. The new security gate will be installed at the access road prior to commencement of cultivation activities. A new video surveillance system with motion sensitivity alerts and motion activated lights will be installed and monitored. All greenhouses will have locked doors.

The Shipping Containers will be locked at all times, and will additionally be monitored inside and out with video surveillance.

I. Remediation Plan and Cultivation Site Restoration

1. Removal of all materials

Remove all cultivation and associated materials from designated remediation site or Riparian buffer. This includes plant mass, root balls, potting containers, cultivation medium and any materials associated with the preparation, cultivation and harvest of commercial cannabis. No further cultivation will occur at said site.

2. Stabilize slope

All disturbed and or unstable slopes shall be stabilized and returned to pre-project conditions. Slopes shall be contoured as close as feasible to natural grade and aspect. Temporary erosion control shall be applied to prevent sediment run-off.

3. Revegetation

Soil exposed as a result of project work, soil above rock rip-rap, and interstitial spaces between rocks shall be revegetated with native species by live planting, seed casting, or hydroseeding prior to the rainy season.

Restoration of the quality/health of the riparian stand shall promote:

- a) Shade and microclimate control
- b) Delivery of wood to channels
- c) Slope stability and erosion control
- d) Ground cover

J. Remediation plan Report

See attachment "D"

K. Soils Management Plan

Potting soil will be stored in the soil storage area designated on the attached Site Plan. Soil shall be covered with a weighted tarp to prevent runoff and sediment transport. After harvest and prior to November 15th, potting soil in raised beds shall be planted with cover crop or covered in weighted tarp. Soil that is not intended to be amended and reused will be hauled to Eel River Disposal.

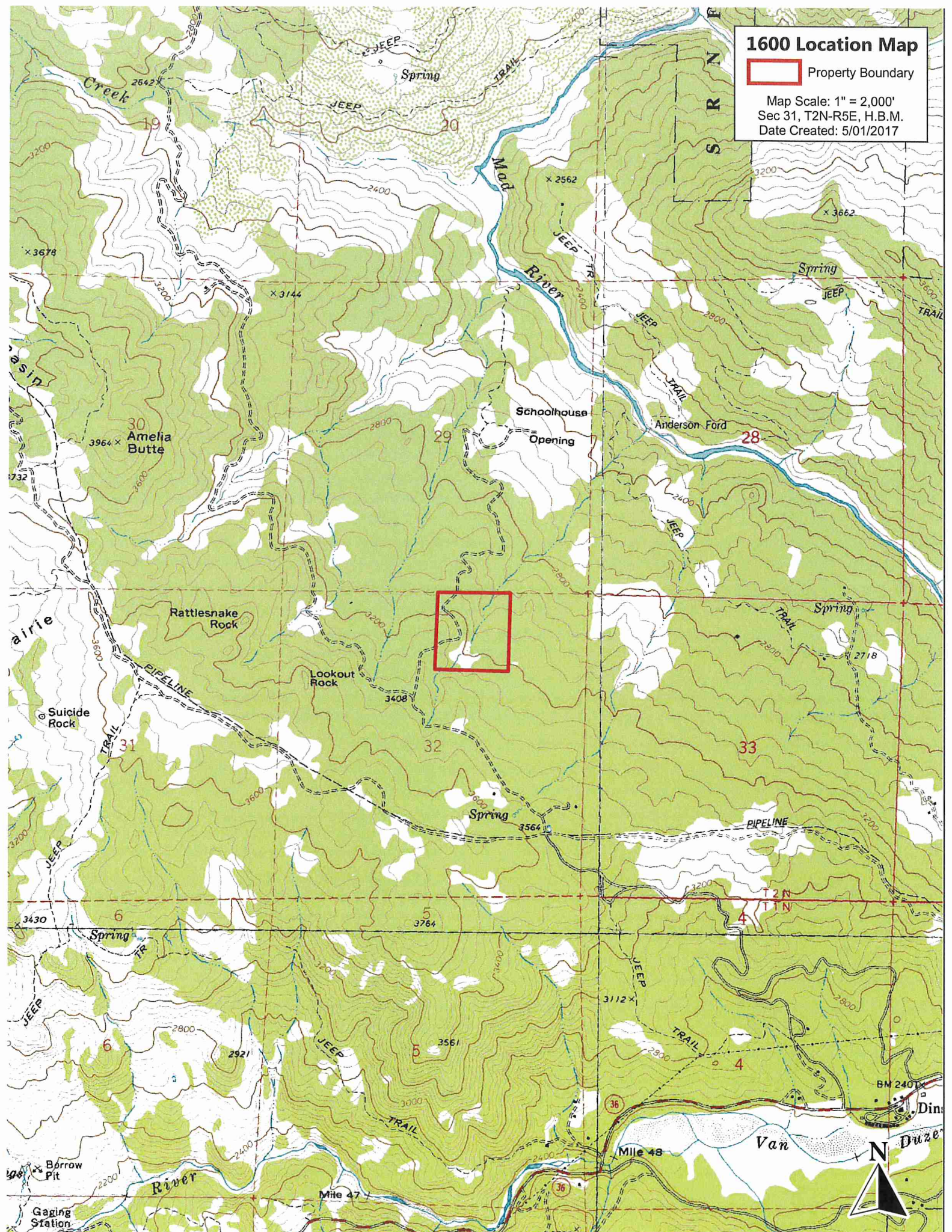
ATTACHMENT A

ATTACHMENT B

1600 Location Map

 Property Boundary

Map Scale: 1" = 2,000'
Sec 31, T2N-R5E, H.B.M.
Date Created: 5/01/2017



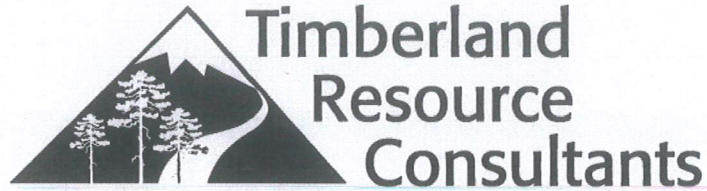
ATTACHMENT C

Attachment 'C'

