10558

Site Management Plan

Humboldt County APN 522-025-006-000
SWRCB WDID# 1_12CC416285

Submitted to:
State Water Resources Control Board -
North Coast Region
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NRM
NATURAL RESOURCES MANAGEMENT
CORPORATION

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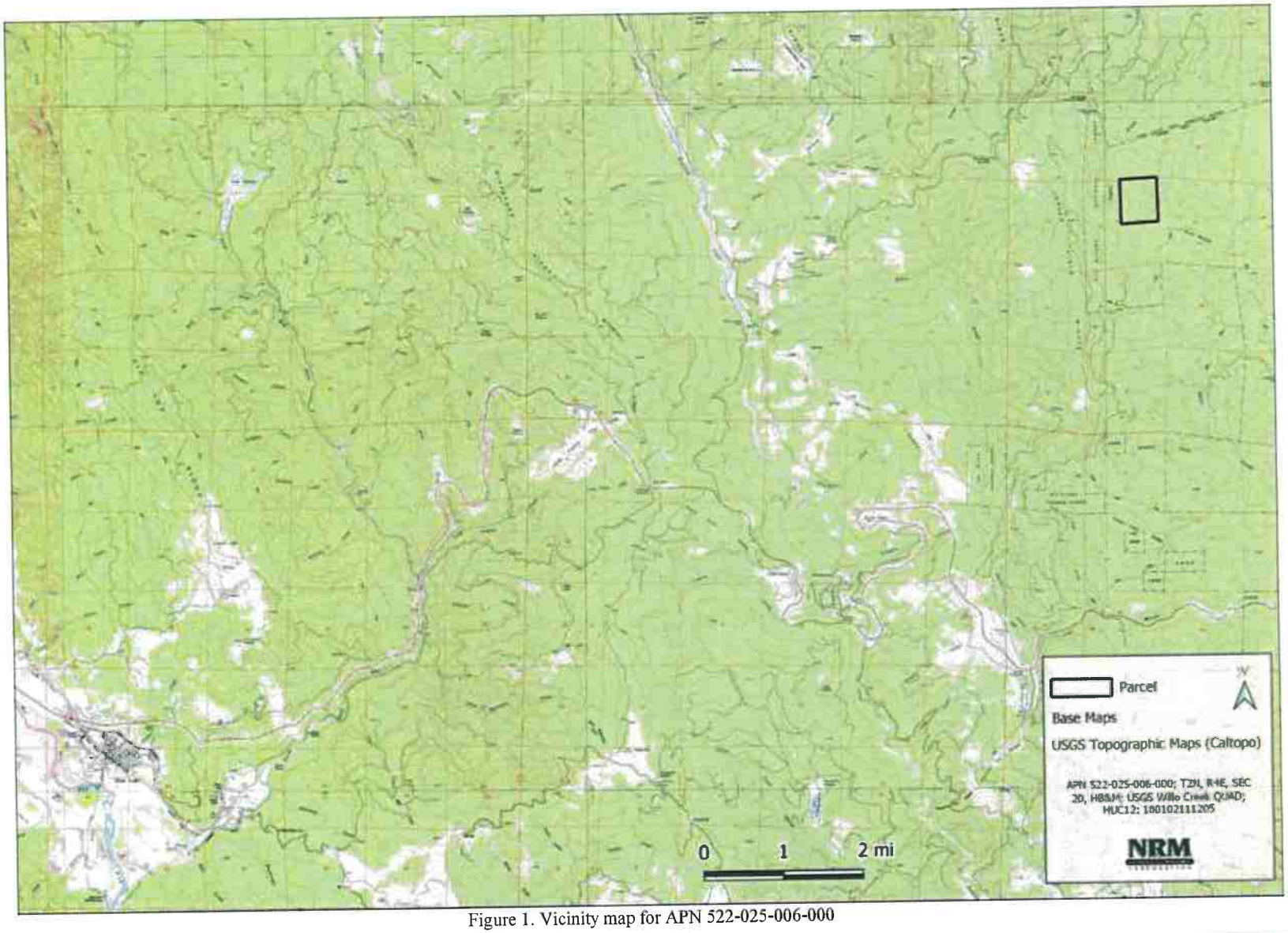

Figure 1. Vicinity map for APN 522-025-006-000

Site Management Plan

Introduction

This document serves as the Site Management Plan for APN 522-025-006-000 pursuant to Order No. WQ 2017-0023-DWQ and as amended by Order No. WQ 2019-001-DWQ and No.2019-0007. On October 17, 2017, the State Water Board adopted the Cannabis Cultivation Policy - Principles and Guidelines for Cannabis Cultivation (*Cannabis Policy*) and General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities (*Cannabis General Order)*, Order No. WQ 2017-0023-DWQ. One of the requirements of Order No. WQ 2017-0023-DWQ is that all Tier 1 and Tier 2 Dischargers shall submit and implement a Site Management Plan (Plan) that describes how the Discharger is implementing the best practical treatment or control (BPTC) measures listed in Attachment A. Summary

Summary

This enrollment is for a Tier 1, low risk site that consists of one parcel in central Humboldt County; the parcel is located approximately 5.25 miles south west of Hoopa, between Redwood Creek and Trinity River. The western half of the property, where the cultivation infrastructure is located has mostly western facing aspects (HUC-12 watershed is Supply Creek). The parcel has an average elevation of 3,600 feet (maximum 3,800 feet; minimum 3,200 feet). The parcel's natural environment is mixed conifer forest; the western half is zoned TP-Z.

Water for irrigation is diverted from the spring located in the middle of the southern half of the property; this water is diverted into the existing 32,500 gallons of storage, then transferred to the cultivation areas for use. Domestic water is also sourced from the spring and diverted for direct use. This spring diversion is covered by LSAA 1600-2016-0103-R1, domestic water right S025410, and SIUR H506356.

There are five culvert crossing on this parcel, three of which are on road sections associated with the Cannabis cultivation. While all crossings are fully functioning, two are undersized. The cultivation is over 400 feet away from the nearest waterway, which is a Class II.

There is a total of 14,540 square feet of current Cannabis cultivation on this parcel. The square footage is divided between two cultivation areas, both of which are composed of light deprivation hoop houses.

The main access road to the cannabis cultivation areas and the drying/storage buildings is a well-established rocked road. In total, the sites use approximately 5,867 feet of road for Cannabis. These roads were evaluated in 2019 by NRM and no immediate issues were identified; DRCs are being maintained, culverts are clear and functioning, and inboard ditches are clear.

The total disturbance for the sites is +/- 170,720 square feet (Figure 5). This number includes:
- Roads established and maintained as cannabis related access- estimated at an approximate average width of 10-feet = 58,670 square feet
- Three cleared areas that hold the cultivation/propagation areas, surrounding active workspaces, and all storage/processing buildings and tents = northern clearing is 72,550 square feet (the eastern third of this was cleared under a less than 3-acre timber conversion in 2015), south eastern clearing is 26,484 square feet, and south western clearing is 13,016 square feet = 112,020 square feet

1. Sediment Discharge BPTC Measures

1.1. Site Characteristics

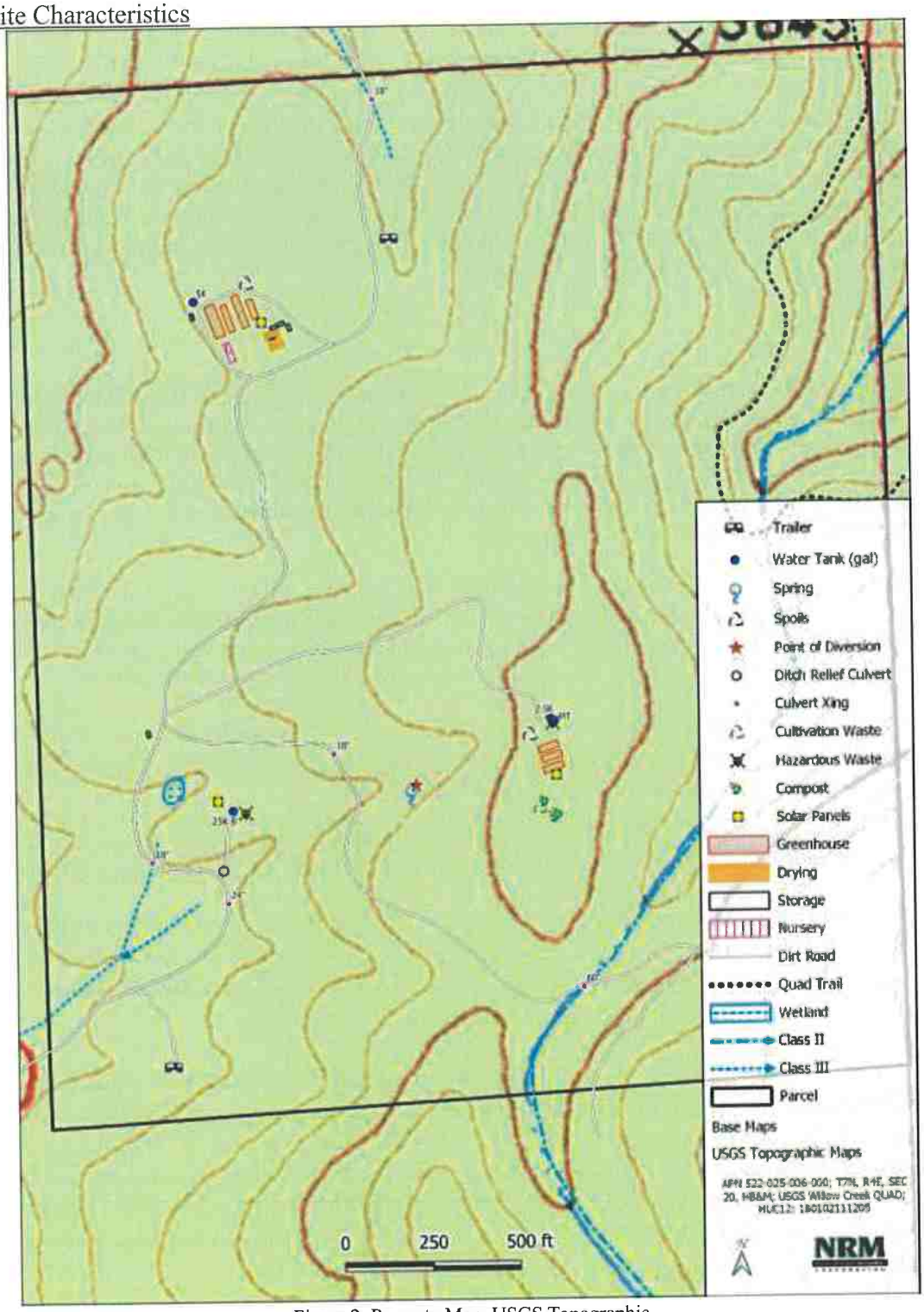

Figure 2. Property Map, USGS Topographic

Figure 3. Property Map (North), Google Satellite

Figure 4. Property Map (South), Google Satellite

Cultivation Areas

The cultivator has two Cannabis cultivation sites on APN 522-025-006-000; both consist solely of light deprivation hoop houses. The total area currently being cultivated is 13,340 square feet. There is an average of 500 plants in each hoop house and the cultivation season runs from the beginning of April through November. The plant starts are transplanted in to the main hoop houses in early May and there are two runs each season. Cultivation waste is composted on property; each of the cultivation areas have their own designated composting areas.

The northern cultivation area is located in a clearing with a total disturbance of 72,550 square feet; this areas is composed of four different tiered flat; all cut slopes have been stabilized and the entire area is well rocked. This northern garden is made up of four hoop houses (7,340 sqft) and one nursery hoop house (2,400 sqft). The hoops use in-ground trenches and smart pot cultivation methods, while the plants in the nursery are grown in soil bags. There are also two permitted drying building in this northern clearing (20-feet by 30-feet and 20-feet by 40-feet); all processing and packing is done off property. The eastern third of this clearing was constructed in 2015 under a less than 3-acre conversion. Currently there is no plan to construct any infrastructure in this section, but the cultivator hopes to be granted an additional 10,000 square feet of cultivation from Humboldt County. If this happens, the new cultivation will be placed in the conversion clearing.

The southern cultivation area is located in a clearing with a total disturbance of 26,484 square feet and is one single graded flat. This garden is made up of three 20-foot by 60-foot hoop houses (3,600 sqft) that also use smart pot cultivation methods. This clearing is not quite as well rocked at the northern clearing. In order to mitigate the ground disturbance associated with this flat, all bare ground around the hoop houses will be rocked.

Even though the graded ground at both cultivation areas has not yet re-vegetated, there is a no visible evidence of runoff from irrigation or winter weather. The nearest watercourse to any cultivation in a Class II located 420 feet to the east of the eastern garden. While there is no potential for irrigation run-off, NRM identified on their last site visit multiple piles of discarded soils and cultivation waste from previous seasons at all three of the clearings. Since then, the cultivator has cleared and placed in the proper containment all of the spoils and cultivation waste that had been in the south western clearing near the bladder. The cultivator plans to continue to address all uncontained spoils and cultivation in a timely manner. The piles of spoils will be collected and condensed into as few piles as possible. The cultivator will amend and re-use as much as possible, any left-over will be taken to a licensed facility and disposed of. After all the piles are collected, and waiting to be addressed, either straw waddle and tarps will be applied, or the soil will be placed into plastic totes for containment. The discarded cultivation waste will also be gathered to be either composted on property or disposed of at Wes Green Landscaping, in Arcata, CA.

Corrective Actions – BPTCs: #120, 121

- Cannabis cultivators shall only dispose or reuse spent growth in a manner that prevents discharge of soil and residual nutrients and chemicals to the riparian setback or waters of the state
- Spent growth medium shall be covered with plastic sheeting or stored in water tight dumpsters prior to proper disposal or reuse
- Spent growth medium should be disposed of at an authorized landfill or other disposal site in compliance with state and local laws, ordinances, and regulations
- Proper reuse of spent growth medium may include incorporation into garden beds or spreading on a stable surface and revegetating the surface with native plants

- Cannabis cultivators shall contain and regularly remove all debris and trash associated with cannabis cultivation activities from the cannabis cultivation site
- Cannabis cultivators shall not allow litter, plastic, or similar debris to enter the riparian setback or waters of the state

Project Operations - BPTCs: #8,9,11, 13,36, 37, 57, 58, 59, 60, 61, 62, 97, 112, 113, 114

- Cultivator will actively prevent erosion of previously disturbed and newly disturbed areas (cultivation areas) by seed casting, live planting or hydroseeding with native vegetation.
- Cultivator will prevent the spread or introduction of exotic plant species by cleaning equipment and monitoring and control of exotic species.

Monitoring: BPTCs: #14, 59

- Cannabis cultivators shall monitor erosion control and sediment capture measures during and after each storm event that produces .5 inches in one day or 1 inch in 7 days.
- Cannabis cultivators will regularly check for surface water runoff from irrigation. If surface water runoff is observed, the cultivator will reduce the amount of water being used and if there are any indications of soil erosion, take steps to repair the eroded surface.
- Cultivator will cover all spent growth medium to prevent polluted runoff. Cultivator will rake escaped soil into pile and secure wattle and tarp. See Appendix B for BMP examples.

