



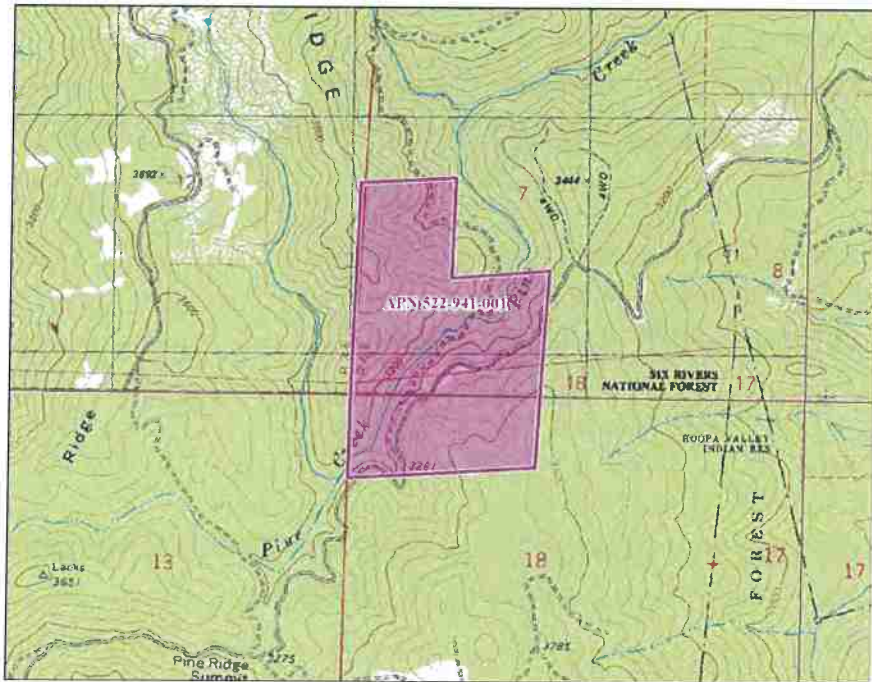
Site Management Plan Technical Report
Order WQ 2019-0001-DWQ
For



Love and Laughter Farms, LLC
APN 522-941-001

Located off
Bair Road,
Near Willow Creek, California

May 2021



Love and Laughter Farms, LLC
 WDID #1_12CC417876
 Humboldt County APN: 522-941-001
 Willow Creek, CA

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I. INTRODUCTION AND PROJECT SUMMARY

Tier 1 and Tier 2 Dischargers enrolled in the State Water Resources Control Board (SWRCB) Cannabis Cultivation Policy Order WQ 2019-0001-DWQ, General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities (General Order) shall submit and implement a Site Management Plan (Plan) that describes how the Discharger is implementing the Best Practicable Treatment or Control (BPTC) measures listed in Attachment A of the State Water Resource Control Board's Cannabis Cultivation Policy (approved April 16, 2019). The Plan may include a schedule to achieve compliance, but all work must be completed by the onset of winter period each year. (The due date does not relieve a Discharger from implementing the interim soil stabilization BPTC measures described in Attachment A.)

This report documents Pacific Watershed Associate's (PWA) Site Management Plan (Plan) for Humboldt County APN 522-941-001, located off Bair Road, near Willow Creek, CA, as shown on Figure 1. This property is located approximately 8.04 miles northwest of Willow Creek, Humboldt County, CA, and hereinafter is referred to as the "Project Site."

The Project Site cultivator ("Discharger") has transferred enrollment in the North Coast Regional Water Quality Control Board (NCRWQCB) Order R1-2015-0023 to the State Water Resources Control Board (SWRCB) Cannabis Cultivation Policy Order WQ 2019-0001-DWQ, General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities (General Order). A Water Resource Protection Plan (WRPP) was prepared by the Discharger and is included as a supplemental attachment to this document. Several remedial measures recommended in the WRPP to comply with the Standard Conditions of the Regional Water Quality Control Board's Order have already been implemented by the landowner.