Table 1. Monthly Cultivation and Water Use Chart

Month	Stage of Cultivation			Water Usage Estimate	
	Vegetative	Flowering	Harvesting	Total daily Use	Total Monthly Use
January	x			35	1050
February	x			83	2500
March	x			100	3000
April	x	x		116	3500
May	x	x		250	7500
June	x	x	x	333	10000
July	x	x	x	466	14000
August		x	x	466	14000
September		x	x	333	10000
October		x	x	116	3500
November	x			35	1050
December	x			35	1050

ATTACHMENT D



165 South Fortuna Boulevard, Fortuna, CA 95540

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trc@timberlandresource.com

October 19, 2020

Cannabis Services Division
Humboldt County Planning and Building Department
3015 H Street
Eureka, CA 95501

Dear Planner,

Re: APN 208-271-002
Application #12647

This letter is in response to Department Policy Statement No. 16-002, which states, *"If a workable alternative cultivation site exists on a parcel and its relocation will bring the cultivation into compliance with performance standards of the CMMLUO, this approach could meet the objectives of the CMMLUO provided it is the environmentally superior option."*

As a Third-Party representative to the Water Board who prepared the Applicant's CDFW 1600 Notification; Timberland Resource Consultants recommends relocating Cultivation Site 2 into the footprint of Cultivation Site 1 (see attached maps). The environmental benefits associated with relocation is described below.

1. Cultivation Site 2 does not comply with State-wide Order WQ 2017-0023-DWQ, General Requirement and Prohibition Number 37, which states: *"Cannabis cultivators shall comply with the minimum riparian setbacks for all land disturbance, cannabis cultivation activities, and facilities"*, which in this case is a minimum 50 feet for Class III watercourses. Cultivation Site 2 is located within the Class III riparian buffer.
2. Based upon the Applicant's CDFW 1600 Agreement (1600-2017-0419-R1) Cultivation Site 2 is located within a Class III riparian buffer. The watercourse is currently diverted along the northern edge of the cultivation site via a trench, which discharges back into the Class III channel 150 feet away. The CDFW 1600 Agreement requires decommissioning this site and returning the stream back to its original channel.

Cultivation Site 1 is an environmentally superior site primarily due to the proximity to watercourses. The closest watercourse (Class III) to Cultivation Site 1 ranges from approximately 150-200 feet away. The slopes at Cultivation Site 1 are less steep (less than 30%) than Cultivation Site 2 (greater than 30%). Relocation may allow the Cultivator to lower/lessen the "risk" designation with regards to State-wide Order WQ 2017-0023-DWQ. Sites that pose a higher threat to water quality require a greater level of regulatory oversight, which translates to higher costs to achieve water quality protection. Minimizing risk by moving the site not only results in environmental superiority, but also saves time, money and resources from preparing additional technical reports.

Cultivation Site 2 Restoration

As of the October 14, 2020 site visit, the landowner has removed nearly all cultivation related infrastructure and material from the site. Remaining material such as a pile of bamboo stakes and several wire clothes shall be removed. Imported soil, water storage tanks, and water lines have been removed.

Per the Applicant's CDFW 1600 Agreement (1600-2017-0419-R1); the language in the table below for Crossing 6 pertains to the instream work required to realign the Class III watercourse back into its native channel.

Table 1. Project encroachments with descriptions.

ID	Latitude/Longitude	Description
POD 1	40.5124, -123.6358	Water diversion: Water diversion from a Class II stream in accordance with measures in this agreement.
Crossing 1	40.5133, -123.6323	Rock ford: Upgrade existing dirt ford on a Class III stream to a rock ford. Install rock armoring as needed to minimize erosion potential.
Crossing 2	40.5132, -123.6324	Rock ford: Upgrade existing dirt ford on a Class III stream to a rock ford. Install rock armoring as needed to minimize erosion potential.
Crossing 3	40.5130, -123.6338	Rock ford: Upgrade existing dirt ford on a Class III stream to a rock ford. Install rock armoring as needed to minimize erosion potential.
Crossing 4	40.5130, -123.6344	Rock ford: Upgrade existing dirt ford on a Class III stream to a rock ford. Install rock armoring as needed to minimize erosion potential.
Crossing 5	40.5128, -123.6352	Rock ford: Upgrade existing rock ford on a Class III stream. Remove wood at downstream end of crossing and install rock armoring as needed to minimize erosion potential.
Crossing 6	40.5157, -123.6345	Stream remediation: 1. Decommission existing stream crossing. 2. Restore 150 feet of stream channel adjacent to cultivation site. 3. Remove fencing, soil, and other cultivation materials within 150 feet from stream banks. 4. Revegetate stream banks, 30 feet from top of bank with native conifers (container, 8-10 feet spacing).