1.1.2 Roads

There are approximately 9,567 feet of vehicle accessible dirt roads on APN 522-025-006-000 (Figure 5), there is also an isolated quad trail visible on the Google Satellite images, but the landowner has never accessed this part of the property and it has not had any use in recent years. In total, 5,867 feet of the roads on property are associated with Cannabis cultivation.

Cannabis associated roads include roads that access cultivation sites, water tanks and wells, spoils or compost piles, and storage and drying facilities. It is estimated that all dirt roads on this property that are associated with cultivation have an average width of 10-feet. All of these private roadways, other than their stream crossings, are consistent with the guidelines presented in the Handbook for Forest, Ranch and Rural Roads (PWA, 2015).

Road A - Road A is the main access road for the property, entering at the southwest property corner and traveling through to the parcel to the north and there is 3,670 feet of Road A on the property. Road A accesses the northern cultivation area and has three functioning culvert crossing on it. The northern stretch of road A which runs north from the northern cultivation area has a short stretch that exceeds 20% between the trailer and the northernmost watercourse crossing. The steep segment is approximately 200 feet long and is not used for cannabis cultivation. It is occasionally used by neighbors to access their property to the north. This stretch of road should be monitored closely to ensure that excessive sediment will not be discharged into the Class III watercourse below.

Road B - Road B is a 270-foot long spur road off of Road A. This road is not associated with cultivation activities and leads to a spot historically used for residential purposes, the RV at this site is no longer in use.

Road C – Road C is the second spur road off of Road A and is 157 feet long. The ditch relief culvert at the base of this road is well constructed and functioning property. This road ends at the southern-most clearing that holds the 25,000-gallon bladder.

Road D - Road D is 2,044 feet long in total, but only the first 704 feet accessible from Road A is associated with Cannabis. This section of Road D leads to the spring box used for irrigation, and past this

point, the road is only used to monitor the culvert on the Class II watercourse crossing in the southeast corner of the property.

Road E - Road E is 1,436 feet long and leads to the eastern cultivation area. This road is in good condition with no sign of erosion

Road F: Road F is a 720 foot long looped road that circles the northern cultivation area and connects to Road A.

Road G: Road G is 1,270 feet long and not associated with cannabis. This road is rarely used, and when it is, it's by the owners of the neighboring parcels to the south and the east. There is a historic landslide associated with this road that delivered to the Class II waterway below it. While most of this area has begun to naturally revegetate, NRM is still recommending to seed and straw any bare ground associated with landslide that is located in the riparian buffer

Corrective Actions - BPTCs: #8, 9

- The cannabis cultivator shall use appropriate erosion control measures to minimize erosion of disturbed areas
- The cannabis cultivator shall not plant or seed noxious weeds. Prohibited plant species include those identified in the California Invasive Pest Plant Council's database

Project Operations - BPTCs: # #3, 4, 17, 21, 22

- Rock Roads as necessary to prevent erosion

Monitoring: BPTCs: #14, 26, 30, 54

- Cannabis cultivators shall monitor erosion control measures during and after each storm event that produces at least 0.5 in/day or 1.0 inch/7 days of precipitation, and repair or replace, as needed, ineffective erosion control measures immediately
- Cannabis cultivators shall inspect roads to ensure that access roads are not allowed to develop or show evidence of significant surface rutting or gullying. Cannabis cultivators shall use water bars and rolling dips as designed by professionals to minimize access road surface erosion and dissipate runoff.
- Cannabis cultivators shall regularly inspect ditch-relief culverts and clear them of any debris or sediment.
- Cannabis cultivators shall inspect the condition of access roads, drainage features, and watercourse crossings prior to the onset of fall and winter precipitation and following storm events that produce at least 0.5in/day or 1 inch in 7 days.

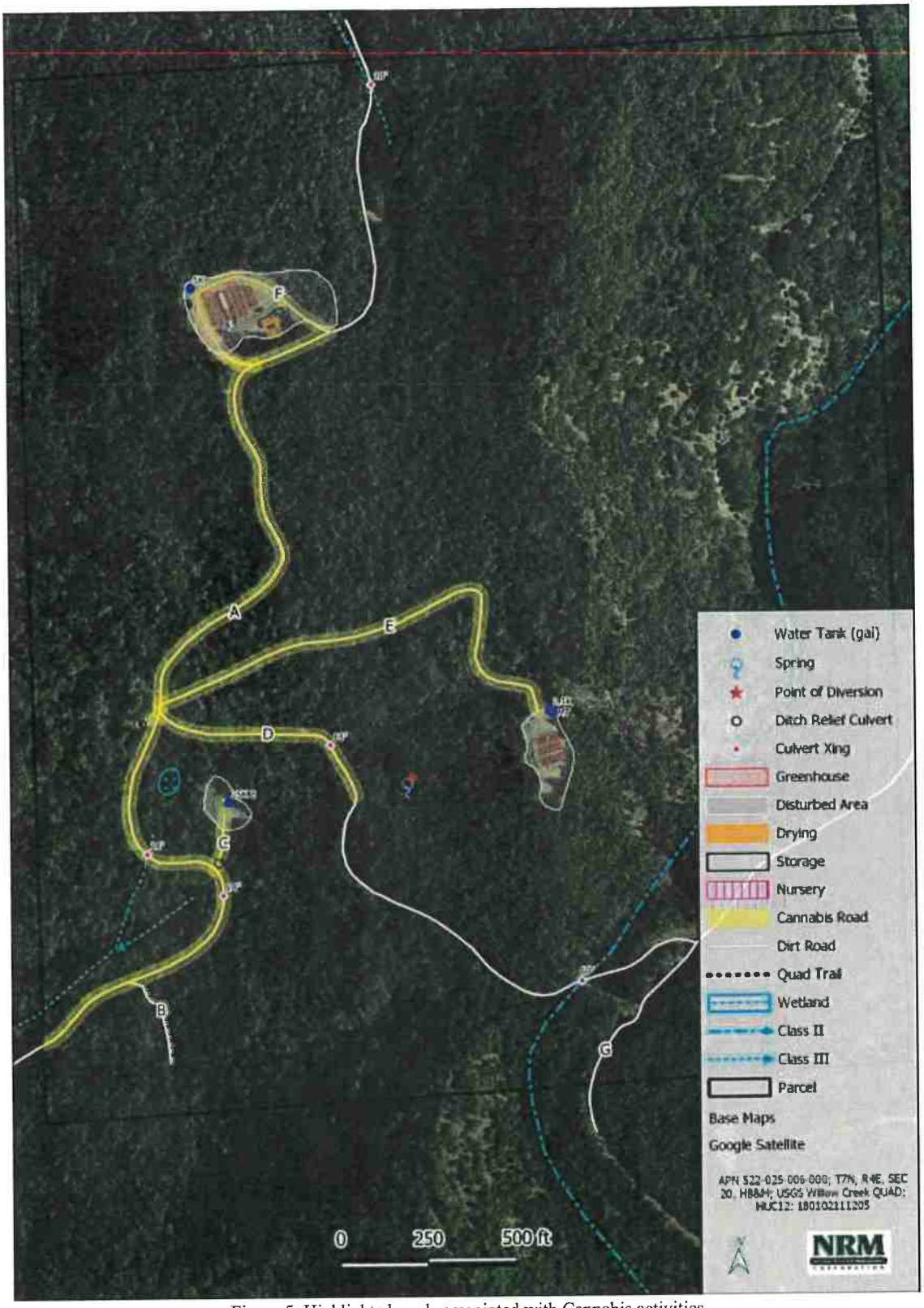

Figure 5. Highlighted roads associated with Cannabis activities

1.1.3 Watercourse Crossings

There are three culverted watercourse crossings on this parcel, along with two additional culvert crossings associated with swales. These watercourse crossings were first surveyed by Timberland Resource Company in 2016 when LSAA (1600-2016-0103-R1) was applied for. The three watercourse crossings were inspected again by NRM in 2019. All three of the watercourse crossings inspected appear to be fully functional, but two appear to be undersized. The 60-inch CMP on the Class II watercourse appears to be sized correctly using the magnitude and frequency method of calculating discharge and a standard culvert size nomograph.

The northernmost watercourse crossing is an 18-inch CMP with a 40-foot long half round downspout on a Class III watercourse. This culvert is not set at the natural channel grade and has an elevated plugging potential. Calculations made using the rational method and standard culvert nomograph indicate a 36-inch culvert would be appropriate to accommodate the predicted 100-year interval peak discharge event. Since the fill is shallow at this location, a vented rock ford might be a preferable alternative. While this crossing is located on Road A, is it located north of the reach of road used for cannabis production.

The other Class III watercourse crossing also has an 18-inch culvert, there are no visible issues with this culvert, although the crossing lacks a critical dip. Calculations made using the rational method and standard culvert nomograph indicate a 24-inch culvert would be appropriate to accommodate the predicted 100-year interval peak discharge event. Since the fill is shallow at this location, a vented rock ford might be a preferable alternative. This crossing is located on Road A, on a reach of road used for cannabis production.

A new LSAA, along with a 401 CWA permit, will be applied for in order to address the work that needs to be done to these two stream crossings.

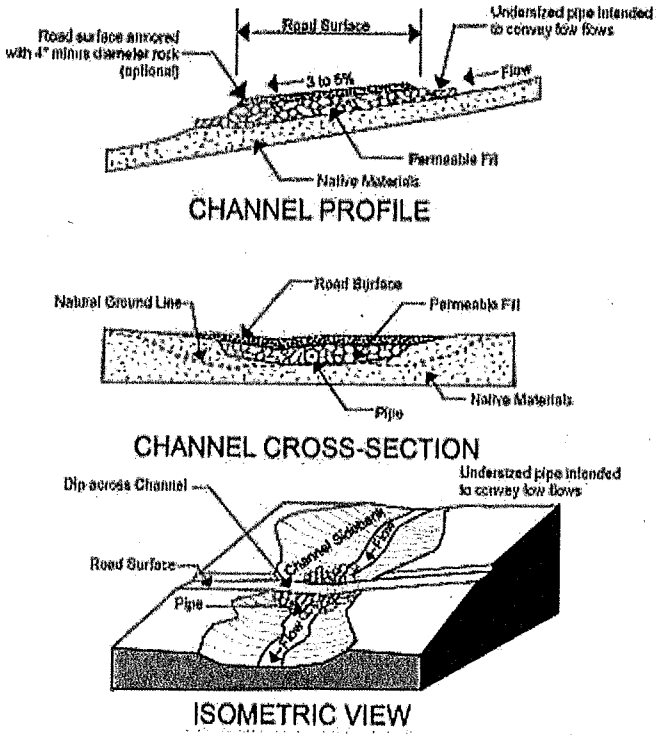

Figure 6. Typical vented ford crossing diagrams

Table 1. Rational Method for 100-year flood flow (A < 200 acres)

		$T_c = 60((11.9 \times L^3)/H)^{0.385}$			$Q_{100} = CIA$			
No.	Crossing	Channel length (to top of basin) (mi) L	Elevation difference (ft) H	Concentra-tion time (min) Tc	Runoff coefficient C	100-year Return-Period Precipitation (in/hr) I*	Area (acres) A	100-yr flood flow (cfs) Q100
1	*18-inch with 40 nfoot downspout*	0.27	360	*4*	0.3	5.2	19.57	*20.9*
2	*60" on Class II*	0.27	480	*3*	0.3	5.2	88.02	*137.3*
3	*18" on Class III*	0.27	320	*4*	0.3	5.2	5.41	*8.4*

Corrective Actions – BPTCs: #31, 38,

- All permanent watercourse crossings that are constructed or reconstructed are capable of accommodating the estimated 100-year flood flow
- Obtain all applicable permits and approvals prior to doing any work in or around waterbodies or within the riparian setbacks

Project Operations - BPTCs: #30, 31, 38 - 56

Monitoring – BPTCs: #51

- Cannabis cultivators shall conduct regular inspection and maintenance of stream crossings to ensure crossings are not blocked by debris

1.1.3.1 Legacy Discharge Issues

There is a landslide that has delivered to a Class II tributary to Supply Creek in the past. There is still some residual bare earth within the riparian buffer as a result. The source of the landslide is a road through the property that is not used by the cultivators and is labeled Road G in Figure 5; this road was not evaluated by NRM. The landslide is several years old judging by the revegetation naturally occurring along its path. A review of Google Earth's historical imagery indicates the landslide occurred between June of 1993 and August of 1998. The point of delivery is approximately 50 feet to the right of the southernmost watercourse crossing. The landslide is approximately 65 feet wide at its widest point and approximately 150 feet long. Because the landslide occurred so long ago and revegetation is already occurring naturally, the only erosion control measure recommended is for the landowner to seed and straw any remaining bare earth within the riparian buffer.

1.2. Sediment Erosion Prevention and Sediment Capture

Table 2. Possible sediment discharge features and BPTC Schedule

Item #	Possible Sediment Discharge feature	BPTC Schedule
1	Replace Undersized Culvert with a Vented Ford	1 day of work before the onset of Winter, 2023
2	Replace Undersized Culvert with a Vented Ford	1 day of work before the onset of Winter, 2023
3	Stabilization of Eastern Cultivation Flat	1 day of work before the onset of Winter 2020

1 & 2. Replace Undersized Culvert with a Vented Ford

The two 18" culvert crossings on Class III waterways are both undersized for the 100-year flood flow event. Since the fill is shallow at both of these locations, a vented rock ford might be a preferable alternative.

Prevention of erosion and sediment transport:

- rock shall be sized to withstand the range of flow events that occur at the crossing
- rock shall be maintained at the rock ford to completely cover the channel bed and bank surfaces to minimize soil compaction, rutting, and erosion
- Rock must extend on either side of the ford up to the break in slope
- Any exposed soils will be seeded with non-invasive grass and covered by a minimum of 2" of weed-free straw mulch before the onset of rain.
- All excavated fill spoils shall be spread along and compacted into a section of native surfaced road or stored in a stable location outside of riparian buffers.

- All excavated and relocated fill material shall be tractor contoured (to drain water) and tractor compacted to effectively incorporate and stabilize loose material and stabilized with erosion control measures as necessary to prevent the delivery of sediment to any watercourses.

Capture and control of sediment:

- Broadcast native grass seed on bare ground.
- Spread hay or straw at the rate of 2 tons/acres.

Maintenance of erosion control and sediment capture measures:

- Site monitoring prior and after significant storm events.

3. Stabilization of Eastern Cultivation Flat

The eastern flat used for cultivation has not been rocked and there is no natural revegetation occurring. On NRM's last site visit, there was some pooling of water observed along the eastern edge; this flat would benefit from the application of rock/gravel or a combination of seed and straw.

Prevention of erosion and sediment transport:

- Rock or gravel will be placed around the three hoop houses on the eastern flat associate with cultivation
- As an immediate treatment, the area can be seeded and strawed

Capture and control of sediment:

- Broadcast native grass seed on bare ground.
- Spread hay or straw at the rate of 2 tons/acres.

Maintenance of erosion control and sediment capture measures:

- Site monitoring prior and after significant storm events.

Any future grading or road work will follow the requirements listed out in Section II of Attachment A of the General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities (Order WQ 2017-0023-DWQ), constructed by the State Water Resources Control Board.