Based on the total disturbance area, slopes of disturbed areas, and riparian setbacks, this Project Site falls within **Tier 1 Low Risk** of the State Water Resources Control Board (SWRCB) Cannabis Cultivation Policy Order WQ 2019-0001-DWQ, General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities (General Order). Properties that fall into Tier 1 or 2 of the General Order are required to develop a Site Management Plan (Plan). This Plan has been developed for the Discharger based on site inspections made by PWA on the Project Site and references the remedial actions identified in the existing WRPP pertaining to the Project Site. PWA's recommendations for any remediation or corrective actions are a result of water quality requirements under the General Order, including Best Practicable Treatment or Control (BPTCs) designed to meet those requirements. This Plan documents the findings of a site visit and inspection conducted on January 3, 2018 by PWA Principal Earth Scientist Danny Hagans and PWA Staff Geologist Jack Skeahan, and a post-implementation site inspection conducted on November 25, 2020 by PWA Staff Geologist Jack Skeahan, when reconnaissance level investigations of the Project Site were conducted, and the conditions noted.

II. CERTIFICATIONS, LIMITATIONS AND CONDITIONS

This Plan has been reviewed by a California licensed professional geologist at PWA and all information herein, including treatment recommendations, are based on observations, data, and information collected by PWA staff.

This Plan has been prepared to: 1) provide specific BPTC measures to be utilized on the Project Site to minimize potential threats to water quality, 2) provide itemized remedial actions to be taken on the Project Site to correct existing or potential water quality threats or impacts and meet the general waste discharge requirements of the General Order, 3) provide a revised schedule for the implementation of the itemized remedial actions, and 4) provide implementation schedules for all Winterization and BPTC measures. The analysis and recommendations submitted in this Plan and attached WRPP are based on PWA's evaluation of the Project Site and activities which fall under the General Order.

In this Plan we have described the recent and current conditions of the Project Site and any water resource and water quality risk factors we observed during our site inspections. PWA is not responsible for problems or issues we did not observe on our site inspections, or for changes that have naturally occurred or been made to the Project Site after our site review. The interpretations and conclusions presented in this Plan are based on reconnaissance level site investigations of inherently limited scope. Observations are qualitative, or semi-quantitative, and confined to surface expressions of limited extent and artificial exposures of subsurface materials. Interpretations of problematic geologic, geomorphic, or hydrologic features such as unstable hillslopes, erosional processes, and water quality threats are based on the information available at the time of our inspection and on the nature and distribution of existing features we observed on the Project Site.

A schedule of itemized remedial actions that are based on these observations is included with this Plan. The remedial actions provided in this Plan have been developed from professional opinions derived in accordance with current standards of professional practice and are valid as of the date of the most recent or most applicable field inspection. No other warranty, expressed or implied, is made. Furthermore, to ensure proper applicability to existing conditions, the information and remedial actions contained in this report shall be regularly reevaluated and it is the responsibility of the landowner and/or lessee operating under the General Order to ensure that no remedial actions or recommendations are inappropriately applied to conditions on the Project Site that have changed since the recommendations were developed.

If site conditions have changed for any reason, the Project Site should be reevaluated, and the Plan and associated recommendations revised and updated as required. These conditions include any changes in land management activities or Project Site conditions that have occurred since our site visit (regardless of what they are, how they occurred, or who performed them). Similarly, if the landowner/lessee uses portions of this Project Site not identified or covered under the current Plan, this Plan will need to be updated with the new information, including possible additions or changes to the recommended remedial or corrective actions and BPTCs.

The person, persons, business or other entity listed as the enrollee under the General Order is responsible for complying with all the requirements thereunder, including the WRPP and related recommendations and requirements, regardless of who is operating or cultivating on that Project Site. If the enrollee is not the sole landowner and fails to comply with the Order and its

requirements, the landowner or remaining landowners will automatically assume responsibility for the requirements therein, including all related penalties or actions brought by the SWRCB and/or NCRWQCB.

