

# Cannabis Relocation

Humboldt County APN 216-136-006

NCRWQCB WDID# 1B170774CHUM

County Application #12573

Humboldt County



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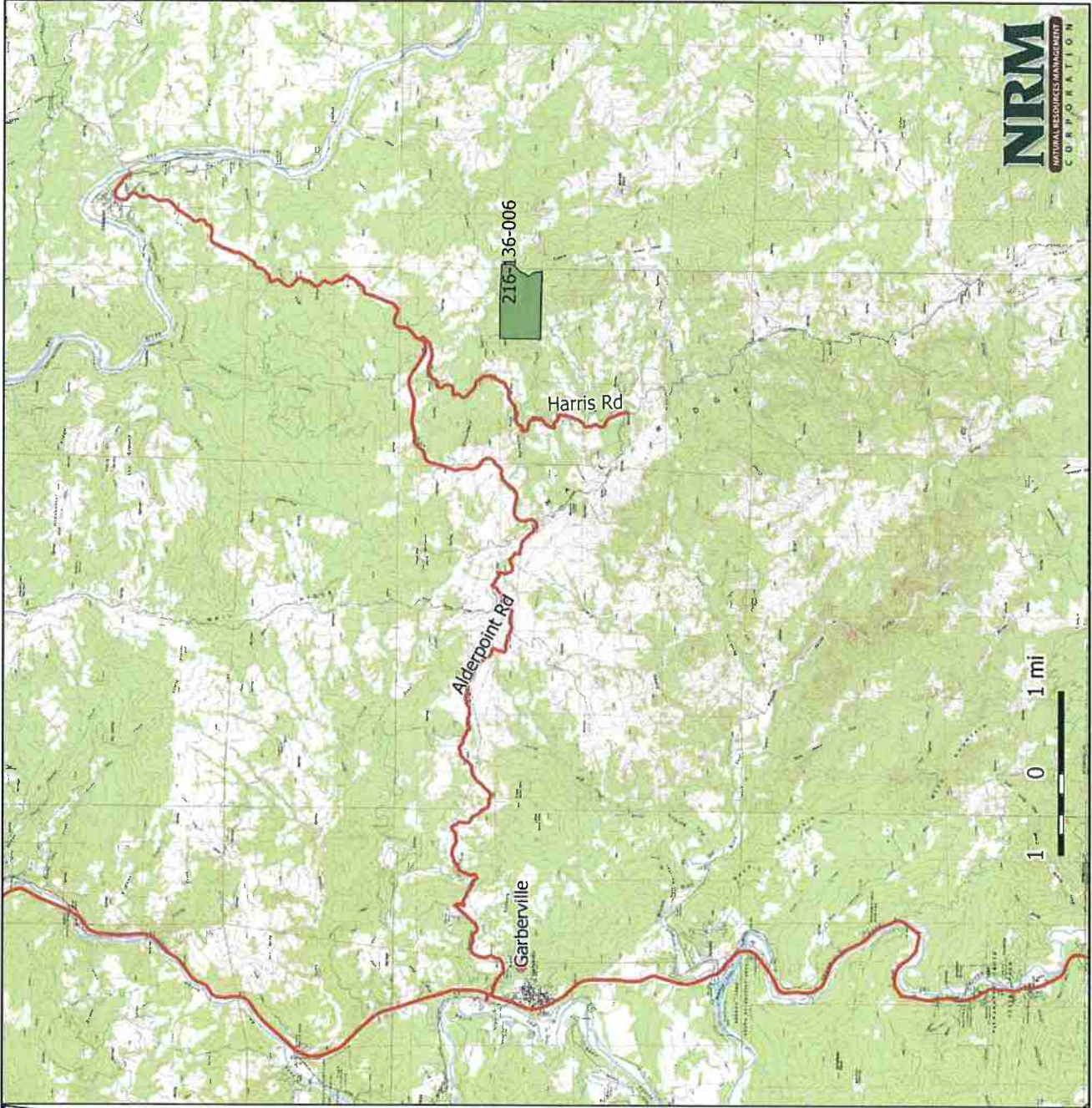