2. Fertilizer, Pesticide, Herbicide, and Rodenticide BPTC Measures

Table 3. 2019 Total Fertilizer Use

Nitrogen Ratio	Phosphorus Ratio	Total Pounds Used	Total N	Total P
2	4	12000	240	480
3	6	18300	549	1098
			789	1578

The cannabis cultivation at this site includes the use of fertilizers/amendments and Plant Therapy, along with predator bugs as needed for combating unwanted insects. The cultivator does not use any rodenticides. The cultivator does not receive deliveries of any of these products at the site, but picks up fertilizers and amendments from the suppliers when needed. All fertilizers are kept in the metal shipping containers near the northern hoop houses. Any fertilizer products are used in their entirety by the end of each season are disposed of at Humboldt Sanitation, while left-over products will be stored in the shipping container during the winter season to be used the following year.

A Spill Kit is kept on site to address chemical spills, all chemicals are kept in secondary containment. The basic components of the cultivator's spill kit include:

Emergency phone numbers (California Office of Emergency Services: 1-800-852-7550)
Labels and MSDSs of all fertilizers, pesticides and rodenticides on hand
A Copy of the Spill Plan
Personal Protective Equipment: rubber gloves, footwear, apron, goggles, face shield, respirator
Heavy plastic bags for material storage
10 lbs. of absorbent materials (cat litter, vermiculite, sorbant pads, etc.)
Shovel, broom or hand broom, dustpan
Heavy duty detergent, chlorine bleach, and water for final clean up
Sturdy plastic container that closes tightly and will hold the largest quantity of pesticide on hand
First aid supplies

(From USDA FS Herbicide Spill Plan https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd497003.pdf)

Corrective Actions – There are no corrective actions.
Project Operations - BPTCs: # 104,105,106, 108, 110
Monitoring – BPTCs: # 111, 113

- Cannabis cultivators shall monitor the weather forecast and will not apply agricultural chemical within 48hrs of a predicted rainfall event of .25 inches or greater with a probability greater than 50 percent.
- Cannabis cultivators will record their fertilizer and amendment application and submit the total nitrogen and phosphorus use numbers annually to the State Water Quality and Control Board

3. Petroleum Product BPTC Measures

The only petroleum products used on property are gasoline and petroleum. The gas is used for the generators and water pump for the bladder, which is picked up as needed by the cultivator at an estimated use of 10 gallons per week during the cultivation season. Propane is used for personal use (cooking/showers) and not associated with cultivation. All petroleum products are stored in the metal shipping container near the northern hoop houses, gasoline is stored in plastic storage totes. All fuel containers are reusable, so no disposal is required. During NRM's last site visit there were a couple generators and pumps lacking proper secondary containment; this will be completed before May 1, 2020.

While there is gasoline used to power a couple pumps and generators, 85% of the power used for Cannabis cultivation is sourced from the solar panels spread throughout the property.

Corrective Actions – BPTCs: # 73, 118

- Cultivator will provide secondary containment for petroleum products (in shed that meets the standards established by the EPA and upheld by the state of California. See Appendix C
- Fuel powered pumps (for fertilizer tank pump and well pump) and their power source will have suitable containment to ensure any spills or leaks do not enter surface water or groundwater. The pumps will have sufficient overhead cover to prevent exposure of equipment to precipitation. See Appendix C.

Project Operations - BPTCs: # 7, 104, 105,106, 108, 109, 110, 118
Monitoring – BPTCs: #

- Cannabis cultivators will monitor the condition of their vehicles and machinery and inspect for leaks before refueling.

4. Trash/Refuse and Domestic Wastewater BPTC Measures

4.1 Trash and Refuse

Trash/refuse generated at this site consist of general household waste (cardboard, glass, metals, plastics, organics, etc.) as well as garden specific waste. The organic garden waste (stems, roots, and leaves) are composted onsite; a couple of the larger piles left over from past seasons will be taken to Wes Green Landscaping in Arcata, CA to expedite the compliance of waste disposal on property. The other cannabis related waste produced at this site include, but are not limited to, oil filters, wiring, cardboard, and plastic packaging (cellophane and recyclable HDPE containers). The hazardous materials, nonhazardous trash, and recyclables are separated into containers (standard, Rubbermaid garbage cans with lids) and stored onsite until taken to Humboldt Sanitation in McKinleyville, CA; trips are made approximately two times each month during the cultivation season.

4.2 Employees, Visitors, Residents

There are two full-time employees associated with this project. There will also be the occasional seasonal staff hired during the cultivation season, but there will never be more than five staff members on property. While there is a residential RV on property, none of the staff members stay overnight. Along with the staff, there will also be occasional visits from consultants or contractors

4.2.1 Domestic Wastewater

The landowner is aiming to have a permitted septic system constructed and installed on property by the 2022 cultivation season. In the meantime, there is a rented B&B on property, which is hauled off property as soon as the season is over each year.

Corrective Actions – BPTCs: #120, 121

- Cannabis cultivators shall only dispose or reuse spent growth in a manner that prevents discharge of soil and residual nutrients and chemicals to the riparian setback or waters of the state
- Spent growth medium shall be covered with plastic sheeting or stored in water tight dumpsters prior to proper disposal or reuse
- Spent growth medium should be disposed of at an authorized landfill or other disposal site in compliance with state and local laws, ordinances, and regulations
- Proper reuse of spent growth medium may include incorporation into garden beds or spreading on a stable surface and revegetating the surface with native plants
- Cannabis cultivators shall contain and regularly remove all debris and trash associated with cannabis cultivation activities from the cannabis cultivation site
- Cannabis cultivators shall not allow litter, plastic, or similar debris to enter the riparian setback or waters of the state

Project Operations/ Monitoring - BPTCs: # 122, 123

5. Winterization BPTC Measures

At the end of the growing season, prior to winter rains, the follow steps will be taken to prepare the site for winter:

- Soil used in cultivation will be treated different depending on the cultivation method. Soil in trenches are planted with a cover crop, while the soil in both the smart pots and the soil bags are piled up and covered with a tarp and surrounded by straw waddle.

- Any bare soil on the fill slopes on the landing will be covered with straw 2 to 3 inches thick and secured with a tackifier or describe any revegetation activities that will occur either at the beginning or end of the precipitation season. Cannabis cultivators shall apply erosion repair and control measures to the bare ground (e.g., cultivation area, access paths, etc.) to prevent discharge of sediment to waters of the state.
- Cannabis stems and root balls will be either composted on property or hauled to Wes Green
- All nutrients, fuels, and all chemicals will be placed in the secure metal shipping container
- All cultivation trash and debris will be hauled off property to Humboldt Sanitation
- Cannabis cultivators shall maintain all culverts, drop inlets, trash racks and similar devices to ensure they are not blocked by debris or sediment. The outflow of culverts shall be inspected to ensure erosion is not undermining the culvert. Culverts shall be inspected prior to the onset of fall and winter precipitation and following precipitation events that produce at least 0.5 inch/day or 1.0 inch/7 days of precipitation to determine if maintenance or cleaning is required.
- Cannabis cultivators shall not operate heavy equipment of any kind at the cannabis cultivation site during the winter period, unless authorized for emergency for emergency repairs contained in an enforcement order issued by the State Water Board, Regional Water Board, or other agency having jurisdiction

If any BPTC measure cannot be completed before the onset of winter period, the landowner will contact the Regional Water Board to establish a compliance schedule.

As stated by the Water Code section 13267 the landowner will complete and submit technical monitoring reports monthly until winterization measures have been implemented.

6. Water Use and Storage BPTC Measures

Water for both irrigation and domestic use is diverted from the spring box accessed from Road D, this diversion was first used in 2015. This spring diversion is covered by LSAA 1600-2016-0103-R1, domestic water right S025410, and SIUR H506356. The long term plan is to have a well drilled to replace the spring as the source of irrigation water. The well permits were pulled in 2017 and the landowner is aiming to have it drilled in 2021 by Watson Well.

Currently, water for irrigation is diverted from the spring box, gravity fed to the water storage tanks and pumped to the bladder. From the storage, water is gravity fed to the southern cultivation area and pumped up to the northern cultivation area. All plants are watered using a drip irrigation system. There is a total of 32,500 gallons of water storage on the property, this is made up of a 25,000 gallon bladder and three 2,500- gallon hard sided tanks. The bladder, located in the south western clearing, needs to have proper secondary containment constructed around it. The cultivator will also be installing water meters before June 1, 2020.

There was a total of 5,050 gallon of water used for the 2019 cultivation season. This usage amount is approximately ¼ of a normal season's use. The cultivator estimates that a typical season will use closer to 20,000 – 25,000 gallons of water. The in-ground trench cultivation method is incredibly effective in reducing the amount of water required. The cultivator explains that this is why the total water use numbers for this property are much lower than other projects that have similar cultivation square footages.

Table 4. 2019 Monthly Irrigation Water Use (gal.)

Irrigation	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
To Storage	0	0	0	35,000	0	0	0	0	0	0	0	0
From Storage	0	0	0	500	600	600	750	850	750	500	500	0

Table 5. 2019 Monthly Domestic Water Usage (gal.)

Domestic	January	February	March	April	May	June	July	August	September	October	November	December
Direct Diversion	0	0	0	1500	1500	1500	1500	1500	1500	1500	1500	0

For continued future compliance, water meters will be used to quantify both direct diversion and diversion to storage. A photo of the meter reading will be taken weekly to document water use.

The diversionary period set forth by the Water Board is between **Nov. 1 and March 31** of each year. To find out if it is OK to divert, simply click on this link:
https://www.waterboards.ca.gov/water_issues/programs/cannabis/online_mapping_tool.html

- Zoom in to your parcel (you can type in street address if that applies to you)
- Note: You will have to zoom to "street level" for the pop up to work.
- Click on your diversion (don't worry if it doesn't show up on the map)
- Read the pop up: it will either say "DIVERSION AUTHORIZED" or "DIVERSION NOT AUTHORIZED"

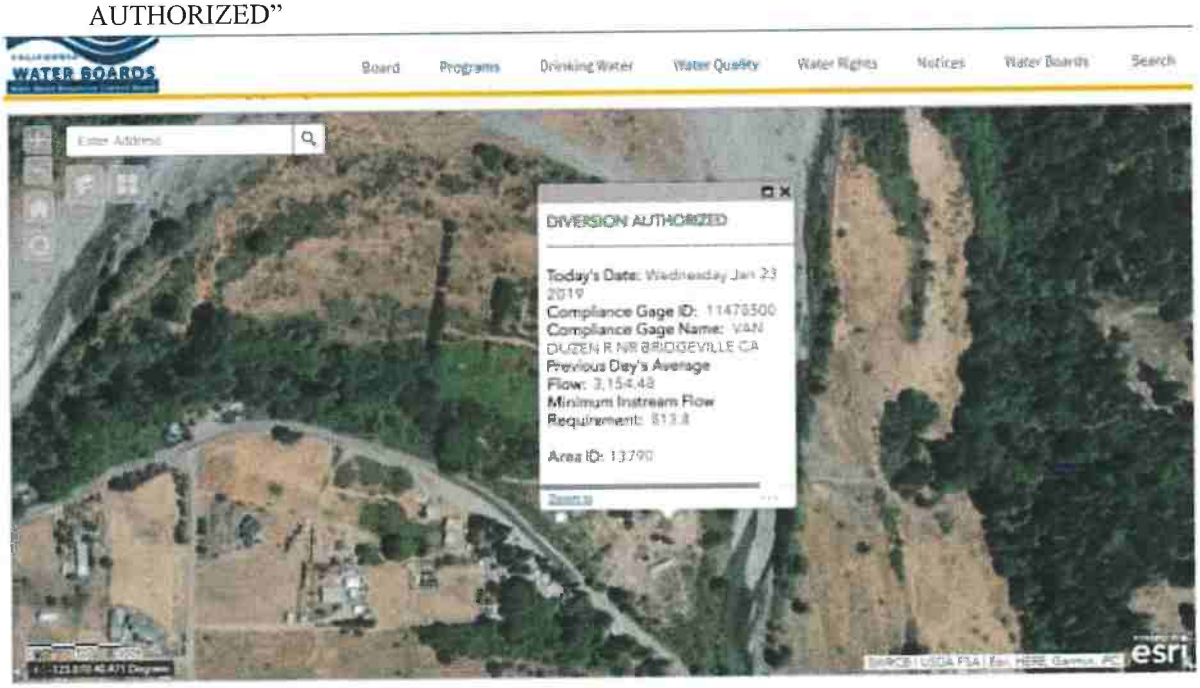

Figure 7. Example of compliance gage authorization

Corrective Actions – BPTCs: #83, 89

- For continued future compliance, water meters will be used to quantify both direct diversion and diversion to storage. A photo of the meter reading will be taken weekly to document water use.

- The bladder is safely contained within a secondary containment system with sufficient capacity to capture 110 percent of a bladder's maximum possible contents in the event of bladder failure

Project Operations - BPTCs: #65, 66, 67, 69,72, 77, 86, 88, 90, 91, 92, 9394, 95, 97, 98, 101, 102, 103
Monitoring – BPTCs: #84,85, 96, 99, 100
Cannabis cultivators shall regularly inspect irrigations delivery systems for leaks.

7. Summary of Corrective Actions and Monitoring

7.1 Corrective Actions

1. All old piles of soils and cultivation waste to be disposed of
   - Cultivation waste to composted or taken to Wes Green
   - Prioritize all piles located in riparian buffers
   - Consolidate piles, tarp and straw waddle
   - Address any soils/waste created each year
     - To be completed before October 1, 2020
2. Upgrade/discontinue stream crossings
   - Apply for LSAA & 401
   - Follow all BTPCs put forward by SWRCB and CDFW
     - To be completed before October 1, 2022
3. Apply secondary containment to all petroleum products
   - This includes generators (when in use and when in storage for winter)
     - To be completed before May 1, 2020
4. Install water meters to record weekly irrigation water usage
     - To be completed before June 1, 2020
5. Seed & straw any bare ground associated with landslide that is located in riparian buffer.
     - To be completed before October 1, 2020
6. Upgrade both 18" culvert crossing to be able to accommodate the 100-year flood flow
     - To be completed before the onset of 2023 rainy season
7. Stabilize eastern cultivation flat with rock, or seed & straw any bare ground
     - To be completed before October 1, 2020

7.2 Monitoring

1. Sediment Discharge BPTC Measures
   - Cultivator will perform a periodic inspection of water delivery system for leaks and immediate repair any leaks.
   - All ditch relief culverts will be inspected periodically for blockage and cleared.
   - Cultivator will inspect and repair erosion prevention and control systems after every storm that produces .5 inches of rain in one day or 1 inch in 7 days.

2. Fertilizer, Pesticide, Herbicide, and Rodenticide Amendments (reported annually to State Water Board)
   - Cannabis cultivators shall monitor the weather forecast and will not apply agricultural chemical within 48hrs of a predicted rainfall event of .25 inches or greater with a probability greater than 50 percent.
   - Cannabis cultivators will record (monthly) their fertilizer and amendment use.

3. Petroleum Products
   - Cannabis cultivators will monitor the condition of their vehicles and machinery and inspect for leaks before refueling.

4. Trash/Refuse and Domestic Waste
   - Cultivator will maintain a riparian setback free of refuse and contaminants (plastic, litter, construction debris, creosote treated wood, spoils, etc).