Concurrent with heavy equipment work associated with instream work described above; the Timberland Conversion Report dated October 19, 2020 requires the following:

1. A small segment of fill slope, approximately 50-75 feet in length and 3-4 feet in depth, located along the southeastern periphery of Cultivation Site 2, is perched and too steep. Concurrent with the restoration and remediation of this site per CDFW 1600 Agreement #1600-2017-0419-R1; the fill slope shall be pulled back to a slope steepness no greater than 2:1 or 50%.

Erosion Control Plan

Following the instream work and removal of perched fill, exposed bare mineral soil will need to be treated in compliance with State Water Resources Control Board Order WQ 2019-0001-DWQ, which states the following:

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:

- *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.

- *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.*
- *Long-term erosion prevention and sediment capture measures shall be implemented 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 access roads or improve access road drainage, installation of properly-sized culverts, gravel placement on steeper grades, and stabilization of previously disturbed land.*
- *Maintenance of all erosion protection and sediment capture measures is required year-round. 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.*

Reseeding Methods: Reseeding is key to site restoration, especially at sites where understory vegetation or topsoil has been removed. Grasses are fast-growing and quickly provide vegetative cover to protect exposed soils from erosion. Native grasses are typically better adapted to site-specific climate and environmental conditions. Though reseeding is a simple practice, timing is important. Seeds should be planted during the wet seasons so soils are viable for seed germination. Planting during hot summer or early fall months can deprive seeds of necessary moisture.

Recommendation: Reseed all bare mineral soil within at Cultivation Site 2, and any additional areas of disturbed soil with a native grass seed mix. Manually distribute seed mix evenly across the site during late fall, winter, or early spring and follow any specific instructions accompanying seed mix. No equipment use or seed burial is required. Some areas will have begun to naturally revegetate; if a given area has more than 75% ground cover, no reseeding is necessary. Though the seed mix may vary, TRC recommends the following:

Native Erosion Control Mix

Species Content:

- Bromus carinatus, California Brome
- Elymus glaucus, Blue Wildrye
- Festuca microstachys, Small Fescue
- Trifolium willdenovii, Tomcat Clover

This grass mixture features California native grasses that are acclimated to varying conditions around our state. Typically, this mix will grow 2 to 3 ft tall given normal soil conditions and normal rainfall patterns. On shallow soils, there is potential for vegetative cover if there are adequate resources to sustain 24 to 36 inches of annual reseeding vegetation. This mix can be modified with the addition of other species including wildflowers.

This seed mix can be purchased from Pacific Coast Seed in Livermore, California, on the following website: <http://store.pcseed.com/product/UNative-Erosion-Control-Mix.aspx>

Straw Mulching: Straw mulching can be used to protect newly sown seeds from wind and high precipitation events as well as stabilize exposed soils. Water Board Order WQ 2019-0001-DWQ requires that 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.

Recommendation: After reseeding, apply weed-free straw mulch to Cultivation Site 2 and all additional areas of disturbed soil at one bale per 800 square feet. Some areas will have begun to naturally revegetate; if a given area has more than 75% ground cover, no mulching is necessary.

Restocking Plan

Following the instream work, removal of perched fill, and the application of erosion control (seed and straw); TRC's Timberland Conversion Report dated October 19, 2020 requires replanting Cultivation Site 2 with Douglas-fir per the attached Restocking Plan.

Appurtenant Access Road

The segment of Anderson Ford Road accessing Cultivation Site 2 was closely evaluated for compliance with State Water Resources Control Board Order WQ 2019-0001-DWQ, which states the following:

Cannabis cultivators shall ensure that all access roads are hydrologically disconnected to receiving waters to the extent possible by installing disconnecting drainage features, increasing the frequency of (inside) ditch drain relief as needed, constructing out-sloped roads, constructing energy dissipating structures, avoiding concentrating flows in unstable areas, and performing inspection and maintenance as needed to optimize the access road performance.

Anderson Ford Road is a permanent rocked road that is in moderately good shape with no stream crossings, drainage facilities, or signs of excessive erosion located within the landowner's ownership. Following restoration of Cultivation Site 2, the landowner will not need to use the segment of Anderson Ford Road located between Cultivation Site 1 & 2 for cultivation related activities. However, because the property is enrolled in State Water Resources Control Board Order WQ 2017-0023-DWQ (WDID:1_12CC427418); until the Discharger terminates coverage under the General Order and receives a Notice of Termination (NOT), all roads located within the property need to be maintained per the Order regardless whether cannabis cultivation occurs.

Sincerely,



Chris Carroll, RPF #2628
Timberland Resource Consultants

Pictures



Picture 1: Cultivation Site 1. Photo date 10-14-2020.

Pictures



Picture 2: Cultivation Site 2. Dashed blue line is the location of the Class III's natural channel. The CDFW 1600 Agreement (1600-2017-0419-R1) requires remediation of the diverted stream back into its original channel. Photo date 10-14-2020.

Pictures



Picture 3: Cultivation Site 2. Dashed blue line is the location of the Class III's natural channel. The CDFW 1600 Agreement (1600-2017-0419-R1) requires remediation of the diverted stream back into its original channel. Photo date 10-14-2020.