Figure 1. Vicinity of APN 216-136-006

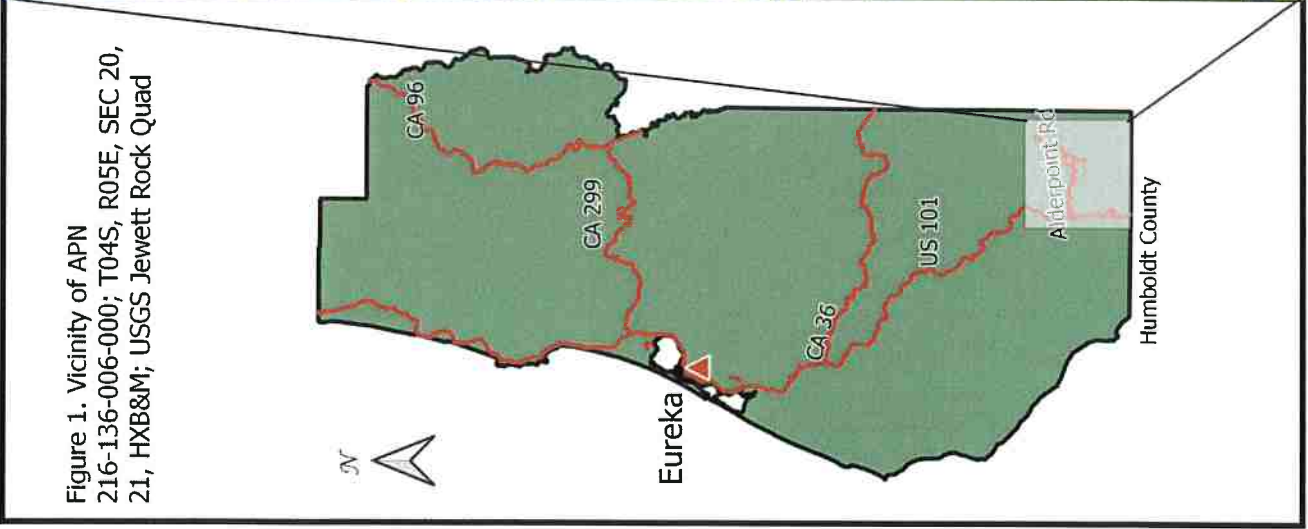


Figure 1. Vicinity of APN 216-136-006; T04S, R05E, SEC 20, 21, HXB&M; USGS Jewett Rock Quad