If at any time in the future the Project Site is to transfer ownership, it is the responsibility of the current owner(s), or their representative(s), to ensure that the information and recommendations contained herein are called to the attention of any future owner or agent for the Project Site. Unless this Plan is modified by the SWRCB or NCRWQCB, the findings and recommendations contained in this Plan shall be utilized as a tool while implementing the Plan remedial actions. Necessary steps shall be taken to see that contractor(s) and subcontractor(s) carry out such recommendations in the field in accordance with the most current Plan and BPTC standards.

PWA will be responsible for the data, interpretations and recommendations developed by PWA, but will not be responsible for the interpretation by others of that information, for implementation of corrective actions by others, or for additional or modified work arising out of those plans, interpretations, and recommendations. PWA assumes no liability for the performance of other workers or suppliers while following PWA's recommendations in the Plan, unless PWA is under contract to perform or oversee those activities. Additionally, PWA is not responsible for changes in applicable or appropriate standards beyond our control, such as those arising from changes in legislation or regulations, or the broadening of knowledge which may invalidate or alter any of our findings or recommended actions.

Any Plan review or construction management services that may be needed or identified in the recommendations sections of this Plan are separate tasks from the preparation of this Plan and are not a part of the contract under which this Plan was prepared. If requested, additional PWA field inspections, surveys, Plan revisions/updates, project layout, design, permitting, construction oversight/management, or other related services arising from tasks described and recommended in the Plan may be performed under separate agreements requiring advance notice and contracting.

PWA's services consist of professional opinions and recommendations made in accordance with generally accepted principles and practices. No warranty, expressed or implied, or merchantability or fitness, is made or intended in connection with our work, by the proposal for consulting or other services, or by the furnishing of oral or written reports or findings. This Plan, as written or as modified in writing, takes precedence over all other communication. If the client desires assurances against project failures, they shall obtain appropriate insurance through their own insurance broker or guarantor.