Pictures



Picture 4: Perched fill located along Cultivation Site 2's eastern periphery, which shall be pulled back to a minimum 2:1 slope steepness. Photo date 10-14-2020.

Pictures



Picture 5: Native vegetation in the form of Douglas-fir and Pacific madrone seedlings and saplings located in the eastern portion of Cultivation Site 2. All native vegetation shall be protected from restoration activities to the extent feasible. Photo date 10-14-2020.

APN 208-271-002

Location Map

 Property Boundary

Map Scale 1" = 2,000'
Section 32, T2N. R5E, HB&M
Showers Mountain 7.5' USGS



N

APN 208-271-002

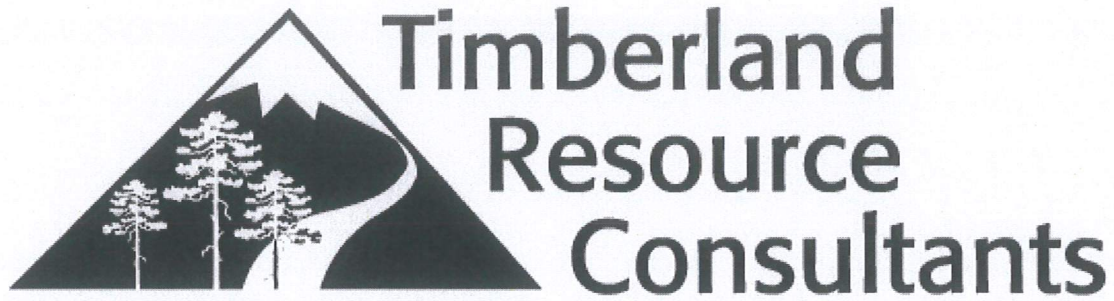
Restoration Plan Map

-  Property Boundary
-  Cannabis Cultivation Site
-  Seasonal Dirt/Rock Road
-  Anderson Ford Road / Permanent Rocked Road
-  Class II Watercourse
-  Class III Watercourse
-  Site to be Restored per Restoration Plan
-  Perched fill material to be removed

Map Scale 1" = 200'
Section 32, T2N, R5E, HB&M

Cultivation Site 2

Cultivation Site 1



RESTOCKING PLAN

FOR

208-271-002

October 18, 2020

165 South Fortuna Blvd

Fortuna, CA 95540

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trc@timberlandresource.com

Restocking Plan

Restocking Area: See attached Restocking Plan Map

Site	Total Acreage	# Trees at 10'x10' Spacing
Cultivation Site 2	0.46	200

Site Preparation: Site preparation is commonly utilized to facilitate timber stand establishment. The primary objective of this practice is to create an area suitable for planting seedlings and establishing a new stand of trees. Site preparation activities remove or reduce competing vegetation, reduce or remove unwanted trees and logging debris, and prepare the soil to ultimately promote the growth and survival of desired tree species. There are many methods of site preparation that fall under either chemical or mechanical site preparation. Subsoiling/ripping is a mechanical site prep method for heavy soils on cutover timberlands or agricultural lands that have a compacted layer at or below the soil surface that limits root growth and development. Subsoiling/ripping increases aeration and water-holding capacity of compacted soils and breaks up root restricting hardpans and/or traffic pans. Chemical preparation includes broadcast and directed herbicide application.

Recommendation: Concurrent with the grading required to restore the Class III stream diversion and removal of perched fill material; the landowner shall ensure that all graded and/or disturbed surfaces be ripped with heavy equipment to help facilitate replanting. Areas that are left undisturbed from heavy equipment, in the interest of protecting native vegetation and conifer/hardwood regeneration, may be planted with a pick/shovel.

Types of Seedlings: Harvested and/or understocked timberlands should be artificially regenerated with naturally-occurring conifer species and cultivars well-adapted to the timber stand's specific climate, elevation, and other environmental conditions. Planting seedlings from appropriate seed zones and elevation ranges ensures better seedling success and, eventually, a more resilient timber stand. Specifically, timberland within the property is characterized by Douglas-fir and oak woodland. The areas to be planted occur within California Seed Zone 303 at approximately 3,200 feet in elevation.

Recommendation: The landowner shall plant Douglas-fir (best suited for Seed Zone 340 at ~3,000-foot elevation) at a uniform spacing no less than 10-feet by 10-feet, or 435 trees per acre.

Most conifer seedlings that come from nurseries are available in two forms: bareroot seedlings and containerized seedlings. Bareroot seedlings are essentially stock whose roots are exposed at the time of planting. Bareroot seedlings are grown in nursery seedbeds and lifted from the soil in which they are grown to be planted in the field. Containerized seedlings are grown individually in a variety of hard-walled vessels or in peat pots from seed. They're typically more expensive than bareroots but usually have a higher survival rate after planting due to their well-formed root system.

Recommendation: Given the conditions of the site and the higher survival rate associated with containerized stock, use containerized seedlings if available.

Seedling Care: Seedling care and handling is extremely important to ensure post planting survival.

Recommendation: For long-term storage (more than 3 days), store seedlings at 33 to 36 degrees Fahrenheit. For short-term storage (several hours to less than 3 days), store below 42 degrees Fahrenheit. At the planting site, take care not to let the roots dry out and avoid exposure to the sun or warmer temperatures.