5. Winterization BPTC (see section 6, page 24)

6. Water Use (water numbers reported annually to CDFW and State Water Board)
   - Daily documentation of water gage compliance (permission to divert) during surface water diversion period **Nov. 1 and March 31**
   - Daily documentation of water use (photos of continuous read meters)

Appendix A. Photo Documentation – All photos taken October 24, 2019

Photo 1. Spring box

Photo 2. 20,000 gallon bladder

Photo 3. Pump needing secondary containment

Photo 4. Solar panel near bladder

Photo 5. Soils/cultivation waste in southern clearing (BEFORE)


Photo 6. Soils/cultivation waste in southern clearing (AFTER – March 2020)

Photo 7. Eastern cultivation flat

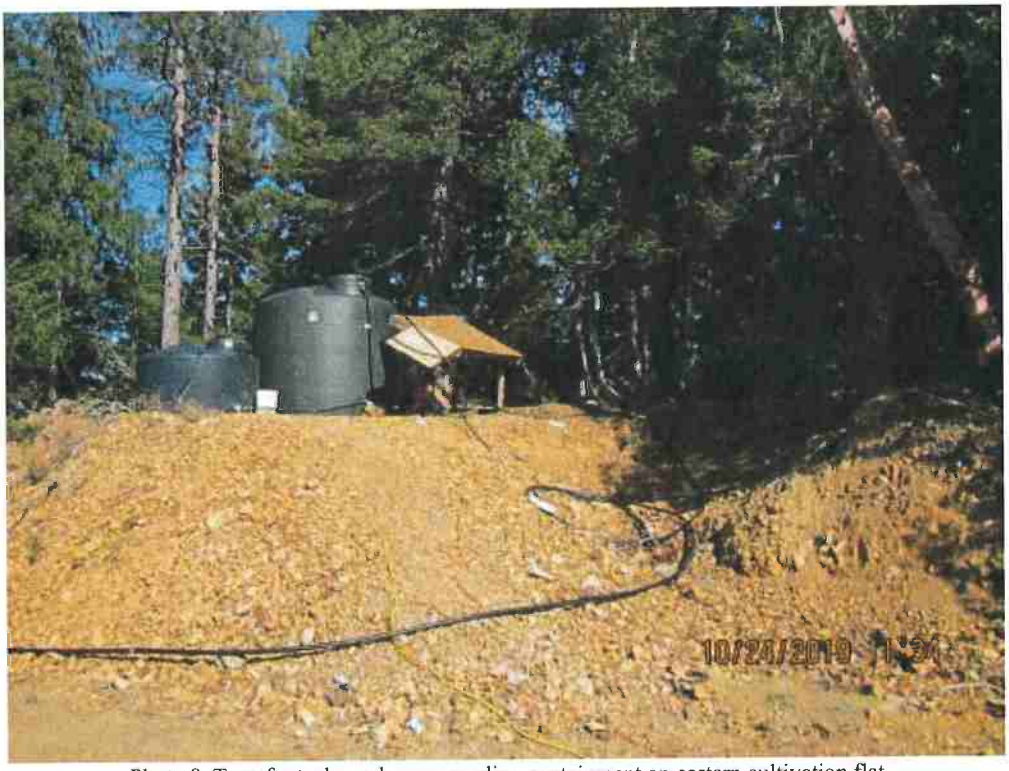

Photo 8. Transfer tanks and pump needing containment on eastern cultivation flat

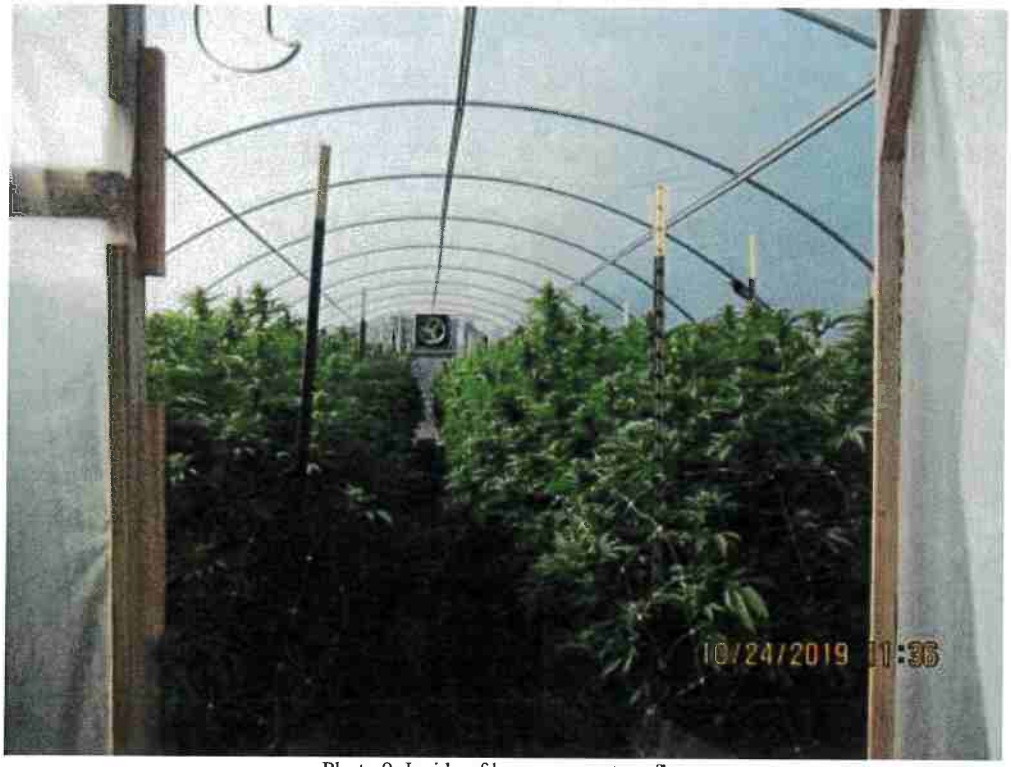

Photo 9. Inside of hoops on eastern flat

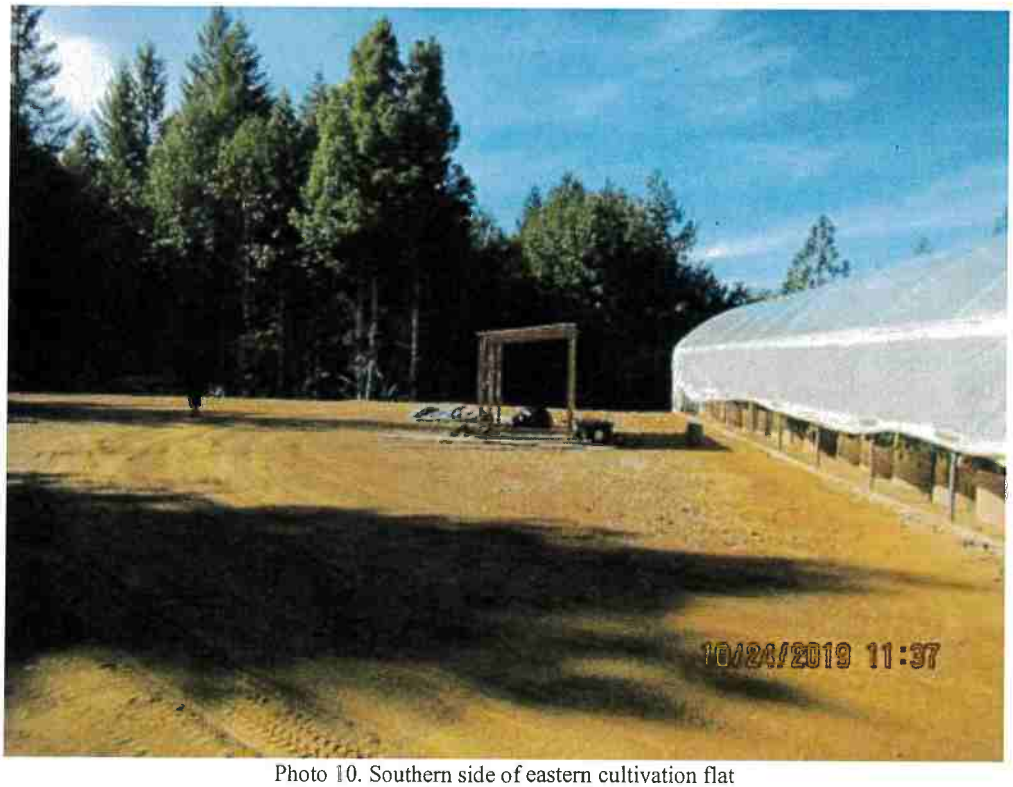

Photo 10. Southern side of eastern cultivation flat

Photo 11. Cultivation waste on southern edge of eastern cultivation flat

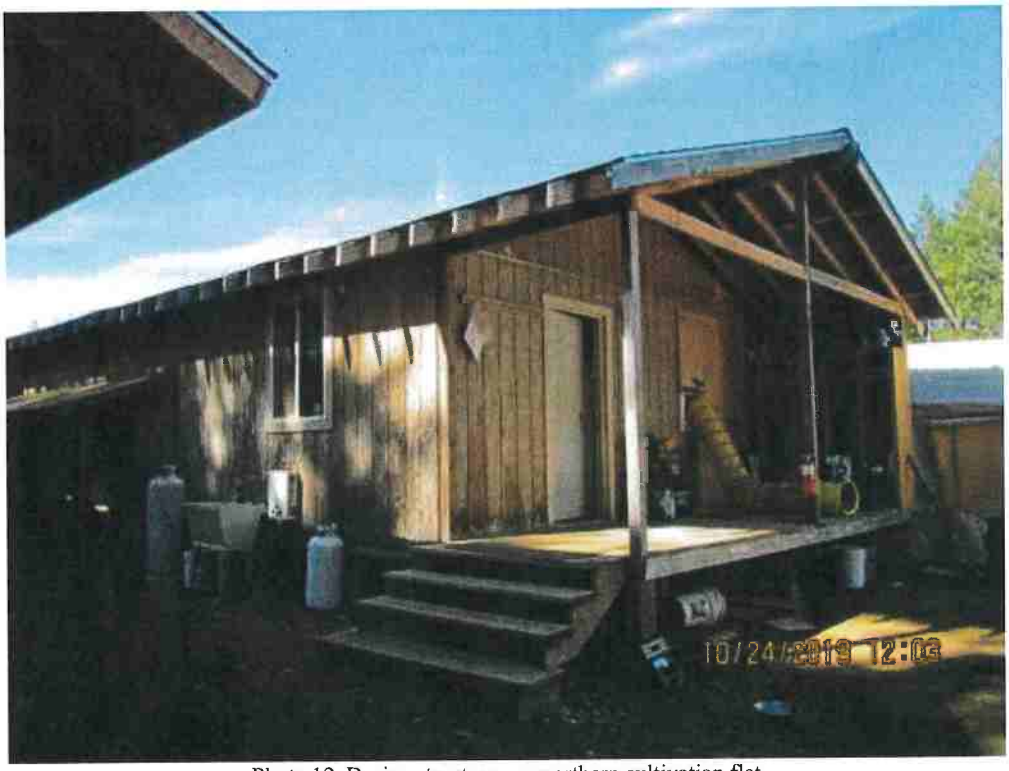

Photo 12. Drying structures on northern cultivation flat

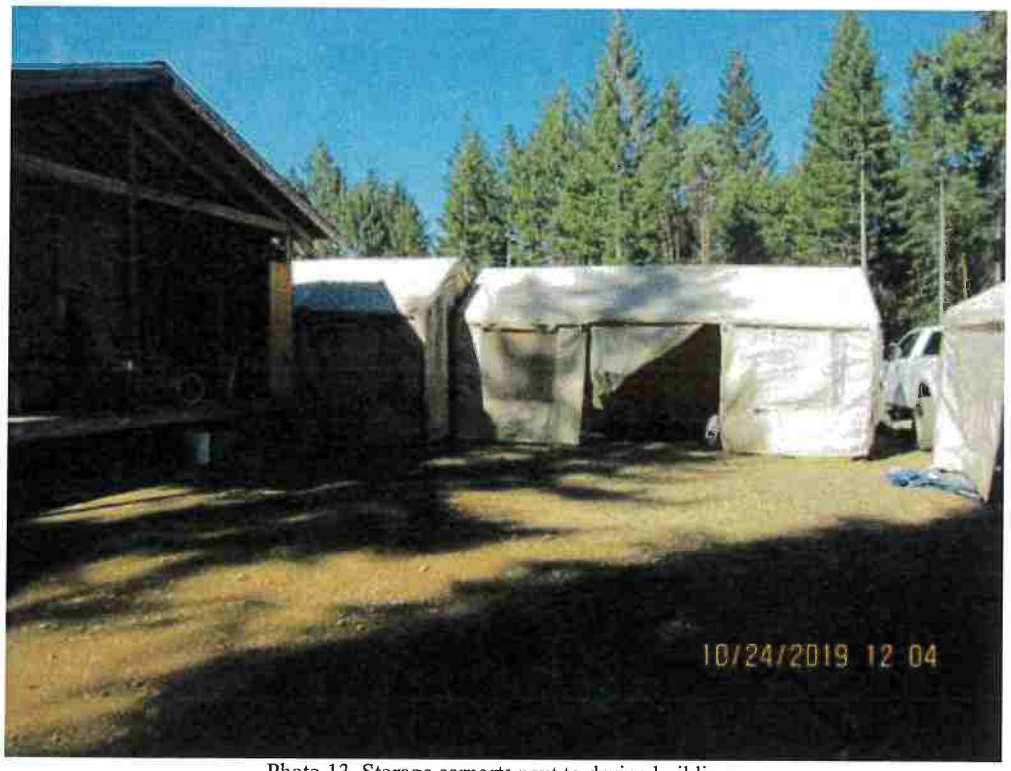

Photo 13. Storage carports next to drying buildings