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Plan finalized on: 5/6/2021

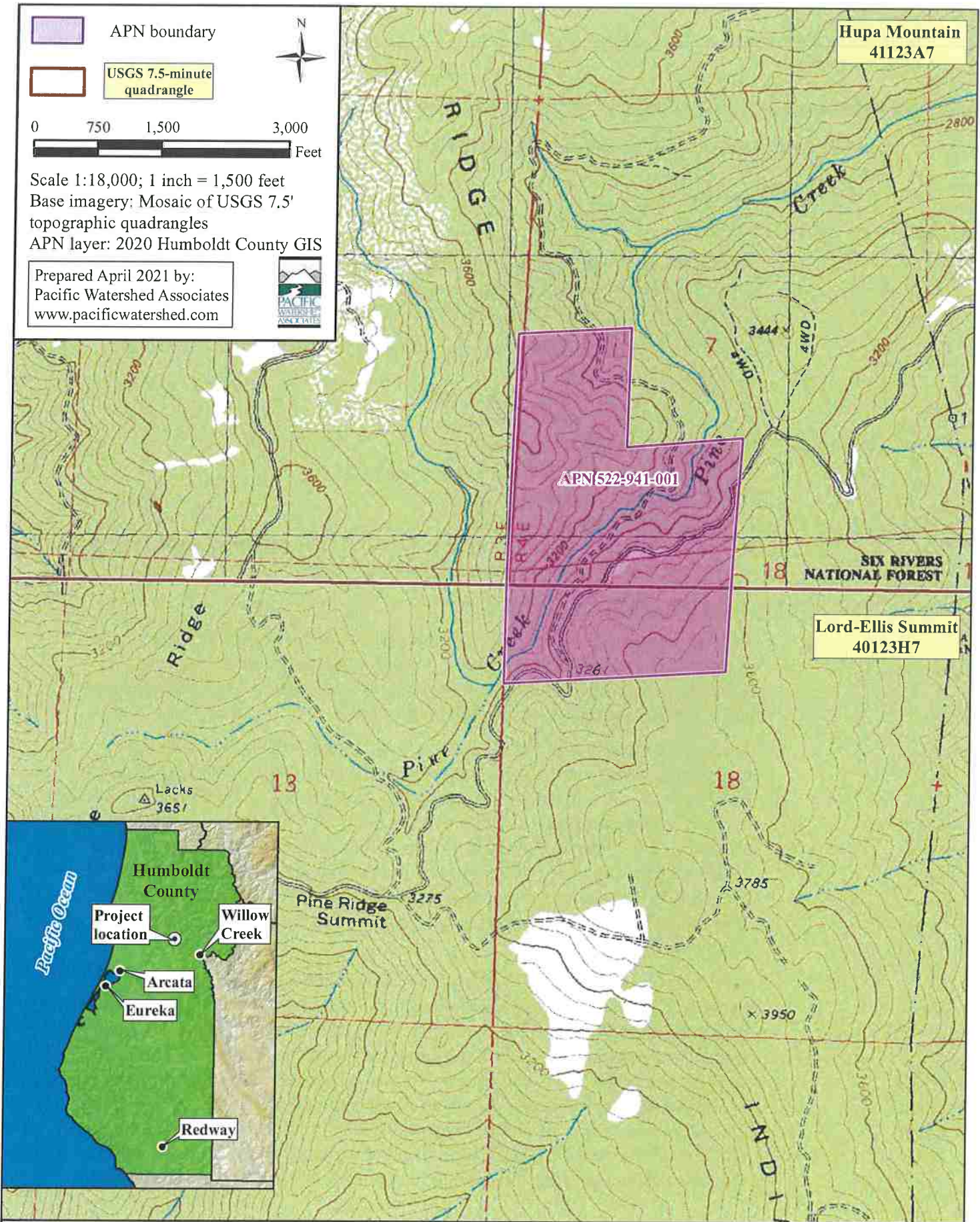


Figure 1. Site Management Plan Location Map for Love and Laughter Farms, APN 522-941-001, located off Bair Road near Willow Creek, Humboldt County, California.

III. SITE MANAGEMENT PLAN – ORDER WQ 2019-0001-DWQ REQUIREMENTS

1.0 SEDIMENT DISCHARGE BPTC MEASURES

1.1 Site Characteristics

1.1.1 Site Map

See the attached Site Map, Figure 2, showing access roads, vehicle parking areas, streams, stream crossings, cultivation site(s), disturbed areas, buildings, and other relevant site features as applicable which are listed below:

- for Region 1 dischargers: legacy waste discharge issues that exist on the Project Site
- erosion prevention BPTC measures
- sediment control BPTC measures
- winterization BPTC measures
- fertilizers and amendments storage locations
- petroleum product storage locations
- trash/refuse storage locations
- Onsite Wastewater Treatment System(s) (OWTS), including any domestic wastewater treatment, storage, or disposal area(s)

1.1.2 Access, Maintenance, and Storm Water

Describe the access road conditions including estimating vehicle traffic, road surface (e.g., paved, rocked, or bare ground), and maintenance activities. Describe how storm water is drained from the access road (e.g., crowned, out slope, armored ditch, culverts, rolling dips, etc.).

There are a total of 2.03 miles of access road on the Project Site, with the majority constructed as logging roads many decades ago. At this time, Access Roads #1 - #6 are currently in use and Old Access Road, located off Access Road #1 near Cultivation Area (CA) #2 is not in use at this time. Abandoned legacy roads were not observed on the Project Site during the field investigations. In addition, there are a total of 0.79 miles of county-maintained Bair Road on the Project Site. Property road easements include the segment of Access Road #1 from Bair Road to the intersection with Access Road #2 and the on-property segment of Access Road #2.

Multiple rolling dips have been recently constructed on the main access road (Access Road #1) through the Project Site to disconnect concentrated road runoff from recently upgraded stream crossings (SC), improve overall road drainage, and decrease surface erosion. The rolling dips were constructed concurrently with the installation of a bridge at SC #1; culvert installation and replacement at SC #5 and SC #6, respectively; and stream crossing maintenance at SC #2, SC #3, and SC #4, which are described in more detail in Section 1.1.3, below. Two sections of inboard ditch (IBD) draining to the Class I stream at SC #1 were shortened as much as feasible, and grade control rock armor was installed as

close as possible to the existing hillslope protection rock armor and at the existing break in slope to mitigate for any erosion or head cut migration. Additional rolling dips and water bars were installed on multiple access roads on the Project Site at the locations shown on Figure 2. The installation of these drainage features has resulted in the disconnection of previously hydrologically connected road reaches from stream crossings, improved road drainage, and reduced surface erosion.