Restocking Plan

Planting Instructions: When planting seedlings, the landowner or tree planter should abide by the following:

1. Tree planting shall only occur in winter or early spring. Tree planting should not occur if the ground is frozen or during unusually warm periods.
2. Dig a hole at least one inch deeper and wider than the seedling roots. If planting from a container, dig the hole an inch deeper and wider than the container.
3. Place the seedling into the hole taking care not to bend the taproot, or main vertical root, and cover with soil.
4. Pack the soil down firmly around the seedling to remove any air pockets.
5. See Appendices A-D for illustrations for correct planting techniques.

Stock Purchase: Ideally, landowners should procure seedlings from sources growing local, site-specific stock. Appropriate stock is determined by stand type, seed zone, elevation, as well as other factors like soil type, site quality, and weather.

Recommendation: The RPF recommends acquiring conifer seedlings from Green Diamond Resource Company's nursery in Korbel, California. For inquiries, contact Nursery Superintendent Glen Lehar at (707) 668-4439. He will recommend the appropriate stock based on geographic area and site conditions.

Monitoring Seedling Survival: Although a newly planted stand immediately fulfills stocking standards, the timber stand must continually contain an average density of at least 300 trees per acre (or 12-foot by 12-foot spacing) in order to meet the intent of the California Forest Practice Rules (CFPRs). A **Countable Tree** per 14CCR 895.1 must be in place at least two growing seasons among other requirements. Seedling survival can vary widely depending on several factors including genetics, weather, herbivory, etc. Monitoring growth and success of planted seedlings is key to ensure a minimum 300-point count stocking level is maintained or achieved 2-years after planting.

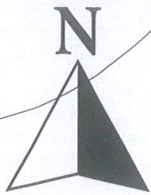
Recommendation: Monitor growth and success of planted trees one year after planting. Conduct a point count stocking sampling survey (protocol described in CFPRs 14CCR 1072). If less than 55% of the planted area meets the 300-point count minimum stocking level, repeat the planting process.

Certification: Within five years of planting, a report of stocking shall be submitted to the county by an RPF, which certifies that the area meets the minimum stocking standards of 14 CCR 912.7.