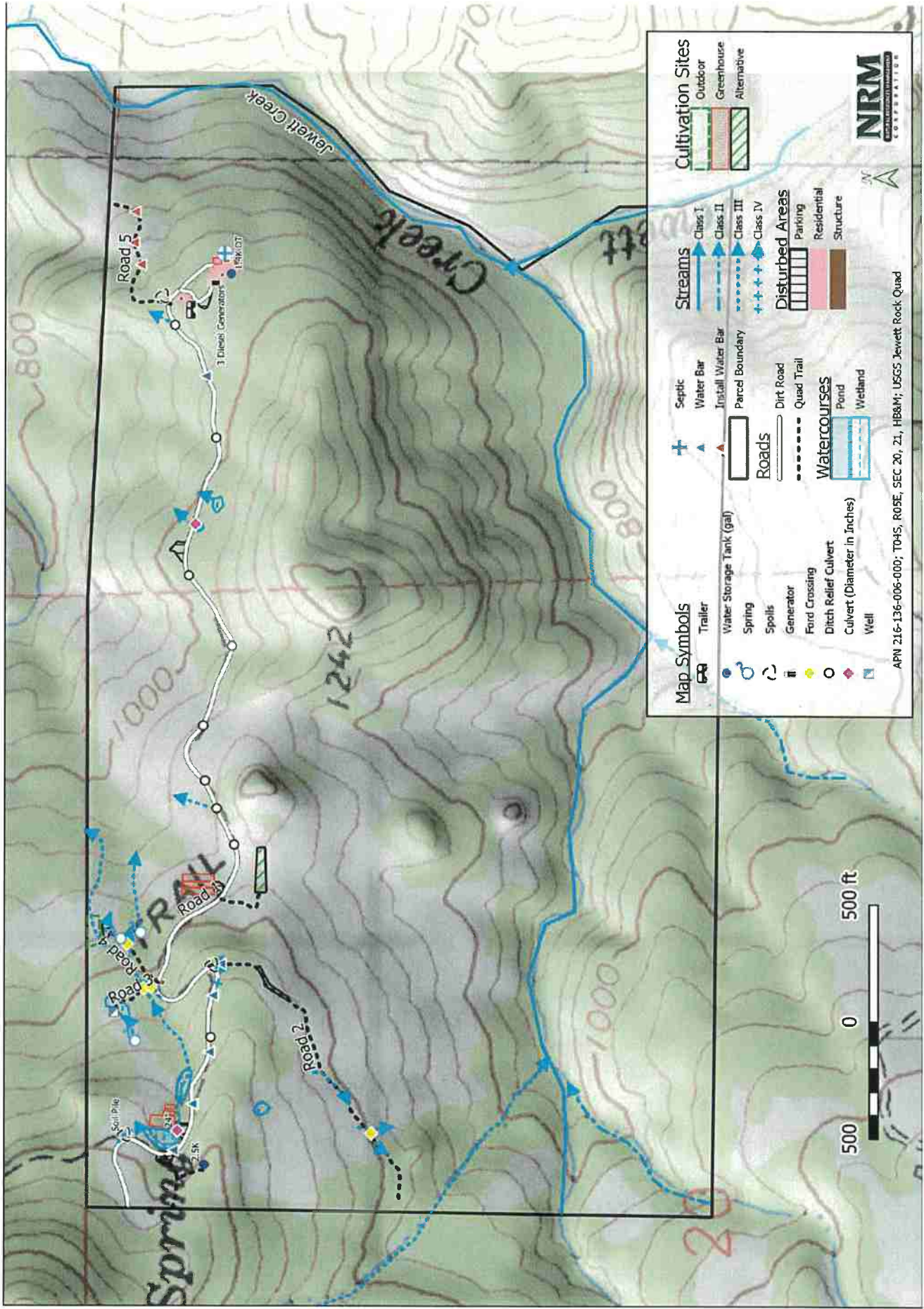


Figure 2. Overview of parcel showing site characteristics on USGS topographic map



Figure 3. Current layout of cultivation areas with relocation areas



## **Summary**

This document serves as the Relocation Report for Cannabis cultivation on APN 216-136-006. This document describes the environmental threats associated with the pre-existing cultivation sites as well as the environmentally superior relocation areas proposed for these sites. Staff from NRM visited the property on January 10, 2019 to inspect the pre-existing sites and evaluate potential relocation areas. Two appropriate relocation areas were found and are described below.

### **Pre-existing Cultivation Sites**

Three pre-existing cultivation sites were located on the parcel prior to January 1, 2016. They are referred to in this document as “West Cultivation,” “North Cultivation,” and “Main Cultivation” (Figure 3). West and North Cultivation are proposed to be removed from their current location and relocated to two separate relocation areas.

**West Cultivation:** Three hoop houses occupy a graded flat adjacent to the pond. The totality of West Cultivation lies within the riparian buffers of the pond and the outflow channel. Attachment A of the Water Board’s Cannabis Cultivation Policy states that perennial watercourses like this pond require a 150-foot setback, and an ephemeral Class III watercourses like the overflow channel require a 50-foot setback. A cultivation site this close to watercourses poses a threat to water quality via nutrient runoff, sediment discharge from vehicle traffic, and potential petroleum product leaks from vehicles. See Photos 1-4.

**North Cultivation:** North Cultivation is a full-term, outdoor garden that occupies a north facing slope of 15-20%. It appears that a small amount of grading occurred at this site, but the garden also occupies the natural slope. However, the garden sits atop a seasonal Class III channel, so during the wet months, water flows through the cultivation site. The threats to water quality at this site are similar to that of the West Cultivation, but nutrient runoff and sediment discharge are a higher risk because of the concentration of water interacting with the cultivation site. See Photos 5-11.

**Main Cultivation:** The Main Cultivation consists of three greenhouses occupying a graded flat in a north-east facing prairie close to the ridge. The flat is roughly 90-feet by 130-feet. It is accessed by Road 1. This site falls outside of stream buffers and is stable, so it will remain. See Photos 12 & 19.

### **Relocation Areas**

Two locations were found on the parcel that are environmentally superior and fall outside of riparian buffers (Figure 3). They are referred to in this document as “West Relocation” and “East Relocation.” A biological report will be conducted at these relocation areas and submitted to the County for review.

A site along a ridgeline south of West Cultivation was proposed by the landowner, but during the site inspection NRM staff found that it would require building an access road with grades up to 20% and require cutting between five and ten deciduous oak trees with diameter-at-breast-height (DBH) ranging from 20-30 inches (Oregon white oak and California black oak). An additional proposed area, on the south side of the same ridgeline would also need the steep access road and is within the 100-foot riparian protection buffer of a wetland.

The **West Relocation** is proposed to occupy a 200-foot reach of Road 2, near the intersection with Road 1. Although there were road runoff issues identified on Road 2, the area chosen for the West Relocation does not interact with or need access through the problem areas. The background slope of the proposed area was less than 25%, and the road bed provides a flat surface on which to cultivate, so no grading will need to occur to establish the site. Based on GIS measurements, West Relocation is roughly 2,740-square feet. An accurate onsite measurement should be made. See Photo 13.

Improvements needed to access this site include improving the drainage of the inboard ditch of Road 1 as it intersects Road 2. Currently, the ditch flow crosses Road 2, but it does not properly drain off the road. The treatment here is to improve the ditch and line it with rock. If the ditch becomes a hindrance to vehicle traffic, then installing a ditch relief culvert may be another option. See Photo 14-15.