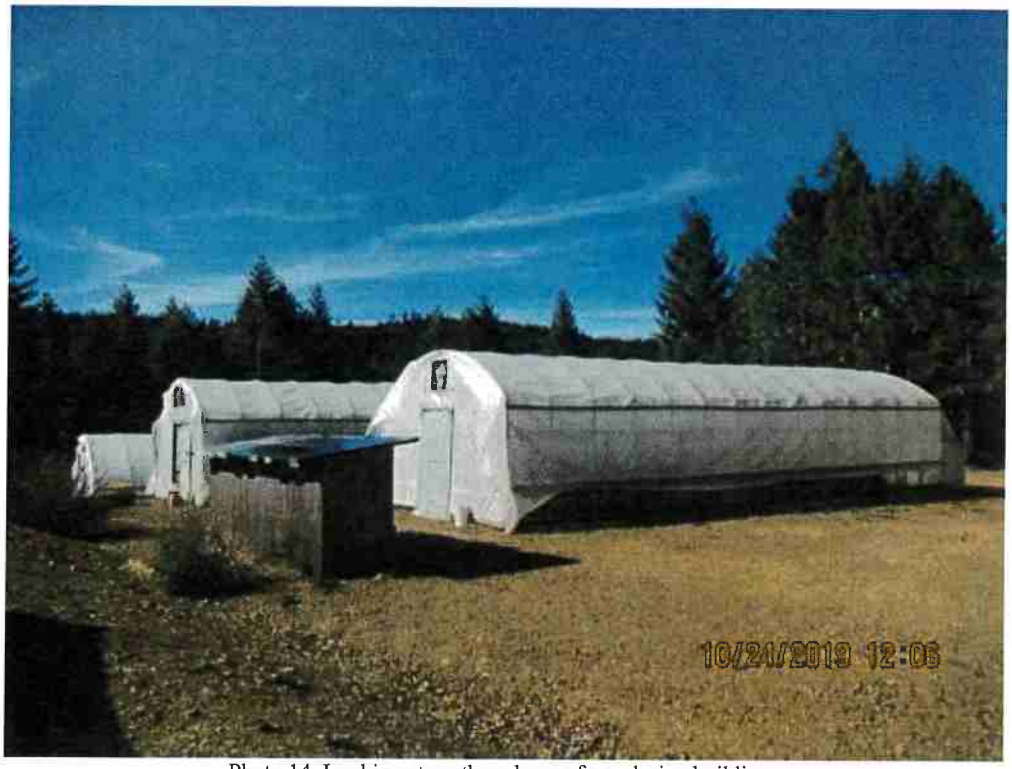

Photo 14. Looking at northern hoops from drying buildings

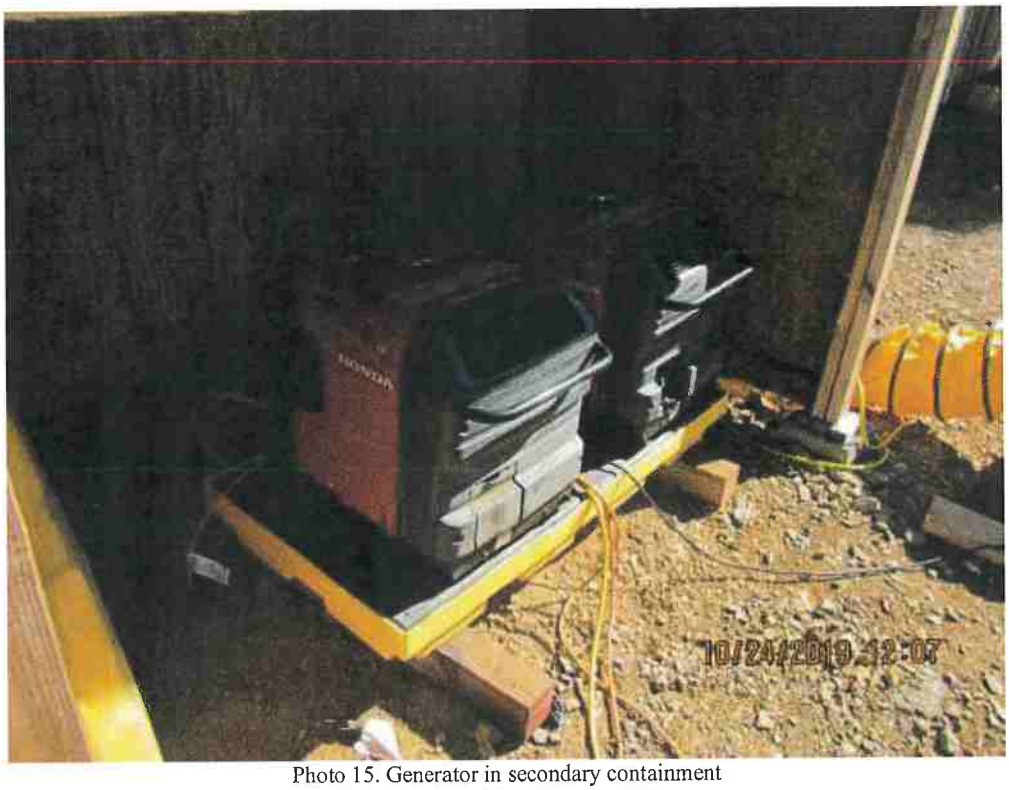

Photo 15. Generator in secondary containment

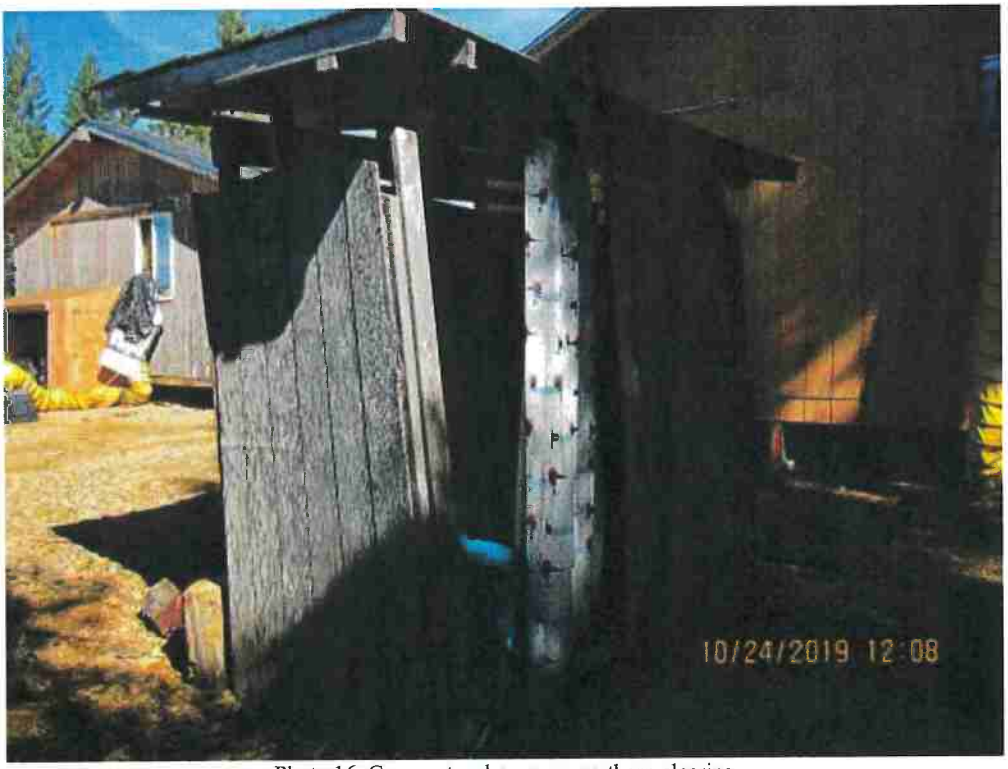

Photo 16. Grey water shower on northern clearing

Photo 17. Trash containment on northern clearing

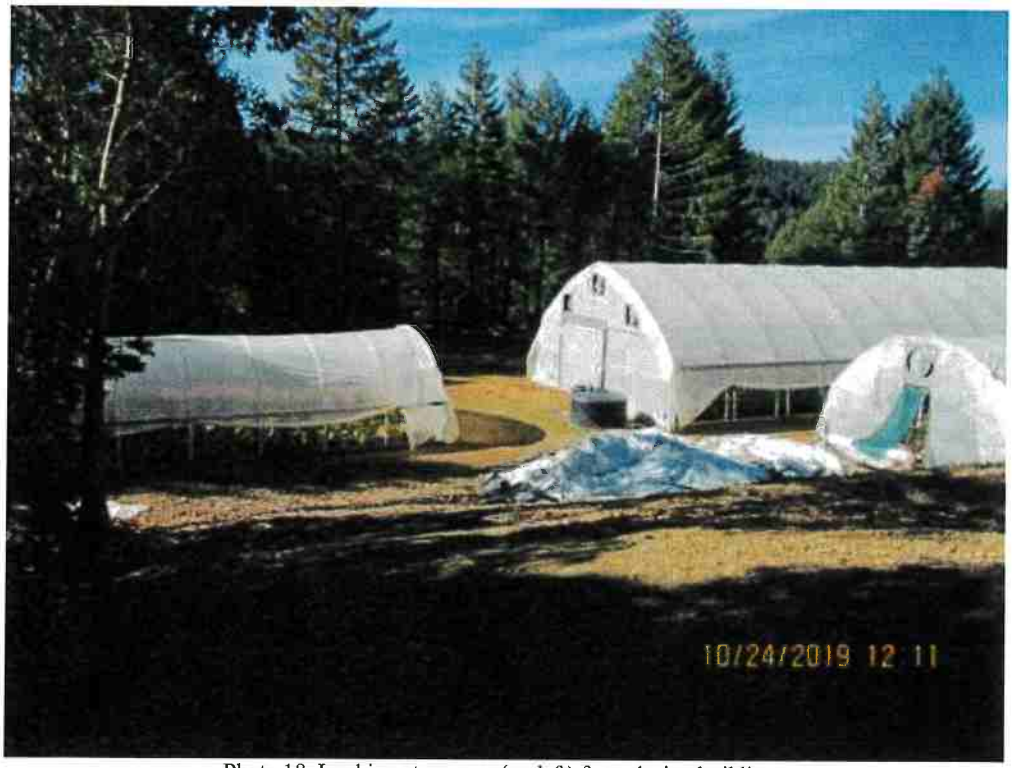

Photo 18. Looking at nursery (on left) from drying buildings

Photo 19. Trench cultivation method in northern hoops

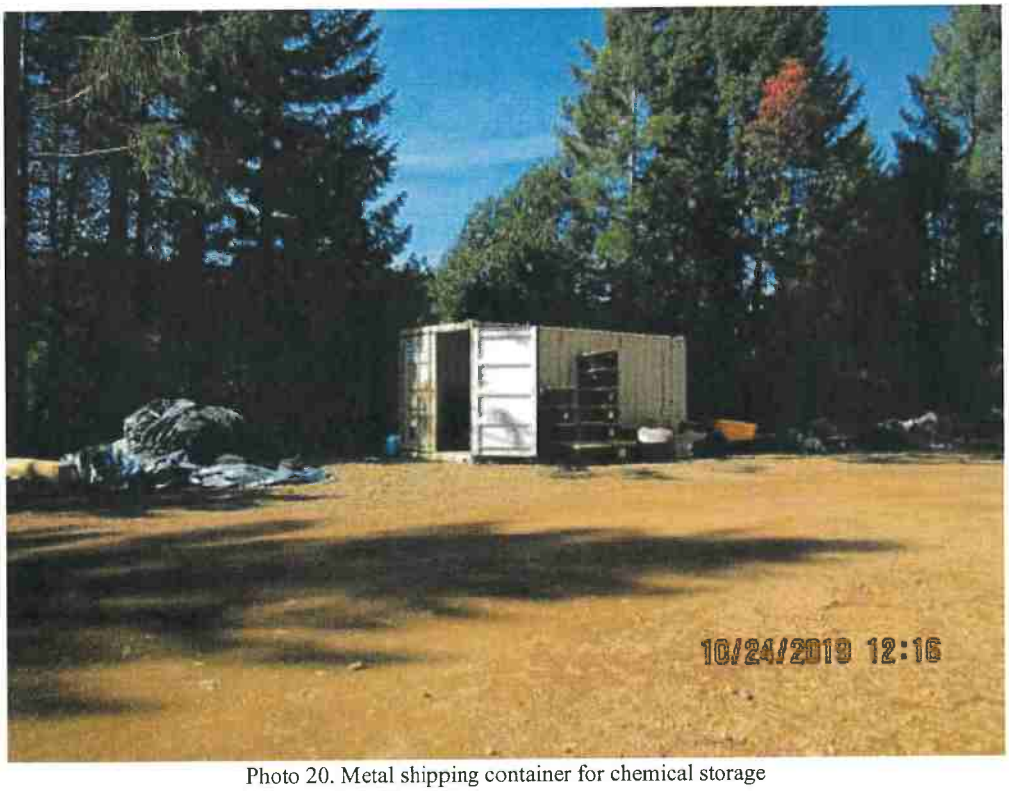

Photo 20. Metal shipping container for chemical storage

Photo 21. Inside of metal shipping container


Photo 22. Cut banks of northern cultivation area with plenty of native rock

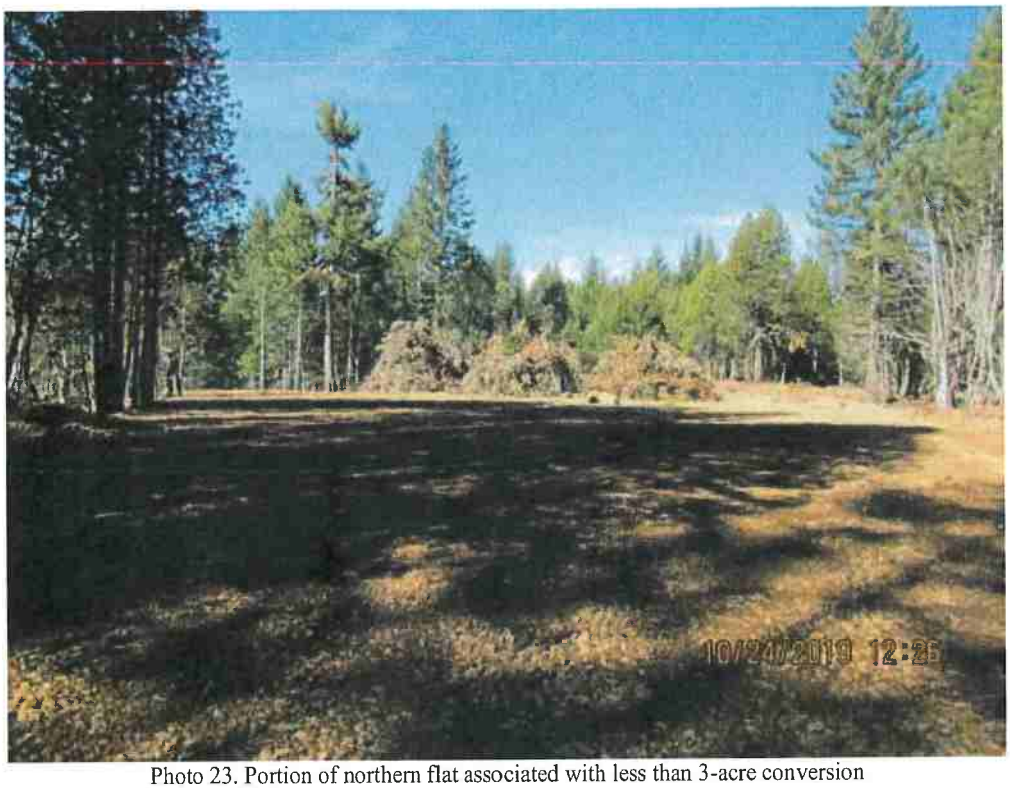

Photo 23. Portion of northern flat associated with less than 3-acre conversion

Photo 24. 60" crossing on Class II, inlet LDS

Photo 25. Left road approach of 60" crossing

Photo 26. Right approach of 60" crossing, goes through historic landslide

Appendix B. BPTC Measures from Attachment A of Cannabis Cultivation Policy

SECTION 2 – REQUIREMENTS RELATED TO WATER DIVERSIONS AND WASTE DISCHARGE FOR CANNABIS CULTIVATION

The following Requirements apply to any water diversion or waste discharge related to cannabis cultivation.