Sincerely,



Chris Carroll, RPF# 2628
Timberland Resource Consultants

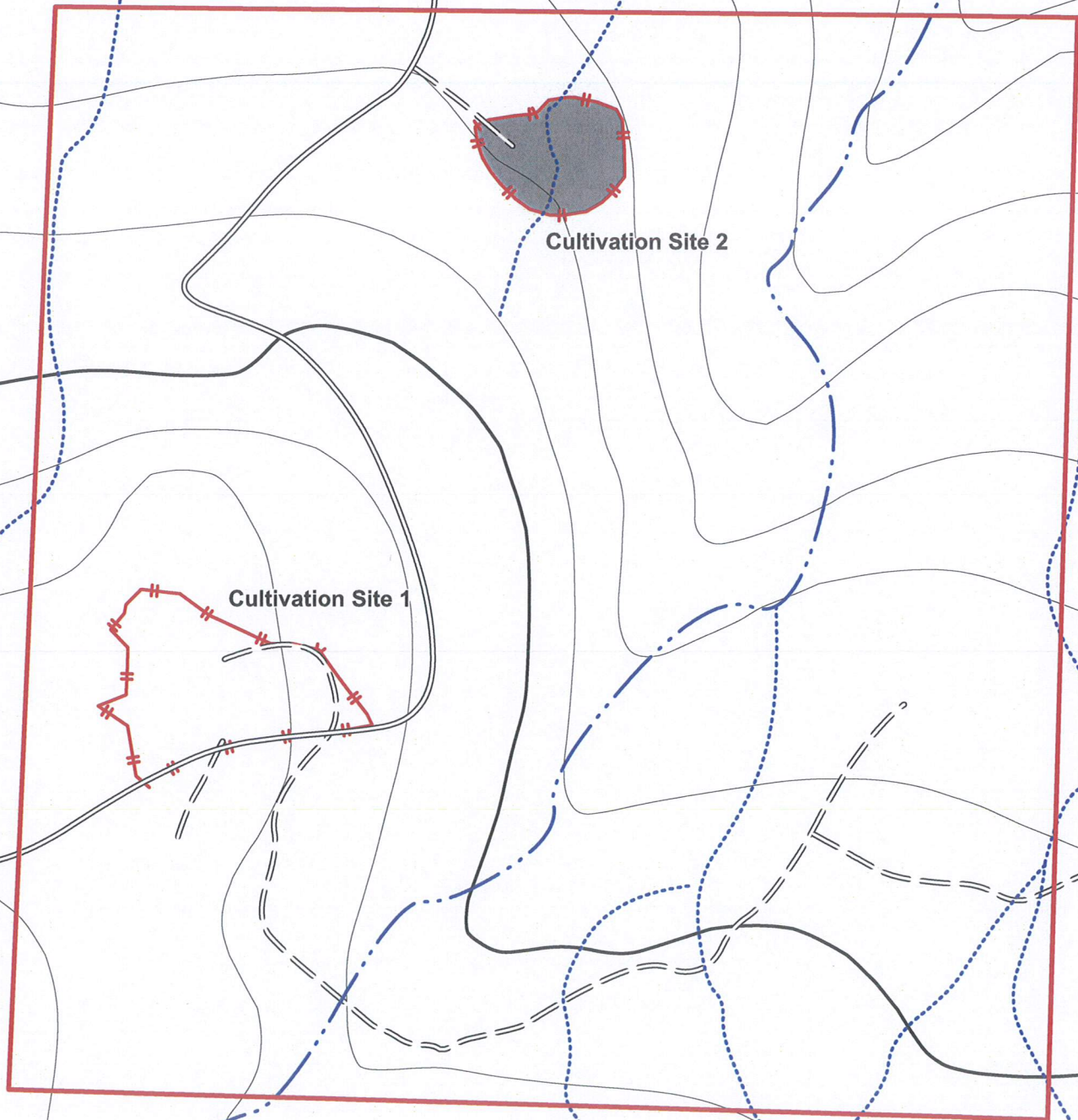


APN 208-271-002

Restocking Map

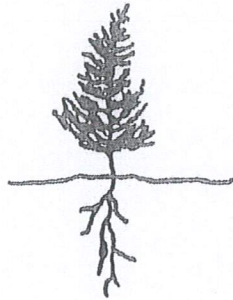
-  Property Boundary
-  Cannabis Cultivation Site /
Timberland Conversion
-  Seasonal Dirt/Rock Road
-  Anderson Ford Road /
Permanent Rocked Road
-  Class II Watercourse
-  Class III Watercourse
-  Restocking Area

Map Scale 1" = 200'
Section 32, T2N, R5E, HB&M



APPENDIX A

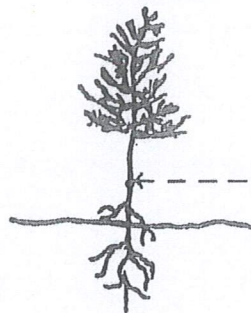
CORRECT METHOD OF SEEDLING PLANTING



- Soil firmly packed around roots.
- No air pockets.
- Roots straight with no J or L bends.
- Root collar at or slightly below ground level.
- Root not pruned.

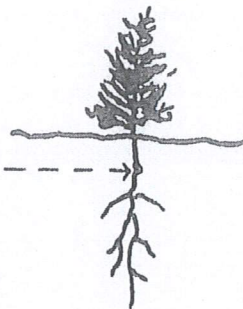
ERROR IN PLANTING

Too shallow



- Hole not deep enough.
- Root collar and upper roots exposed.
- Roots dry out.

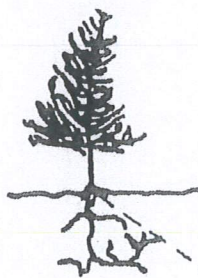
Too Deep



- Hole is too deep.
- Root collar buried.

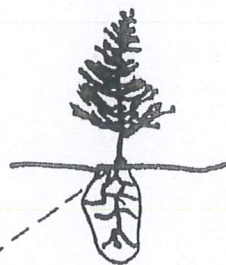
Root Collar

J or L Roots



Hole is not deep enough — planting in rocky soil.
Roots cannot effectively take up water.
Tree not wind-firm.

Air Pockets

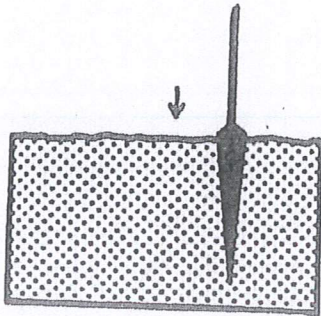


- Soil not firmly packed around roots.
- Air pocket forms.
- Roots dry out.

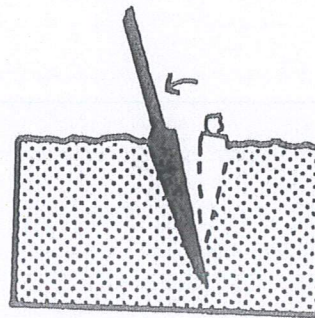
Root Collar

APPENDIX B
PLANTING WITH A FLAT BAR

1. Insert flat bar straight down.

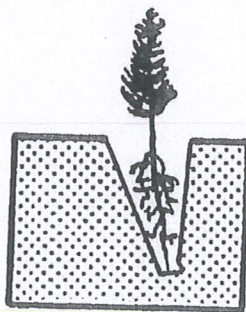


2. Pull flat bar backward to open hole.

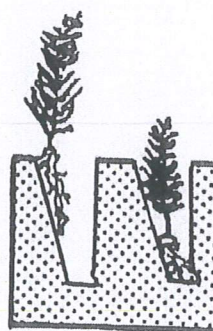


3. Remove flat bar and place seedling at correct depth with root collar at or slightly below ground level.

Correct

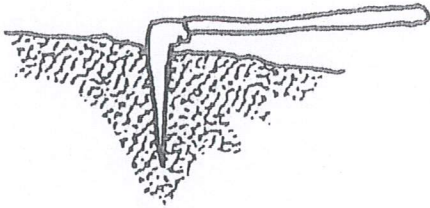


Incorrect

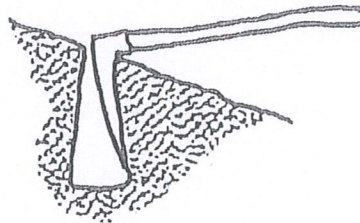


APPENDIX C
PLANTING WITH A HOE

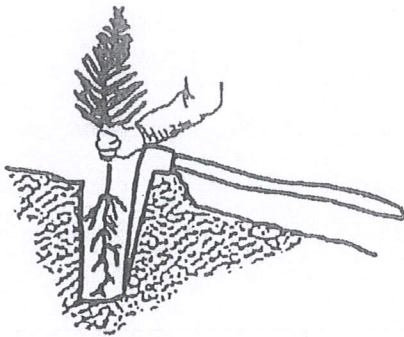
1. Swing hoe to get full penetration.