The **East Relocation** is roughly 150-feet south of the parking area for the Main Cultivation, on an east-west ridge with a slope to the north of 20% and a slope to the south of 16%. The site is situated in a saddle with a maximum slope up to the west of 12%. The existing vegetation is primarily grasses and no trees would need to be cleared. See Photos 16-19.

No grading will be done at this site. Hoop houses will be installed into the natural ground with plants placed in soil pots. Based on GIS measurements, East Relocation is roughly 7,900-square feet. An accurate onsite measurement should be made.

The only environmental impacts here will be associated with viewshed.

## **Restoration**

### Permitting

The West Cultivation and North Cultivation both exist within the Streamside Management Area, defined by Humboldt County, so a Special Permit from the County must be obtained prior to infrastructure removal. Removing and restoring the North Cultivation will also require a Lake and Streambed Alteration Agreement (LSAA) from California Department of Fish and Wildlife (CDFW) as well as a 401 Permit from the California State Water Board. The East Cultivation may not require permits from CDFW and USACE.

### Removal Plan

All cultivation materials shall be removed from each site.

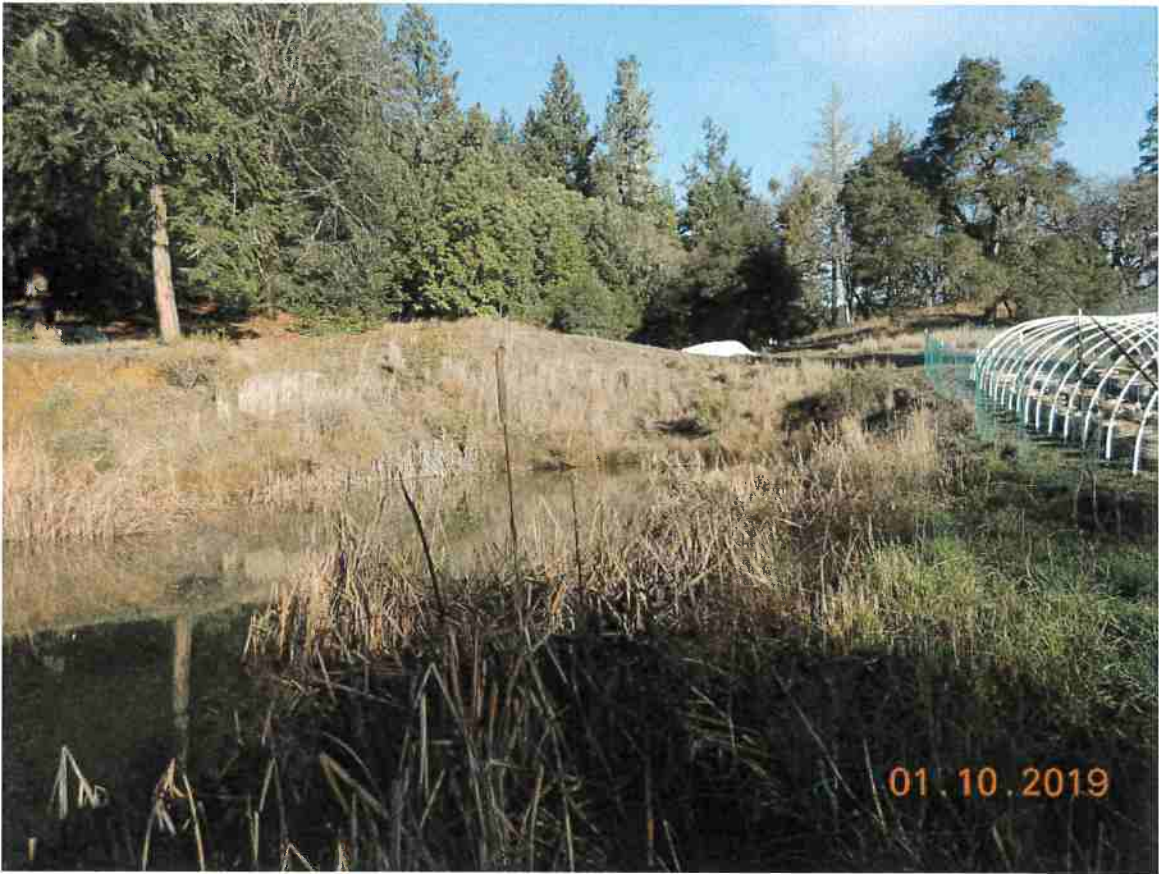
Restoration at **West Cultivation** will include removal of all cultivation materials including, but not limited to pots, soil, greenhouse materials, fencing, and other cultivation related wastes. The fill slopes of the graded flat were vegetated and measured at 40% and the site appeared stable, so NRM is not recommending the site to be recontoured. The site will be left to revegetate naturally.