Land Development and Maintenance, Erosion Control, and Drainage Features

Limitations on Earthmoving

1. Cannabis cultivators shall not conduct grading activities for cannabis cultivation land development or alteration on slopes exceeding 50 percent grade, or as restricted by local county or city permits, ordinances, or regulations for grading, agriculture, or cannabis cultivation; whichever is more stringent shall apply. The grading prohibition on slopes exceeding 50 percent does not apply to site mitigation or remediation if the cannabis cultivator is issued separate WDRs or an enforcement order for the activity by the Regional Water Board Executive Officer.

2. Finished cut and fill slopes, including side slopes between terraces, shall not exceed slopes of 50 percent and should conform to the natural pre-grade slope whenever possible.

3. Cannabis cultivators shall not drive or operate vehicles or equipment within the riparian setbacks or within waters of the state unless authorized under 404/401 CWA permits, a CDFW LSA Agreement, coverage under the Cannabis General Order water quality certification, or site-specific WDRs issued by the Regional Water Board. This requirement does not prohibit driving on established, maintained access roads that are in compliance with this Policy.

4. Cannabis cultivation land development and access road construction shall be designed by qualified professionals. Cannabis cultivators shall conduct all construction or land development activities to minimize grading, soil disturbance, and disturbance to aquatic and terrestrial habitat.

5. The cannabis cultivator shall control all dust related to cannabis cultivation activities to ensure dust does not produce sediment-laden runoff. The cannabis cultivator shall implement dust control measures, including, but not limited to, pre-watering of excavation or grading sites, use of water trucks, track-out prevention, washing down vehicles or equipment before leaving a site, and prohibiting land disturbance activities when instantaneous wind speeds (gusts) exceed 25 miles per hour. Cannabis cultivators shall grade access roads in dry weather while moisture is still present in soil to minimize dust and to achieve design soil compaction, or when needed use a water truck to control dust and soil moisture.

Construction Equipment Use and Limitations

6. Cannabis cultivators shall employ spill control and containment practices to prevent the discharge of fuels, oils, solvents and other chemicals to soils and waters of the state.

7. Cannabis cultivators shall stage and store equipment, materials, fuels, lubricants, solvents, or hazardous or toxic materials in locations that minimize the potential for discharge to waters of the state. At a minimum, the following measures shall be implemented:

7.1. Designate an area outside the riparian setback for equipment storage, short-term maintenance, and refueling. Cannabis cultivator shall not conduct any maintenance activity

or refuel equipment in any location where the petroleum products or other pollutants may enter waters of the state as per Fish and Game Code section 5650 (a)(1).

7.2. Frequently inspect equipment and vehicles for leaks.

7.3. Immediately clean up leaks, drips, and spills. Except for emergency repairs that are necessary for safe transport of equipment or vehicles to an appropriate repair facility, equipment or vehicle repairs, maintenance, and washing onsite is prohibited.

7.4. If emergency repairs generate waste fluids, ensure they are contained and properly disposed or recycled off-site.

7.5. Properly dispose of all construction debris off-site. 6. Use dry cleanup methods (e.g., absorbent materials, cat litter, and/or rags) whenever possible. Sweep up, contain, and properly dispose of spilled dry materials.

Erosion Control

8. The cannabis cultivator shall use appropriate erosion control measures to minimize erosion of disturbed areas, potting soil, or bulk soil amendments to prevent discharges of waste. Fill soil shall not be placed where it may discharge into surface water. If used, weed-free straw mulch shall be applied at a rate of two tons per acre of exposed soils and, if warranted by site conditions, shall be secured to the ground.

9. The cannabis cultivator shall not plant or seed noxious weeds. Prohibited plant species include those identified in the California Invasive Pest Plant Council's database, available at: www.cal-ipc.org/paf/. Locally native, non-invasive, and non-persistent grass species may be used for temporary erosion control benefits to stabilize disturbed land and prevent exposure of disturbed land to rainfall. Nothing in this term may be construed as a ban on cannabis cultivation that complies with the terms of this Policy.

10. Cannabis cultivators shall incorporate erosion control and sediment detention devices and materials into the design, work schedule, and implementation of the cannabis cultivation activities. The erosion prevention and sediment capture measures shall be effective in protecting water quality.

- Interim erosion prevention and sediment capture measures shall be implemented within seven days of completion of grading and land disturbance activities, and Cannabis Cultivation Policy: Attachment A – October 17, 2017 Page 30 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.

11. Cannabis cultivators shall only use geotextiles, fiber rolls, and other erosion control measures made of loose-weave mesh (e.g., jute, coconut (coir) fiber, or from other products without welded weaves). To minimize the risk of ensnaring and strangling wildlife, cannabis cultivators shall not use synthetic (e.g., plastic or nylon) monofilament netting materials for erosion control for any cannabis cultivation activities. This prohibition includes photo- or bio-degradable plastic netting.

12. Cultivation sites constructed on or near slopes with a slope greater than or equal to 30 percent shall be inspected for indications of instability. Indications of instability include the occurrence of slope failures at nearby similar sites, weak soil layers, geologic bedding parallel to slope surface, hillside creep (trees, fence posts, etc. leaning downslope), tension cracks in the slope surface, bulging soil at the base of the slope, and groundwater discharge from the slope. If indicators of instability are present, the cannabis cultivator shall consult with a qualified professional to design measures to stabilize the slope to prevent sediment discharge to surface waters.

13. For areas outside of riparian setbacks or for upland areas, cannabis cultivators shall ensure that rock placed for slope protection is the minimum amount necessary and is part of a design that provides for native plant revegetation. If retaining walls or other structures are required to provide slope stability, they shall be designed by a qualified professional.

14. Cannabis cultivators shall monitor erosion control measures during and after each storm event that produces at least 0.5 in/day or 1.0 inch/7 days of precipitation, and repair or replace, as needed, ineffective erosion control measures immediately.

Access Road/Land Development and Drainage

15. Access roads shall be constructed consistent with the requirements of California Code of Regulations Title 14, Chapter 4. The Road Handbook describes how to implement the regulations and is available at . Existing access roads shall be upgraded to comply with the Road Handbook.

16. Cannabis cultivators shall obtain all required permits and approvals prior to the construction of any access road constructed for cannabis cultivation activities. Permits may include section 404/401 CWA permits, Regional Water Board WDRs (when applicable), CDFW LSA Agreement, and county or local agency permits.

17. Cannabis cultivators shall ensure that 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.

18. New access road alignments should be constructed with grades (slopes) of 3- to 8- percent, or less, wherever possible. Forest access roads should generally be kept below 12-percent except for short pitches of 500 feet or less where road slopes may go up to 20- percent. These steeper access road slopes should be paved or rock surfaced and equipped with adequate drainage. Existing access roads that do not comply with these limits shall be inspected by a qualified professional to determine if improvements are needed.

19. Cannabis cultivators shall decommission or relocate existing roads away from riparian setbacks whenever possible. Roads that are proposed for decommissioning shall be abandoned and left in a condition that provides for long-term, maintenance-free function of drainage and erosion controls. Abandoned roads shall be blocked to prevent unauthorized vehicle traffic.

20. If site conditions prohibit drainage structures (including rolling dips and ditch-relief culverts) at adequate intervals to avoid erosion, the cannabis cultivator shall use bioengineering techniques12 as the preferred measure to minimize erosion (e.g., live fascines). If bioengineering cannot be used, then engineering fixes such as armoring (e.g., rock of adequate size and depth to remain in place under traffic and flow conditions) and velocity dissipaters (e.g., gravel-filled "pillows" in an inside ditch to trap sediment) may be used for problem sites. The maximum distance between water breaks shall not exceed those defined in the Road Handbook.

21. Cannabis cultivators shall have a qualified professional design the optimal access road alignment, surfacing, drainage, maintenance requirements, and spoils handling procedures

22. Cannabis cultivators shall ensure that access road surfacing, especially within a segment leading to a waterbody, is sufficient to minimize sediment delivery to the wetland or waterbody and maximize access road integrity. Road surfacing may include pavement, chip-seal, lignin, rock, or other material appropriate for timing and nature of use. All access roads that will be used for winter or wet weather hauling/traffic shall be surfaced. Steeper access road grades require higher quality rock (e.g., crushed angular versus river-run) to remain in place. The use of asphalt grindings is prohibited.

23. Cannabis cultivators shall install erosion control measures on all access road approaches to surface water diversion sites to reduce the generation and transport of sediment to streams.

24. Cannabis cultivators shall ensure that access roads are out-sloped whenever possible to promote even drainage of the access road surface, prevent the concentration of storm water flow within an inboard or inside ditch, and to minimize disruption of the natural sheet flow pattern off a hill slope to a stream.

25. If unable to eliminate inboard or inside ditches, the cannabis cultivator shall ensure adequate ditch relief culverts to prevent down-cutting of the ditch and to reduce water runoff concentration, velocity, and erosion. Ditches shall be designed and maintained as recommended by a qualified professional. To avoid point-source discharges, inboard ditches and ditch relief culverts shall be discharged onto vegetated or armored slopes that are designed to dissipate and prevent runoff channelization. Inboard ditches and ditch relief culverts shall be designed to ensure discharges into natural stream channels or watercourses are prevented.

26. Cannabis cultivators shall ensure that access roads are not allowed to develop or show evidence of significant surface rutting or gullying. Cannabis cultivators shall use water bars and rolling dips as designed by a qualified professional to minimize access road surface erosion and dissipate runoff.

27. Cannabis cultivators shall only grade ditches when necessary to prevent erosion of the ditch, undermining of the banks, or exposure of the toe of the cut slope to erosion. Cannabis cultivators shall not remove more vegetation than necessary to keep water moving, as vegetation prevents scour and filters out sediment.

28. Access road storm water drainage structures shall not discharge onto unstable slopes, earthen fills, or directly to a waterbody. Drainage structures shall discharge onto stable areas with straw bales, slash, vegetation, and/or rock riprap.

29. Sediment control devices (e.g., check dams, sand/gravel bag barriers, etc.) shall be used when it is not practical to disperse storm water before discharge to a waterbody. Where potential discharge to a wetland or waterbody exists (e.g., within 200 feet of a waterbody) access road surface drainage shall be filtered through vegetation, slash, other appropriate material, or settled into a depression with an outlet with adequate drainage. Sediment basins shall be engineered and properly sized to allow sediment settling, spillway stability, and maintenance activities.

Drainage Culverts (See also Watercourse Crossings)

30. Cannabis cultivators shall regularly inspect ditch-relief culverts and clear them of any debris or sediment. To reduce ditch-relief culvert plugging by debris, cannabis cultivators shall use 15- to 24-inch diameter pipes, at minimum. In forested areas with a potential for woody debris, a minimum 18-inch diameter pipe shall be used to reduce clogging. Ditch relief culverts shall be designed by a qualified professional based on site-specific conditions.

31. Cannabis cultivators shall ensure that all permanent watercourse crossings that are constructed or reconstructed are capable of accommodating the estimated 100-year flood flow, including debris and sediment loads. Watercourse crossings shall be designed and sized by a qualified professional.

Cleanup, Restoration, and Mitigation

32. Cannabis cultivators shall limit disturbance to existing grades and vegetation to the actual site of the cleanup or remediation and any necessary access routes.

33. Cannabis cultivators shall avoid damage to native riparian vegetation. All exposed or disturbed land and access points within the stream and riparian setback with damaged vegetation shall be restored with regional native vegetation of similar native species. Riparian trees over four inches diameter at breast height shall be replaced by similar native species at a ratio of three to one (3:1). Restored areas must be mulched, using at least 2 to 4 inches of weed-free, clean straw or similar biodegradable mulch over the seeded area. Mulching shall be completed within 30 days after land disturbance activities in the areas cease. Revegetation planting shall occur at a seasonally appropriate time until vegetation is restored to pre-cannabis or pre-Legacy condition or better. Cannabis cultivators shall stabilize and restore any temporary work areas with native vegetation to pre-cannabis cultivation or pre-Legacy conditions or better. Vegetation shall be planted at an adequate density and variety to control surface erosion and re-generate a diverse composition of regional native vegetation of similar native species.

34. Cannabis cultivators shall avoid damage to oak woodlands. Cannabis cultivator shall plant three oak trees for every one oak tree damaged or removed. Trees may be planted in groves in order to maximize wildlife benefits and shall be native to the local county.

35. Cannabis cultivators shall develop a revegetation plan for:

- All exposed or disturbed riparian vegetation areas,
- any oak trees that are damaged or removed, and
- temporary work areas.
- Cannabis cultivators shall develop a monitoring plan that evaluates the revegetation plan for five years. Cannabis cultivators shall maintain annual inspections for the purpose of assessing an 85 percent survival and growth of revegetated areas within a five-year period. The presence of exposed soil shall be documented for three years following revegetation work. If the revegetation results in less than an 85 percent success rate, the unsuccessful vegetation areas shall be replanted. Cannabis

cultivators shall identify the location and extent of exposed soil associated with the site; pre- and post-revegetation work photos; diagram of all areas revegetated, the planting methods, and plants used; and an assessment of the success of the revegetation program. Cannabis cultivators shall maintain a copy of the revegetation plan and monitoring results onsite and make them available, upon request, to Water Boards staff or authorized representatives. An electronic copy of monitoring results is acceptable in Portable Document Format (PDF).

36. Cannabis cultivators shall revegetate soil exposed as a result of cannabis cultivation activities with native vegetation by live planting, seed casting, or hydroseeding within seven days of exposure.

37. Cannabis cultivators shall prevent the spread or introduction of exotic plant species to the maximum extent possible by cleaning equipment before delivery to the cannabis cultivation Site and before removal, restoring land disturbance with appropriate native species, and post-cannabis cultivation activities monitoring and control of exotic species. Nothing in this term may be construed as a ban on cannabis cultivation that complies with the terms of this Policy.

Stream Crossing Installation and Maintenance

Limitations on Work in Watercourses and Permanently Ponded Areas

38. Cannabis cultivators shall obtain all applicable permits and approvals prior to doing any work in or around waterbodies or within the riparian setbacks. Permits may include section 404/401 CWA permits, Regional Water Board WDRs (when applicable), and a CDFW LSA Agreement.

39. Cannabis cultivators shall avoid or minimize temporary stream crossings. When necessary, temporary stream crossings shall be located in areas where erosion potential and damage to the existing habitat is low. Cannabis cultivators shall avoid areas where runoff from access roadway side slopes and natural hillsides will drain and flow into the temporary crossing. Temporary stream crossings that impede fish passage are strictly prohibited on permanent or seasonal fish-bearing streams.

40. Cannabis cultivators shall avoid or minimize use of heavy equipment13 in a watercourse. If use is unavoidable, heavy equipment may only travel or work in a waterbody with a rocky or cobbled channel. Wood, rubber, or clean native rock temporary work pads shall be used on the channel bottom prior to use of heavy equipment to protect channel bed and preserve channel morphology. Temporary work pads and other channel protection shall be removed as soon as possible once the use of heavy equipment is complete.

41. Cannabis cultivators shall avoid or minimize work in or near a stream, creek, river, lake, pond, or other waterbody. If work in a waterbody cannot be avoided, activities and associated workspace shall be isolated from flowing water by directing the water around the work site. If water is present, then the cannabis cultivator shall develop a site-specific plan prepared by a qualified professional. The plan shall consider partial or full stream diversion and dewatering. The plan shall consider the use of coffer dams upstream and downstream of the work site and the diversion of all flow from upstream of the upstream dam to downstream of the downstream dam, through a suitably sized pipe with intake screens that protect and prevent impacts to fish and wildlife. Cannabis cultivation activities and associated work shall be performed outside the waterbody from the top of the bank to the maximum extent possible.