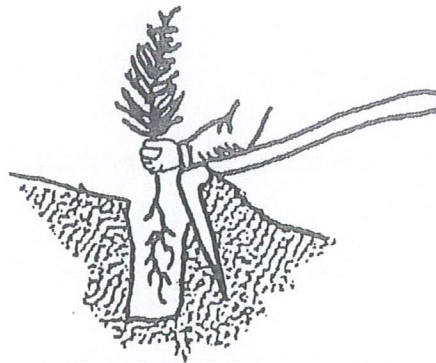
2. Lift handle and pull up to widen hole.



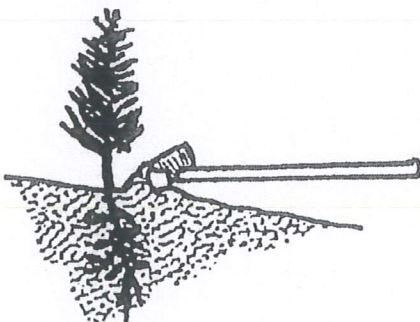
3. Place seedling while using hoe to hold back soil.



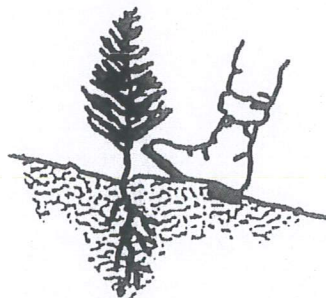
4. Use hoe to pack soil at bottom of hole.



5. Use hoe to pack soil at top hole.



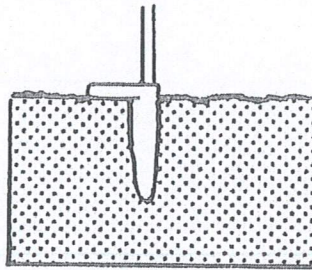
6. Firm soil around seedling with feet.



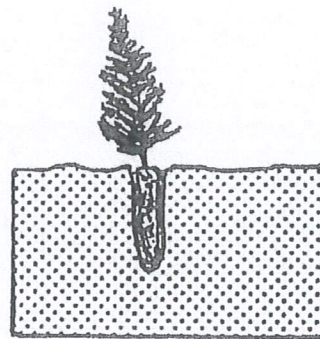
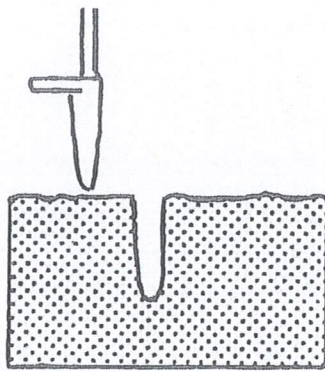
APPENDIX D

PUNTING WITH A PLUG BAR

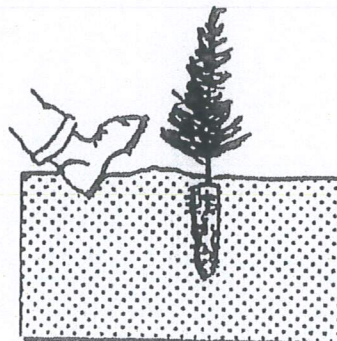
1. Insert plug bar straight down until plug bar footrest is level with ground.



2. Remove plug bar and place seedling in hole.



3. Firm soil around seedling with heel of boot.



ATTACHMENT E

LIGHT AND NOISE ASSESSMENT

Prepared for:

Trichome Acres, LLC.

APP# 12647

APN 208-271-002

November 13, 2020

Prepared by:

Christina Sundman
Environmental Scientist
PR Professional Services
christina@prproservices.com

OBJECTIVE

Humboldt County's Commercial Medical Marijuana Land Use Ordinance (CMMLUO) No. 2559 sets forth performance standards for noise and light sources related to cannabis cultivation. The following is an evaluation of existing light and noise sources associated with cannabis cultivation at Trichome Acres, LLC (Application #12647) located on Anderson Ford Road near the community of Dinsmore. The purpose of this study is to analyze baseline ambient noise levels and determine the impacts of increased noise levels associated with cannabis cultivation.

SITE DESCRIPTION

The subject parcel (APN 208-271-002) is located northwest of Dinsmore on Anderson Ford Road, off of Bear Creek Road. Permitted cultivation activities take place west of Anderson Ford Road, which runs through the property. The 40-acre parcel is zoned for forestry recreation (FR). Land uses on neighboring parcels include timber production and commercial agriculture. The nearest off-site residences are further than 1,000 feet from the cultivation area and other potential noise sources.

The proposed project currently includes 8,325 square feet of outdoor cultivation and one nursery. Cultivation areas include full-sun outdoor patches, and PVC hoophouses with exhaust fans and hand-drawn light-deprivation tarps. Artificial lighting was present in the nursery but was not being utilized at the time of the site visit. Exhaust fans and artificial lighting are powered by diesel generators.