Restoration at **North Cultivation** will also include removal of all cultivation materials including but not limited to pots, soil, fencing, and other cultivation related wastes. The area has been historically grassland, as seen from the USGS topographic quad map, so revegetation does not appear to be necessary. The site was built atop a seasonal drainage and displaced the natural flow of the stream, so the end goal should be restoring hydraulic function to the watercourse. NRM recommends against any

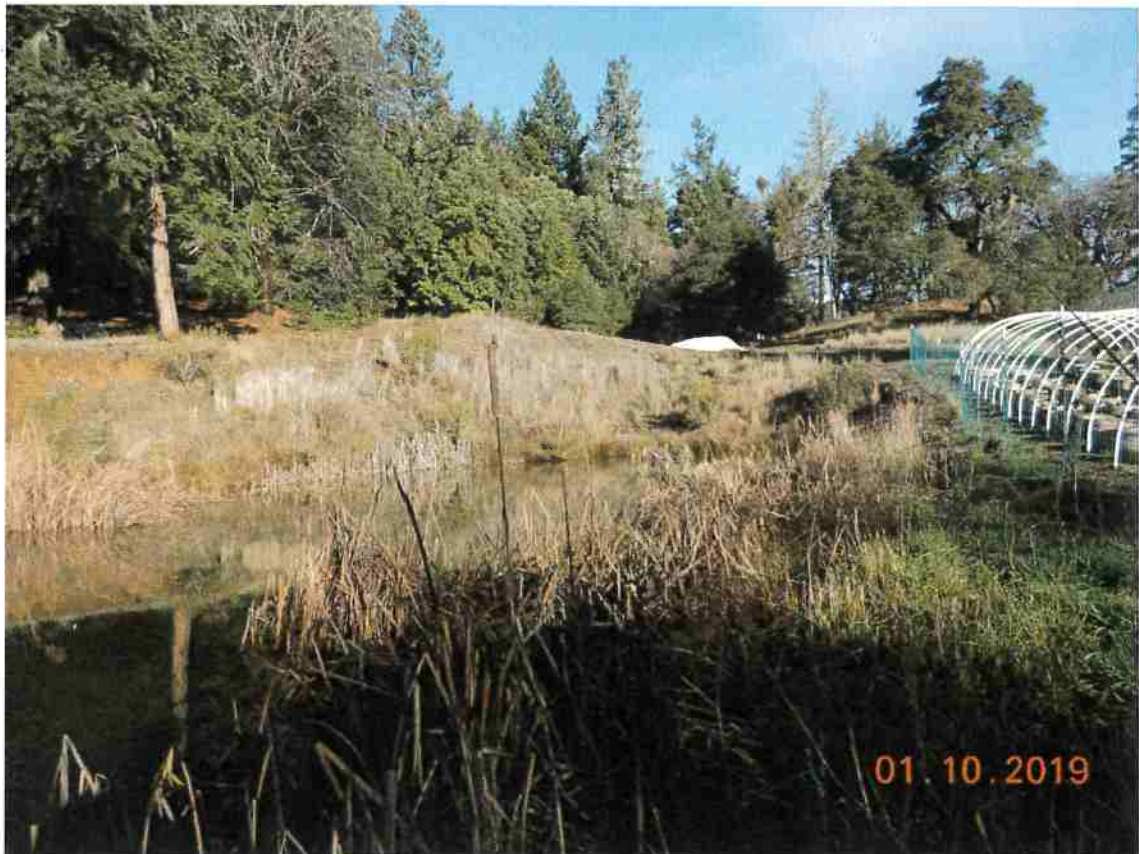
earthmoving at North Cultivation because of the instability of the parcel, as stated in the incomplete letter issued by Humboldt County on September 18, 2018. Attempting to reestablish the channel may cause more damage than leaving it alone. The site should be monitored after the restoration takes place.

Road 4, which accesses the North Cultivation, has small ford stream crossing which will be improved and included on the site's LSAA and 401 permits.

### **Site Photos**



*Photo 1. Looking north at pond at West Cultivation*



*Photo 2. Pond and greenhouse at West Cultivation*



*Photo 3. Looking east at lower greenhouses at West Cultivation*



*Photo 4. Looking upstream channel and vegetated fillslope at West Cultivation*



*Photo 5. Spring emerging and flowing onto road upslope of North Cultivation. 1/10/19*



*Photo 6. Southwest corner of North Cultivation. 1/10/19*



*Photo 7. North Cultivation. 1/10/19*



*Photo 8. Looking northeast at North Cultivation with standing water around pots. 1/10/19*



*Photo 9. Standing water in North Cultivation. 1/10/19*



*Photo 10. Looking downstream the incipient channel north and downslope of North Cultivation. 1/10/19*