Temporary Watercourse Diversion and Dewatering: All Live Watercourses

42. Cannabis cultivators shall ensure that coffer dams are constructed prior to commencing work and as close as practicable upstream and downstream of the work area. Cofferdam construction using offsite materials, such as clean gravel bags or inflatable dams, is preferred. Thick plastic may be used to minimize

leakage, but shall be completely removed and properly disposed of upon work completion. If the coffer dams or stream diversion fail, the cannabis cultivator shall repair them immediately.

43. When any dam or other artificial obstruction is being constructed, maintained, or placed in operation, the cannabis cultivator shall allow sufficient water at all times to pass downstream to maintain aquatic life below the dam pursuant to Fish and Game Code section 5937.

44. If possible, gravity flow is the preferred method of water diversion. If a pump is used, the cannabis cultivator shall ensure that the pump is operated at the rate of flow that passes through the cannabis cultivation site. Pumping rates shall not dewater or impound water on the upstream side of the coffer dam. When diversion pipe is used it shall be protected from cannabis cultivation activities and maintained to prevent debris blockage.

45. Cannabis cultivators shall only divert water such that water does not scour the channel bed or banks at the downstream end. Cannabis cultivator shall divert flow in a manner that prevents turbidity, siltation, and pollution and provides flows to downstream reaches. Cannabis cultivators shall provide flows to downstream reaches during all times that the natural flow would have supported aquatic life. Flows shall be of sufficient quality and quantity, and of appropriate temperature to support fish and other aquatic life both above and below the diversion. Block netting and intake screens shall be sized to protect and prevent impacts to fish and wildlife.

46. Once water has been diverted around the work area, cannabis cultivators may dewater the site to provide an adequately dry work area. Any muddy or otherwise contaminated water shall be pumped to a settling tank, dewatering filter bag, or upland area, or to another location approved by CDFW or the appropriate Regional Water Board Executive Officer prior to re-entering the watercourse.

47. Upon completion of work, cannabis cultivators shall immediately remove the flow diversion structure in a manner that allows flow to resume with a minimum of disturbance to the channel substrate and that minimizes the generation of turbidity.

Watercourse Crossings

48. Cannabis cultivators shall ensure that watercourse crossings are designed by a qualified professional.

49. Cannabis cultivators shall ensure that all access road watercourse crossing structures allow for the unrestricted passage of water and shall be designed to accommodate the estimated 100-year flood flow and associated debris (based upon an assessment of the streams potential to generate debris during high flow events). Consult CAL FIRE 100 year Watercourse Crossings document for examples and design calculations, available at: http://calfire.ca.gov/resource_mgt/downloads/100%20yr%20revised%208-08-17%20(finala).pdf.

50. Cannabis cultivators shall ensure that watercourse crossings allow migration of aquatic life during all life stages supported or potentially supported by that stream reach. Design measures shall be incorporated to ensure water depth and velocity does not inhibit migration of aquatic life. Any access road crossing structure on watercourses that supports fish shall be constructed for the unrestricted passage of fish at all life stages, and should use the following design guidelines:

- CDFW's Culvert Criteria for Fish Passage;

- CDFW's Salmonid Stream Habitat Restoration Manual, Volume 2, Part IX: Fish Passage Evaluation at Stream Crossings; and

- National Marine Fisheries Service, Southwest Region Guidelines for Salmonid Passage at Stream Crossings.

51. Cannabis cultivators shall conduct regular inspection and maintenance of stream crossings to ensure crossings are not blocked by debris. Refer to California Board of Forestry Technical Rule No. 5 available at: http://www.calforests.org/wpcontent/uploads/2013/10/Adopted-TRA5.pdf.

52. Cannabis cultivators shall only use rock fords for temporary seasonal crossings on small watercourses where aquatic life passage is not required during the time period of use. Rock fords shall be oriented perpendicular to the flow of the watercourse and designed to maintain the range of surface flows that occur in the watercourse. When constructed, rock shall be sized to withstand the range of flow events that occur at the crossing and rock shall be maintained at the rock ford to completely cover the channel bed and bank surfaces to minimize soil compaction, rutting, and erosion. Rock must extend on either side of the ford up to the break in slope. The use of rock fords as watercourse crossings for all-weather access road use is prohibited.

53. Cannabis cultivators shall ensure that culverts used at watercourse crossings are designed to direct flow and debris toward the inlet (e.g., use of wing-walls, pipe beveling, rock armoring, etc.) to prevent erosion of road fill, debris blocking the culvert, and watercourses from eroding a new channel.

54. Cannabis cultivators shall regularly inspect and maintain the condition of access roads, access road drainage features, and watercourse crossings. At a minimum, cannabis cultivators shall perform inspections prior to the onset of fall and winter precipitation and following storm events that produce at least 0.5 in/day or 1.0 inch/7 days of precipitation. Cannabis cultivators are required to perform all of the following maintenance:

- Remove any wood debris that may restrict flow in a culvert.
- Remove sediment that impacts access road or drainage feature performance. Place any removed sediment in a location outside the riparian setbacks and stabilize the sediment.
- Maintain records of access road and drainage feature maintenance and consider redesigning the access road to improve performance and reduce maintenance needs.

55. Cannabis cultivators shall compact access road crossing approaches and fill slopes during installation and shall stabilize them with rock or other appropriate surface protection to minimize surface erosion. When possible, cannabis cultivators shall ensure that access roads over culverts are equipped with a critical dip to ensure that, if the culvert becomes blocked or plugged, water can flow over the access road surface without washing away the fill prism. Access road crossings where specific conditions do not allow for a critical dip or in areas with potential for significant debris accumulation, shall include additional measures such as emergency overflow culverts or oversized culverts that are designed by a qualified professional.

56. Cannabis cultivators shall ensure that culverts used at watercourse crossings are: 1) installed parallel to the watercourse alignment to the extent possible, 2) of sufficient length to extend beyond stabilized fill/sidecast material, and 3) embedded or installed at the same level and gradient of the streambed in which they are being placed to prevent erosion.

Soil Disposal and Spoils Management

57. Cannabis cultivators shall store soil, construction, and waste materials outside the riparian setback except as needed for immediate construction needs. Such materials shall not be stored in locations of known slope instability or where the storage of construction or waste material could reduce slope stability.

58. Cannabis cultivators shall separate large organic material (e.g., roots, woody debris, etc.) from soil materials. Cannabis cultivators shall either place the large organic material in long-term, upland storage sites, or properly dispose of these materials offsite.

59. Cannabis cultivators shall store erodible soil, soil amendments, and spoil piles to prevent sediment discharges in storm water. Storage practices may include use of tarps, upslope land contouring to divert surface flow around the material, or use of sediment control devices (e.g., silt fences, straw wattles, etc.).

60. Cannabis cultivators shall contour and stabilize stored spoils to mimic natural slope contours and drainage patterns (as appropriate) to reduce the potential for fill saturation and slope failure. 61. For soil disposal sites cannabis cultivators shall:

- Revegetate soil disposal sites with a mix of native plant species,
- Cover the seeded and planted areas with mulched straw at a rate of two tons per acre, and
- Apply non-synthetic netting or similar erosion control fabric (e.g., jute) on slopes greater than 2:1 if the site is erodible.

62. Cannabis cultivators shall haul away and properly dispose of excess soil and other debris as needed to prevent discharge to waters of the state.

Riparian and Wetland Protection and Management

63. Cannabis cultivators shall not disturb aquatic or riparian habitat, such as pools, spawning sites, large wood, or shading vegetation unless authorized under a CWA section 404 permit, CWA section 401 certification, Regional Water Board WDRs (when applicable), or a CDFW LSA Agreement.

64. Cannabis cultivators shall maintain existing, naturally occurring, riparian vegetative cover (e.g., trees, shrubs, and grasses) in aquatic habitat areas to the maximum extent possible to maintain riparian areas for streambank stabilization, erosion control, stream shading and temperature control, sediment and chemical filtration, aquatic life support, wildlife support, and to minimize waste discharge.

Water Storage and Use

Water Supply, Diversion, and Storage

65. Cannabis cultivators shall only install, maintain, and destroy wells in compliance with county, city, and local ordinances and with California Well Standards as stipulated in California Department of Water Resources Bulletins 74-90 and 74-81.14

66. All water diversions for cannabis cultivation from a surface stream, subterranean stream flowing through a known and definite channel (e.g., groundwater well diversions from subsurface stream flows), or other surface waterbody are subject to the surface water Numeric and Narrative Instream Flow Requirements. This includes lakes, ponds, and springs (unless the spring is deemed exempt by the Deputy Director).

67. Groundwater diversions may be subject to additional requirements, such as a forbearance period, if the State Water Board determines those requirements are reasonably necessary to implement the purposes of this Policy.

68. Cannabis cultivators are encouraged to use appropriate rainwater catchment systems to collect from impermeable surfaces (e.g., roof tops, etc.) during the wet season and store storm water in tanks, bladders, or off-stream engineered reservoirs to reduce the need for surface water or groundwater diversions.

69. Cannabis cultivators shall not divert surface water unless it is diverted in accordance with an existing water right that specifies, as appropriate, the source, location of the point of diversion, purpose of use, place of use, and quantity and season of diversion. Cannabis cultivators shall maintain documentation of the water right at the cannabis cultivation site. Documentation of the water right shall be available for review and inspection by the Water Boards, CDFW, and any other authorized representatives of the Water Boards or CDFW.

70. Cannabis cultivators shall ensure that all water diversion facilities are designed, constructed, and maintained so they do not prevent, impede, or tend to prevent the passing of fish, as defined by Fish and Game Code section 45, upstream or downstream, as required by Fish and Game Code section 5901. This includes but is not limited to the supply of water at an appropriate depth, temperature, and velocity to facilitate upstream and downstream aquatic life movement and migration. Cannabis cultivators shall allow sufficient water at all times to pass past the point of diversion to keep in good condition any fish that may be planted or exist below the point of diversion as defined by Fish and Game Code section 5937. Cannabis cultivators shall not divert water in a manner contrary to or inconsistent with these Requirements.

71. Cannabis cultivators issued a Cannabis SIUR by the State Water Board shall not divert surface water unless in compliance with all additional Cannabis SIUR conditions required by CDFW.

72. Water diversion facilities shall include satisfactory means for bypassing water to satisfy downstream prior rights and any requirements of policies for water quality control, water quality control plans, water quality certifications, waste discharge requirements, or other local, state or federal instream flow requirements. Cannabis cultivators shall not divert in a manner that results in injury to holders of legal downstream senior rights. Cannabis cultivators may be required to curtail diversions should diversion result in injury to holders of legal downstream senior water rights or interfere with maintenance of downstream instream flow requirements.

73. Fuel powered (e.g., gas, diesel, etc.) diversion pumps shall be located in a stable and secure location outside of the riparian setbacks unless authorized under a 404/401 CWA permits, a CDFW LSA Agreement, coverage under the Cannabis General Order water quality certification, or site-specific WDRs issued by the Regional Water Board. Use of non-fuel powered diversion pumps (solar, electric, gravity, etc.) is encouraged. In all cases, all pumps shall:

1. be properly maintained,

2. have suitable containment to ensure any spills or leaks do not enter surface waterbodies or groundwater, and

3. have sufficient overhead cover to prevent exposure of equipment to precipitation.

74. No water shall be diverted unless the cannabis cultivator is operating the water diversion facility with a CDFW-approved water-intake screen (e.g. fish screen). The water intake screen shall be designed and maintained in accordance with screening criteria approved by CDFW. The screen shall prevent wildlife from entering the diversion intake and becoming entrapped. The cannabis cultivator shall contact the regional CDFW Office, LSA Program for information on screening criteria for diversion(s). The cannabis cultivator shall provide evidence that demonstrates that the water intake screen is in good condition

whenever requested by the Water Boards or CDFW. Points of re-diversion from off-stream storage facilities that are open to the environment shall have a water intake screen, as required by CDFW.

75. Cannabis cultivators shall inspect, maintain, and clean water intake screens and bypass appurtenances as directed by CDFW to ensure proper operation for the protection of fish and wildlife.

76. Cannabis cultivators shall not obstruct, alter, dam, or divert all or any portion of a natural watercourse prior to obtaining all applicable permits and approvals. Permits may include a valid water right, 404/401 CWA permits, a CDFW LSA Agreement, coverage under the Cannabis General Order water quality certification, or site-specific WDRs issued by the Regional Water Board.

77. Cannabis cultivators shall plug, block, cap, disconnect, or remove the diversion intake associated with cannabis cultivation activities during the surface water forbearance period, unless the diversion intake is used for other beneficial uses, to ensure no water is diverted during that time.

78. Cannabis cultivators shall not divert from a surface water or from a subterranean stream for cannabis cultivation at a rate more than a maximum instantaneous diversion rate of 10 gallons per minute, unless authorized under an existing appropriative water right.

82. Onstream storage reservoirs are prohibited unless either:

- The cannabis cultivator has an existing water right with irrigation as a designated use, issued prior to October 31, 2017, that authorizes the onstream storage reservoir, or
- The cannabis cultivator obtains an appropriative water right permit with irrigation as a designated use prior to diverting water from an onstream storage reservoir for cannabis cultivation. Cannabis cultivators with a pending application or an unpermitted onstream storage reservoir shall not divert for cannabis cultivation until the cannabis cultivator has obtain a valid water right.

83. Cannabis cultivators are encouraged to install separate storage systems for water diverted for cannabis irrigation and water diverted for any other beneficial uses,16 or otherwise shall install separate measuring devices to quantify diversion to and from each storage facility, including the quantity of water diverted and the quantity, place, and purpose of use (e.g., cannabis irrigation, other crop irrigation, domestic, etc.) for the stored water.

84. The cannabis cultivator shall install and maintain a measuring device(s) for surface water or subterranean stream diversions. The measuring device shall be, at a minimum equivalent to the requirements for direct diversions greater than 10 acre-feet per year in California Code of Regulations, Title 23, Division 3, Chapter 2.717. The measuring device(s) shall be located as close to the point of diversion as reasonable. Cannabis cultivators shall maintain daily diversion records for water diverted for cannabis cultivation. Cannabis cultivators shall maintain separate records that document the amount of water used for cannabis cultivation separated out from the amount of water used for other irrigation purposes and other beneficial uses of water (e.g., domestic, fire protection, etc.). Cannabis cultivators shall maintain daily diversion records at the cultivation site and shall make the records available for review or by request by the Water Boards CDFW, or any other authorized representatives of the Water Boards or CDFW. Daily diversion records shall be retained for a minimum of five years. Compliance with this term is required for any surface water diversion for cannabis cultivation, even those under 10 acre-feet per year.

85. The State Water Board intends to develop and implement a basin-wide program for realtime electronic monitoring and reporting of diversions, withdrawals, releases and streamflow in a standardized format if and when resources become available. Such realtime reporting will be required upon a showing by the State

Water Board that the program and the infrastructure are in place to accept real-time electronic reports. Implementation of the reporting requirements shall not necessitate amendment to this Requirement.