NOISE ASSESSMENT

A site visit was conducted on September 19, 2020 to evaluate noise impacts associated with cannabis cultivation. The existing ambient noise level, and increased noise levels were measured using a Type-2 digital sound meter with an accuracy rating of ± 2 dBA. The decibel meter was mounted to a 4-foot tall tripod and set to record sound measurements for 15-minute durations at each monitoring point.

A log was created detailing activities that increased the ambient noise level. Activities that increased noise levels include but are not limited to conversation, wind gusts, traffic on Anderson Ford Road, and human activities on neighboring properties. The average ambient noise level without fans and generators running was 43.3 dBA.

Monitoring locations were established at noise sources, and at 100 feet, or the nearest property line, whichever was closer. Monitoring locations and average decibel readings are included in Table 1 below.

TABLE 1: MONITORING LOCATION DETAILS

Map ID	Location	Description	Average dBA at source	Average dBA at 100'
MP-1	(40.514078, -123.635279)	Water pump	54.1	49.6
MP-2	(40.513452, -123.635278)	Water pump	51.8	47.2
MP-3	(40.513733, -123.636394)	Generators & fans	58.3	43.7

Water pumps are used intermittently to move water between HDPE storage tanks. Pumps are run at energy saving levels, for up to one hour at a time, approximately one-two times a month during the growing season. Water pumps are not used at diversion sources or in riparian zones. When pumps are in use, noise levels at parcel boundaries do not exceed 60 dBA.

The project is powered by four diesel generators housed in a covered shed. There is one Honda 6500, two Honda 3000s, and one Honda 2000 onsite (see Table 2 for generator specs). Generators are run from dusk to dawn during the growing season. The back and sides of the shed provide noise shielding for the western parcel boundary with APN 208-271-003. The average decibel level at the parcel boundary was 43.7 dBA with fans and generators running. Noise readings were not assessed at the remaining parcel boundaries, as they are all located over 500 feet from the project area and will not be impacted by noise associated with cannabis operations.

TABLE 2: GENERATOR SPECS

Generator Make/Model	Manufacturer's Noise Rating (dBA)
Honda 6500	64-67
Honda 3000	50-57
Honda 2000	48-57

LIGHT ASSESSMENT

Artificial lighting is used in the beginning of the growing season in the nursery hoophouse to provide supplemental lighting for immature plants. String lighting and blackout tarping were present, but not in use at the time of the site visit. The cultivator was advised to shield the hoophouse with black out tarp so that no light is visible from neighboring properties between sunset and sunrise. The light source currently complies with the International Dark Sky Association standards for Lighting Zone 0 and Lighting Zone 1 and is designed to prevent light spillage onto neighboring properties resulting from backlight, uplight, or glare (BUG). Should the Humboldt County Planning Division receive complaints that the lighting is out of alignment or not complying with these standards, within ten (10) working days of receiving written notification that a complaint has been filed, the applicant shall submit written verification that the lights' shielding and alignment has been repaired, inspected and corrected as necessary.

CONCLUSION

Existing noise sources (exhaust fans, water pumps, and diesel generators) do not exceed 60 dBs at any property line. The baseline ambient noise level was measured at 43.4 dBA, and the average noise level with all noise sources running was 47.3 dBA at the parcel boundary nearest to cultivation operations. Artificial lighting in the nursery and black out mechanisms appear to comply with International Dark Sky Association Standards and will not result in uplight, backlight, or glare onto neighboring properties. Therefore, cultivation activities on APN 208-271-002 are anticipated to be in compliance with the Performance Standards set in Humboldt County's CMMLUO Ordinance (No. 2559).

PHOTOS



Photo 1: Nursery with string lighting and black out tarping.



Photo 2: Water pump and fuel setup for MP#1 and MP #2.



Photo 3: Generator shed at MP #3.

ATTACHMENT F

ACTIVITIES AND HOURS

Trichome Acres, LLC
APN 208-271-002

SCHEDULE OF ACTIVITIES

April: Site prep includes amending beds, building hoops, and removing winterization measures.

May: Hoop houses planted early May. Plants are regularly checked, watered, and fed.

June: Leafing and under branching, plants are regularly checked, watered, and fed. Trellis and staking placed around plants for support. Start plants in nursery for 2nd run.

July: Leafing and regular feeding, watering, and top dressing. Harvest and replant.

August: Plants are checked, watered, and fed.

September: Leafing and regular feeding, watering, and top dressing. Harvest late September.

October: Finish harvest activities. Cover soil with tarps or cover crop. Begin winterization measures.

November: Complete all winterization and erosion control measures.

HOURS OF OPERATION – 8AM TO 8PM

Activities associated with cultivation (watering, transplanting, and harvesting) generally occur during daylight hours (dawn to dusk).

The operation is staffed by up to up to two full-time employees and no seasonal employees.

STAFFING TABLE - PERSON HOURS BY MONTH

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Total person hours	0	0	0	160	240	320	320	320	320	240	160	0
Full time	0	0	0	1	2	2	2	2	2	2	1	0
Part time	0	0	0	0	0	0	0	0	0	0	0	0

Total Person Hours Per Year:	2,080
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NOTE: Person Hours may vary based on weather and/or unforeseen issues that may arise. Hours are based on median estimates.