*Photo 11. Lower slope of North Cultivation with water percolating through surface. 1/10/19*



*Photo 12. Main Cultivation*



*Photo 13. Looking downslope Road 2 at West Relocation*



*Photo 14. Looking upslope at Road 1 inboard ditch from intersection with Road 2*



*Photo 15. Looking down ditch where pooled water from Photo 14 should drain*



*Photo 16. Looking east at East Relocation. 10/23/18*



*Photo 17. Looking west at East Relocation. 10/23/18*



*Photo 18. Looking south from East Relocation. 10/23/18*



*Photo 19. Looking north from West Relocation at Main Cultivation. 10/23/18*



**Cultivation Plan**

**APN: 216-136-006**

The following plan describes the general operations for managing the existing 19,918 sq. ft. outdoor cultivation site, applied for with the county. In addition, a 4,464 sq. ft. planned Commercial Wholesale Nursery permit has been applied for with the county. The nursery currently provides plants for the on- site cultivation operation.

**1. Water Use**

The amount of water used for the cultivation of cannabis will vary throughout the year, from 50 gallons a day to 500+ per day in summer months. Details of the grower’s cultivation and water usage is outlined below.

Water used for cannabis cultivation is sourced from the property’s onsite well. The site has the capacity to store 24,250 gallons of water for irrigation. Irrigation is provided by an onsite well which pumps water to 24,250 gallon of polyethylene water tank storage. Gravity directs water flow from the irrigation tanks through the irrigation lines. Irrigation is dispersed by both drip irrigation and supplemented by manual watering to maximize water conservation.

During the beginning of the grow season, seedlings are occasionally watered as needed. Once fully planted, irrigation begins with plants watered periodically throughout the week. Careful timed irrigation, with immediate oversight, is also used to reduce the possibility of irrigation runoff.

The following provides an estimate of monthly irrigation use in gallons:

**1. a. Water USE by Month**

Month	Water in Gallons
January	700
February	700
March	1,500
April	3,000
May	7,200
June	8,560
July	10,800
August	11,400
September	11,400
October	10,800
November	700
December	700

**2. Watershed Protection**

The operations are located on a 275 acre parcel with multiple Class III watercourses running through it, along with a .046- acre, a .049 acre, and a .12 acre potential wetland area. While Cultivation Plan APN: 216-136-006 most cannabis cultivation occurs at least 50 feet away from these flows as required in the North Coast Regional Water Quality Control Board (NCRWQCB) specifications of standard conditions, during a recent wetland delineation evaluation potential issues were observed. Most notably, environmental experts recommended that relocation be initiated for cultivation areas adjacent to these wetlands to meet setback requirements, and that drainage infrastructure be improved to reduce the potential environmental impact on nearby sensitive areas.

While setback and infrastructure improvements are being planned, in order to support nearby watershed areas and local habitat, the site is managed day-to-day in compliance with standard conditions and follow best practices in accordance with guidelines provided by the NCRWQCB. These practices address erosion control and drainage features, spoils management, water storage and use, irrigation runoff, fertilizers and pesticides, and stream and wetland buffers when applicable.

The most active steps for this site include:

- ❖ Moderate road shaping and ditch-relief culverts used to optimize drainage
- ❖ Out-sloping maintained to ensure proper capture and capacity of seasonal flow
- ❖ Usage of vegetative ground cover and gravel for added sediment control
- ❖ Application of mulch to exposed soils to minimize erosion

The grower, designated as the “Discharger”, is currently enrolled in the NCRWQCB Waiver of Waste Discharge as a Tier II Discharger. Within the next few months they will begin enrollment in the state-wide General Order as required by the CA Department of Food & Agriculture for Commercial Cannabis cultivation. At that time a Site Management plan will be developed, submitted to the State Water Resources Control Board, and maintained on the property in accordance with newly established regulatory requirements.

**3. Power Source**

The site uses a Wacker 20kW, Honda EB 5000, Honda EU 2000, and Yamaha 1.8kW generators for electricity, when needed. Usage is on average 83kWh-251.2kWh per day from year round, depending on the need for and duration of nursery propagation, ventilation, and use of farming equipment. The smaller generators are rated by the manufacturer at maximum 59dB or lower, meeting perimeter noise restrictions required by environmental regulations. The larger generator rated at 69dB will be enclosed or housed away from parcel boundaries to prevent violation of noise restriction limits.

**4. Site Structures**

There are onsite shed structures used for propagation and processing (drying and curing). There are also sheds for tools, generator, fuel and amendments storage. During the season, the cultivation and propagation areas also include up to 19 greenhouses with dirt floors consisting of approximately 21,500 square feet.