86. Cannabis cultivators shall not use off-stream storage reservoirs and ponds to store water for cannabis cultivation unless they are sited and designed or approved by a qualified professional in compliance with Division of Safety of Dams (DSOD), county, and/or city requirements, as applicable. If the DSOD, county, and/or city do not have established requirements they shall be designed consistent with the Natural Resource Conservation Service National Engineering Manual. Reservoirs shall be designed with an adequate overflow outlet that is protected and promotes the dispersal and infiltration of flow and prevents channelization. All off-stream storage reservoirs and ponds shall be designed, managed, and maintained to accommodate average annual winter period precipitation and storm water inputs to reduce the potential for overflow. Cannabis cultivators shall plant native vegetation along the perimeter of the reservoir in locations where it does not impact the structural integrity of the reservoir berm or spillway. The cannabis cultivator shall control vegetation around the reservoir berm and spillway to allow for visual inspection of berm and spillway condition and control burrowing animals as necessary.

87. Cannabis cultivators shall implement an invasive species management plan prepared by a Qualified Biologist for any existing or proposed water storage facilities that are open to the environment. The plan shall include, at a minimum, an annual survey for bullfrogs and other invasive aquatic species. If bullfrogs or other invasive aquatic species are identified, eradication measures shall be implemented under the direction of a qualified biologist, if appropriate after consultation with CDFW (pursuant to Fish and Game Code section 6400). Eradication methods can be direct or indirect. Direct methods may include handheld dip net, hook and line, lights, spears, gigs, or fish tackle under a fishing license (pursuant to Fish and Game Code section 6855). An indirect method may involve seasonally timed complete dewatering and a drying period of the off-stream storage facility under a Permit to Destroy Harmful Species (pursuant to Fish and Game Code section 5501) issued by CDFW.

88. Water storage bladders are not encouraged for long-term use. If bladders are used, the cannabis cultivator shall ensure that the bladder is designed and properly installed to store water and that the bladder is sited to minimize the potential for water to flow into a watercourse in the event of a catastrophic failure. If a storage bladder has been previously used, the cannabis cultivator shall carefully inspect the bladder to confirm its integrity and confirm the absence of any interior residual chemicals prior to resuming use. Cannabis cultivators shall periodically inspect water storage bladders and containment features to ensure integrity. Water storage bladders shall be properly disposed of or recycled and not resold when assurance of structural integrity is no longer guaranteed.

89. Cannabis cultivators shall not use water storage bladders unless the bladder is safely contained within a secondary containment system with sufficient capacity to capture 110 percent of a bladder's maximum possible contents in the event of bladder failure (i.e., 110 percent of bladder's capacity). Secondary containment systems shall be of sufficient strength and stability to withstand the forces of released contents in the event of catastrophic bladder failure. In addition, secondary containment systems that are open to the environment shall be designed and maintained with sufficient capacity to accommodate precipitation and storm water inputs from a 25-year, 24-hour storm event.

90. Cannabis cultivators shall not cause or allow any overflow from off-stream water storage facilities that are closed to the environment (e.g., tanks and bladders) if the off-stream facilities are served by a diversion from surface water or groundwater. Cannabis cultivators shall regularly inspect for and repair all leaks of the diversion and storage system.

91. Water storage tanks, bladders, and other off-stream water storage facilities that are closed to the environment shall not be located in a riparian setback or next to equipment that generates heat. Cannabis cultivators shall place water storage tanks, bladders, and other off-stream water storage facilities that are closed to the environment in areas that allow for ease of installation, access, maintenance, and minimize road development.

92. Cannabis cultivators shall install vertical and horizontal tanks according to manufacturer's specifications and shall place tanks on properly compacted soil that is free of rocks and sharp objects and capable of bearing the weight of the tank and its maximum contents with minimal settlement. Tanks shall not be located in areas of slope instability. Cannabis cultivators shall install water storage tanks capable of containing more than 8,000 gallons only on a reinforced concrete pad providing adequate support and enough space to attach a tank restraint system (anchor using the molded-in tie down lugs with moderate tension, being careful not to over-tighten) per the recommendations of a qualified professional.

93. To prevent rupture or overflow and runoff, cannabis cultivators shall only use water storage tanks and bladders equipped with a float valve, or equivalent device, to shut off diversion when storage systems are full. Cannabis cultivators shall install any other measures necessary to prevent overflow of storage systems to prevent runoff and the diversion of more water than can be used and/or stored.

94. Cannabis cultivators shall ensure that all vents and other openings on water storage tanks are designed to prevent the entry and/or entrapment of wildlife.

95. Cannabis cultivators shall retain, for a minimum of five years, appropriate documentation for any hauled water18 used for cannabis cultivation. Documentation for hauled water shall include, for each delivery, all of the following:

1. A receipt that shows the date of delivery and the name, address, license plate number, and license plate issuing state for the water hauler,

2. A copy of the Water Hauler's License (California Health and Safety Code section 111120),

3. A copy of proof of the Water Hauler's water right, groundwater well, or other authorization to take water, and the location of the water source, and

4. The quantity of water delivered or picked up from a water source, in gallons. Documentation shall be made available, upon request, to Water Boards or CDFW staff and any other authorized representatives of the Water Boards or CDFW.

Water Conservation and Use

96. Cannabis cultivators shall regularly inspect their entire water delivery system for leaks and immediately repair any leaky faucets, pipes, connectors, or other leaks.

97. Cannabis cultivators shall use weed-free mulch in cultivation areas that do not have ground cover to conserve soil moisture and minimize evaporative loss.

98. Cannabis cultivators shall implement water conserving irrigation methods (e.g., drip or trickle irrigation, micro-spray, or hydroponics).

99. Cannabis cultivators shall maintain daily records of all water used for irrigation of cannabis. Daily records may be calculated by the use of a measuring device or, if known, by calculating the irrigation system rates and duration of time watered (e.g., irrigating for one hour twice per day using 50 half-gallon drips equates to 50 gallons per day (1*2*50*0.5) of water used for irrigation). Cannabis cultivators shall retain,

for a minimum of 5 years, irrigation records at the cannabis cultivation site and shall make all irrigation records available for review by the Water Boards, CDFW and any other authorized representatives of the Water Boards or CDFW.

Irrigation Runoff

100. Cannabis cultivators shall regularly inspect for leaks in mainlines, laterals, in irrigation connections, sprinkler heads, or at the ends of drip tape and feeder lines and immediately repair any leaks found upon detection.

101. The irrigation system shall be designed to include redundancy (e.g., safety valves) in the event that leaks occur, so that waste of water and runoff is prevented and minimized.

102. Cannabis cultivators shall regularly replace worn, outdated, or inefficient irrigation system components and equipment to ensure a properly functioning, leak-free irrigation system at all times.

103. Cannabis cultivators shall minimize irrigation deep percolation by applying irrigation water at agronomic rates.

Fertilizers, Pesticides, and Petroleum Products

104. Cannabis cultivators shall not mix, prepare, over apply, or dispose of agricultural chemicals/products (e.g., fertilizers, pesticides, and other chemicals as defined in the applicable water quality control plan) in any location where they could enter the riparian setback or waters of the state. The use of agricultural chemicals inconsistently with product labeling, storage instructions, or DPR requirements for pesticide applications is prohibited. Disposal of unused product and containers shall be consistent with labels.

105. Cannabis cultivators shall keep and use absorbent materials designated for spill containment and spill cleanup equipment on-site for use in an accidental spill of fertilizers, petroleum products, hazardous materials, and other substances which may degrade waters of the state. The cannabis cultivator shall immediately notify the California Office of Emergency Services at 1-800-852-7550 and immediately initiate cleanup activities for all spills that could enter a waterbody or degrade groundwater.

106. Cannabis cultivators shall establish and use a separate storage area for pesticides, and fertilizers, and another storage area for petroleum or other liquid chemicals (including diesel, gasoline, oils, etc.). All such storage areas shall comply with the riparian setback Requirements, be in a secured location in compliance with label instructions, outside of areas of known slope instability, and be protected from accidental ignition, weather, and wildlife. All storage areas shall have appropriate secondary containment structures, as necessary, to protect water quality and prevent spillage, mixing, discharge, or seepage. Storage tanks and containers must be of suitable material and construction to be compatible with the substances stored and conditions of storage, such as pressure and temperature.

107. Throughout the wet season, Cannabis Cultivators shall ensure that any temporary storage areas have a permanent cover and side-wind protection or be covered during non-working days and prior to and during rain events.

108. Cannabis cultivators shall only use hazardous materials24 in a manner consistent with the product's label.

109. Cannabis cultivators shall only keep hazardous materials in their original containers with labels intact, and shall store hazardous materials to prevent exposure to sunlight, excessive heat, and precipitation. Cannabis cultivators shall provide secondary containment for hazardous materials to prevent possible

exposure to the environment. Disposal of unused hazardous materials and containers shall be consistent with the label.

110. Cannabis cultivators shall only mix, prepare, apply, or load hazardous materials outside of the riparian setbacks.

111. Cannabis cultivators shall not apply agricultural chemicals within 48 hours of a predicted rainfall event of 0.25 inches or greater with a probability greater than 50-percent. In the Lake Tahoe Hydrologic Unit, cannabis cultivators shall not apply agricultural chemicals within 48 hours of any weather pattern that is forecast to have a 30 percent or greater chance of precipitation greater than 0.1 inch per 24 hours. This requirement may be updated based on amendments to the Lahontan Regional Water Board construction storm water general order.

Fertilizers and Soils

112. To minimize infiltration and water quality degradation, Cannabis cultivators shall irrigate and apply fertilizer to consistent with the crop need (i.e., agronomic rate).

113. When used, cannabis cultivators shall apply nitrogen to cannabis cultivation areas consistent with crop need (i.e., agronomic rate). Cannabis cultivators shall not apply nitrogen at a rate that may result in a discharge to surface water or groundwater that causes or contributes to exceedance of water quality objectives, and no greater than 319 pounds/acre/year unless plant tissue analysis performed by a qualified individual demonstrates the need for additional nitrogen application. The analysis shall be performed by an agricultural laboratory certified by the State Water Board's Environmental Laboratory Accreditation Program.

114. Cannabis cultivators shall ensure that potting soil or soil amendments, when not in use, are placed and stored with covers, when needed, to protect from rainfall and erosion, to prevent discharge to waters of the state, and to minimize leaching of waste constituents into groundwater.

Pesticides and Herbicides

115. Cannabis cultivators shall not apply restricted materials, including restricted pesticides, or allow restricted materials to be stored at the cannabis cultivation site.

116. Cannabis cultivators shall implement integrated pest management strategies where possible to reduce the need and use of pesticides and the potential for discharges to waters of the state.

Petroleum Products and Other Chemicals

117. Cannabis cultivators shall only refuel vehicles or equipment outside of riparian setbacks. Cannabis cultivators shall inspect all equipment using oil, hydraulic fluid, or petroleum products for leaks prior to use and shall monitor equipment for leakage. Stationary equipment (e.g., motors, pumps, generators, etc.) and vehicles not in use shall be located outside of riparian setbacks. Spill and containment equipment (e.g., oil spill booms, sorbent pads, etc.) shall be stored onsite at all locations where equipment is used or staged.

118. Cannabis cultivators shall store petroleum, petroleum products, and similar fluids in a manner that provides chemical compatibility, provides secondary containment, and protection from accidental ignition, the sun, wind, and rain.

119. Use of an underground storage tank(s) for the storage of petroleum products is allowed if compliant with all applicable federal, state, and local laws; regulations; and permitting requirements.

Cultivation-Related Waste

120. Cannabis cultivators shall contain and regularly remove all debris and trash associated with cannabis cultivation activities from the cannabis cultivation site. Cannabis cultivators shall only dispose of debris and trash at an authorized landfill or other disposal site in compliance with state and local laws, ordinances, and regulations. Cannabis cultivators shall not allow litter, plastic, or similar debris to enter the riparian setback or waters of the state. Cannabis plant material may be disposed of onsite in compliance with any applicable CDFA license conditions.

121. Cannabis cultivators shall only dispose or reuse spent growth medium (e.g., soil and other organic media) in a manner that prevents discharge of soil and residual nutrients and chemicals to the riparian setback or waters of the state. Spent growth medium shall be covered with plastic sheeting or stored in water tight dumpsters prior to proper disposal or reuse. Spent growth medium should be disposed of at an authorized landfill or other disposal site in compliance with state and local laws, ordinances, and regulations. Proper reuse of spent growth medium may include incorporation into garden beds or spreading on a stable surface and revegetating the surface with native plants. Cannabis cultivators shall use erosion control techniques, as needed, for any reused or stored spent growth medium to prevent polluted runoff.

Refuse and Domestic Waste

122. Cannabis cultivators shall ensure that debris, soil, silt, bark, slash, sawdust, rubbish, creosote-treated wood, raw cement and concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to any life stage of fish and wildlife or their habitat (includes food sources) does not contaminate soil or enter the riparian setback or waters of the state.

123. Cannabis cultivators shall not dispose of domestic wastewater unless it meets applicable local agency and/or Regional Water Board requirements. Cannabis cultivators shall ensure that human or animal waste is disposed of properly. Cannabis cultivators shall ensure onsite wastewater treatment systems (e.g., septic system) are permitted by the local agency or applicable Regional Water Board.

124. If used, chemical toilets or holding tanks shall be maintained in a manner appropriate for the frequency and conditions of usage, sited in stable locations, and comply with the riparian setback Requirements.

Winterization

125. Cannabis cultivators shall implement all applicable Erosion Control and Soil Disposal and Spoils Management Requirements in addition to the Winterization Requirements below by the onset of the winter period.

126. Cannabis cultivators shall block or otherwise close any temporary access roads to all motorized vehicles no later than the onset of the winter period each year.

127. Cannabis cultivators shall not operate 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.

128. Cannabis cultivators shall apply linear sediment controls (e.g., silt fences, wattles, etc.) along the toe of the slope, face of the slope, and at the grade breaks of exposed slopes to comply with sheet flow length at the frequency specified below.

Slope (percent)	Sheet Flow Length not to Exceed (feet)
0 – 25	20
25 – 50	15

>50	10

129. Cannabis cultivators shall maintain all culverts, drop inlets, trash racks and similar devices to ensure they are not blocked by debris or sediment. The outflow of culverts shall be inspected to ensure erosion is not undermining the culvert. Culverts shall be inspected prior to the onset of fall and winter precipitation and following precipitation events that produce at least 0.5 in/day or 1.0 inch/7 days of precipitation to determine if maintenance or cleaning is required.

130. Cannabis cultivators shall stabilize all disturbed areas and construction entrances and exits to control erosion and sediment discharges from land disturbance.

131. Cannabis cultivators shall cover and berm all loose stockpiled construction materials (e.g., soil, spoils, aggregate, etc.) that are not actively (scheduled for use within 48 hours) being used as needed to prevent erosion by storm water. The cannabis cultivator shall have adequate cover and berm materials available onsite if the weather forecast indicates a probability of precipitation.

132. Cannabis cultivators shall apply erosion repair and control measures to the bare ground (e.g., cultivation area, access paths, etc.) to prevent discharge of sediment to waters of the state.

133. As part of the winterization plan approval process, the Regional Water Board may require cannabis cultivators to implement additional site-specific erosion and sediment control requirements if the implementation of the Requirements in this section do not adequately protect water quality.