**5. Nursery**

A 24'x36' structure provides home to the site's in-house "Mother room" for developing plant clones. Eight 10'x20' Greenhouses serve as the site's wholesale commercial nursery area supported by 2,000 sq. ft. of outdoor propagation areas.

**6. Roads**

The site is accessible through a main dirt road, secured by a locked gate. Near the site's cabin is ample space for parking 10 or more employee vehicles, as well as proper width for emergency vehicle turnouts.

**7. Materials Storage**

Currently, there are primarily natural fertilizers utilized in the cultivation process and include:

- ❖ Bone meal.
- ❖ Blood meal.
- ❖ Greensand.
- ❖ Neem seed.
- ❖ Dr. Earth all-purpose 4-4-4.
- ❖ Growmore Sea grow 16-16-16
- ❖ Growmore Sea grow 4-26-26

The primary pesticides used to control mites and powdery mildew are:

Product Name: Plant Therapy, Neem Oil

Active Ingredients: Soybean Oil, Isopropyl Alcohol, Citric Acid, Peppermint Oil,

Neem Oil

A dedicated secure and fully contained shed is used for the storage of all amendments. Materials are kept in their original containers with product labels in place and legible. Appropriate Safety Data Sheets (SDS) are kept onsite as a component of the cultivator's

WRPP.

Up to 50 gallons of gasoline, 100 gallons of propane, and 100 gallons of diesel fuel are stored within an onsite shed with secondary containment, along with a Spill Prevention, Countermeasures, and Cleanup (SPCC) kit. As a safety measure, kits provide a supply of clean-up materials in the event of accidents, and are kept within fuel storage areas.

## **8. Waste Management**

Plant waste is placed in a stable area, then covered for recycling and reuse. Unusable plant waste is composted. Other solid waste is stored in containers with covers and transported to the Eel River disposal, on a weekly basis; recyclables are taken monthly. Materials intended for reuse are stored in a clean and safe manner to be managed and reused as needed.

At all times, the site will allow access to safe drinking water, toilets and handwashing facilities that comply with applicable federal, state, and local laws. A 1200 gallon septic system and leech field exists onsite to safely manage human waste and prevent threats to local wildlife and water sources. As per the CCR, Title 8, § 3457, which addresses field sanitation standards, the cultivation site is required to provide access to waste facilities within one-quarter (1/4) mile or a five (5) minute walk, whichever is shorter.

Where the septic system is not within this accessibility threshold, a portable facility is provided in lieu of septic to support waste activities. This service has been obtained from B&B Portable Toilets and receipts for this service are on file. The standards for portable waste facilities will be followed for toilets, wastewater, and chemical tanks.

## **9. Cultivation Activities**

### **Jan-Feb:**

- ❖ Ensure all off-season water storage is complete
- ❖ Submit NCRWQCB enrollment report and fee
- ❖ Install and repair any infrastructure
- ❖ Perform initial site inspection
- ❖ Check water meters and record monthly usage
- ❖ Tend to Mother plants
- ❖ Begin cutting clones

### **Mar-Apr:**

- ❖ Submit soil samples for testing
- ❖ Purchase amendments for soil preparation based on test results
- ❖ Conduct and record inventory of amendments and verify proper storage
- ❖ Begin tilling soil and amendments to prepare for planting
- ❖ Continue cutting clones

- ❖ Transplant fledgling clones to 4" pots

**May-Jun:**

- ❖ Plant successful clones in greenhouses
- ❖ Transplant some 4" pots to 3 gallon pots
- ❖ Move mother plants outdoor
- ❖ Begin daily plant inspections
- ❖ Add nutrients as needed
- ❖ Complete vegetative growth stage
- ❖ Begin covering light deprivation greenhouses

**Jul-Aug:**

- ❖ Transplant emerging plants from 3 gallon to 100 gallon smart pots for full season plants
- ❖ Top and prune plants periodically
- ❖ Trellis plants for stability
- ❖ Conduct regular site inspections and make repairs as needed
- ❖ Harvest first round crop
- ❖ Dry Crop
- ❖ Curing
- ❖ Package and storage
- ❖ Re-amend soil
- ❖ Transplant Round 2 crop to greenhouse beds
- ❖ Cover greenhouses for Round 2 light deprivation
- ❖ Replace Mother plants with new clones

**Sep-Oct:**

- ❖ Harvest by hand 2nd round of light deprivation
- ❖ Dry and cure crop
- ❖ Package and store
- ❖ Harvest by hand full season plants
- ❖ Remove and recycle plant waste following harvest
- ❖ Move emerging Mother plants to indoor nursery

**Nov-Dec:**

- ❖ Develop and Maintain Mother plants for following season

**10. Soil Management**

Following the harvest, reusable soil is properly contained and covered for tilling in the next season. Unusable soil is properly kept on site, prior to hauling to a local waste facility.

**11. Cultivation Cycles**

The site plans to produce two light deprivation crop cycles and one full term seasonal crop. In April, planting will begin with placement of fledgling clones in the nursery area. During the vegetative state plants are upgraded to larger pots, until ready for the final placement. The first round of plants are then transferred to a greenhouse and covered for light deprivation. First round harvest usually occurs mid-July to mid-August. Greenhouses are refilled after the first round harvest and addition full term plants are placed outdoors. The second harvest is late September - mid October, starting with light deprivation production and then full season harvest. Harvest times can always vary depending on environmental factors including weather, pests, and plant strains.

**12. Plant Management**

During the cultivation cycles plants are inspected daily. Irrigation is monitored and adjusted based on impact of various factors, mainly heat and precipitation. Once plants are placed into soil beds, they are carefully maintained with periodic topping and pruning until ready to harvest.

**13. Processing Practices**

**The farm plans to utilize offsite state/county licensed Processing Facilities as they become available in our area.**

After harvest, the cannabis is taken into sheds by the grower where it is dried, machine trimmed and packaged. All work surfaces and equipment are maintained in clean and safe conditions. Protocols are strictly followed to prevent the spread of mold and fungus. Once the final cannabis product is packaged it is stored in a secure location.

**14. Site Improvements**

In October of 2018, Natural Resource Management performed a wetland delineation survey of the property. As a result, the environmental experts concluded the need for relocation of two cultivation areas in order to meet NCRWQCB requirements and protect potential wetland areas. During the inspection more appropriate cultivation areas were assessed and identified for relocation.

It was recommended that 10,000 sq. ft. of northern most outdoor cultivation be relocated directly south to greenhouses in a flat land area near the property's main road. In addition,

3,300 sq. ft. of cultivation near the site's rain catchment pond should be relocated south-east of the pond, away from potential wetlands and Class III waterways. Once the county permit is approved, removal, relocation, and remediation will begin and is expected to be completed within the year. Each relocation area will be the same size as the prior areas when completed. In addition, site water flow and drainage improvements were also identified, and will be included in the site's upcoming SWRCB Site Management Plan. Additional permitting and agency approvals will be obtained prior to initiating all recommended improvements.

**15. Staffing**

The site is currently not employing part-time or full-time employees. The site is maintained by the permit holder, his family and a contracted company. Labor is generally performed between the hours of 7am and 7pm. The farm site is accessed via carpooling as needed. The permit holder also has access to an onsite cabin with one bedroom and a full bathroom, if someone needs to stay overnight.

**16. Security Measures**

A number of security measures have been established on the site. They include:

- ❖ Road access is restricted by a locked gate of heavy steel construction with a steel
- ❖ Combination lock.
- ❖ There is 24/7 presence onsite throughout the cultivation season.
- ❖ All buildings are equipped with locks

**17. Health and Safety**

When employees are hired this site will be operated as an "agricultural employer" as defined by the Alatorre-Zenovich-Dunlap-Berman Agricultural Labor Relations Act of 1975 (Part 3.5 commencing with Section 1140) of Division 2 of the Labor Code, and comply with all applicable federal, state, and local laws and regulations governing California Agricultural Employers. At the first establishment of 20 or more employees, the firm will sign and enact a Labor Peace Agreement and allow upon written request, all bona fide labor organizations access at reasonable times to areas in which the farm's employees work, for the purpose of meeting with employees to discuss their right to representation, employment rights under state law, and terms and conditions of employment.

With regards to harvesting, any onsite operations will ensure that any employees handling cannabis for processing will have access to facemasks and gloves in good operable condition, and will be required to wash hands sufficiently when handling cannabis or use gloves.

Prior to retaining employees, the company will initiate an Injury and Illness Prevention Program (IIPP) Plan which will be posted to include the following safety protocols:

- ❖ Emergency action plan and fire prevention plan
- ❖ Emergency contacts, including medical services

- ❖ Use of personal protective equipment
- ❖ Use of proper equipment and materials handling,
- ❖ Heat illness prevention,
- ❖ Employee accident reporting policies and logs,
- ❖ Communication of hazards,
- ❖ Safety Data Sheets for amendments and chemicals used onsite, and
- ❖ Employee training logs.

**18. International Dark Sky Standards**

Any greenhouse or propagation area with supplemental lighting will be properly maintained to avoid being visible from any neighboring property between sunset and sunrise. The site will comply with International Dark Sky Association standards for Lighting Zone 0, and prevent light spillage which may impact local wildlife. Any and all complaints received in writing regarding light spillage will be corrected within 10 business days from the date of receipt.