While not considered a permanent road drainage feature, water bars were installed on a short segment of access road that is no longer in use (Old Access Road) and are also currently proposed for a short segment of Access Road #4 due to the existing layout of the road segment and the limited space available for rolling dip construction. The proposed water bar installation recommendation may be revised to include installation of permanent rolling dips based on equipment access and available work area on Access Road #4. The Project Site is typically only accessed in the dry season by a limited number of people and the water bars proposed for Access Road #4 can be easily reconstructed, as needed, prior to the onset of the wet season. Proposed water bars are located on road segments that are only accessed by the landowner and not on shared-use easement roads.

Cleared and terraced areas on the Project Site are not delivering sediment to streams. CA #2 (Lower CA) is on a low gradient pad, located far from surface waters and has been equipped with a small earthen berm around the cultivation area perimeter to contain any runoff. The western portion of the cultivation area at CA #2 (Lower CA) is proposed to be remediated and cultivation from the western portion relocated to CA #1 (Upper CA), which is located on a ridgetop far from surface waters (see Figure 2). Alternatively, this area may be converted to a domestic vegetable garden or orchard pending agency approval. The eastern portion of CA #2 is proposed to continue as an active cultivation area pending agency approval. In addition, there was a thin section of unstable sidecast fill material on the eastern edge of the pad at CA #2. Although the fill material was located far from surface waters, it was excavated due to the unstable nature of the material and relatively steep slope below. The slope was laid back to a stable angle and appropriate BPTCs (e.g., straw mulch and compaction with heavy equipment) were implemented on the disturbed area (see Table 1, below, for specific BPTC measures). Excavated material was spoiled locally in a stable, low gradient location immediately east of CA #2 (Lower CA). Any remaining disturbed areas at the two cultivation areas or elsewhere on the Project Site should be treated with appropriate BPTC measures to protect water quality.

It is recommended that all water tanks on the Project Site be equipped with shut-off float valves, where applicable, to prevent overtopping and all plumbing infrastructure be inspected and repaired as needed to prevent leaks. The 550-gallon water tank near the drying shed is currently equipped with a shut-off float valve. Any unused water contained in these tanks (or any other water tanks on

the Project Site) should be repurposed and not discharged in such a manner as to create erosion and sediment mobilization.

Table 1. Prioritized implementation schedule for Best Practicable Treatment or Controls (BPTC)

Schedule	Map Point or Location	Summary of Corrective Actions/Recommendations (see more detailed listing of BPTCs and corrective actions in Appendix A of the Cannabis General Order and the attached WRPP)
<p>CA – Cultivation Area DA – Disturbed Areas OWTS – Onsite Wastewater Treatment System SC – Stream Crossing RD – Rolling Dip W – Winterization W – Water Bar <E> – Existing <P> – Proposed</p>		
<u>Cultivation Areas</u>		
Annually by Nov 15	<P> BPTC/W; CA #1 (Upper CA) and CA #2 (Lower CA)	<ol style="list-style-type: none"> 1) Plastic tarps will be removed from hoop houses over the winter season if used. 2) Plant cover crops, tarp, or otherwise cover any growing medium in beds, pots, or piles to prevent nutrient leaching and transport. 3) Unless areas are naturally revegetated, seed and mulch all bare soil areas with 1) barley or wheat-based erosion control seed that does not contain Annual or Perennial Ryegrass and 2) weed-free straw. 4) All erosion control measures will be monitored during and after each storm event that produces at least 0.5 in/day or 1.0 in/week of precipitation and repaired or replaced as needed.
<u>Stream Crossings</u>		
10/15/2021 and ongoing	<E> BPTC/W; SC #1	<ol style="list-style-type: none"> 1) Monitor SC #1 on a regular basis to ensure functionality and that erosion or sediment delivery to watercourses is not occurring. Stream Crossing #1 has been upgraded according to current standards (see LSAA Notification No. 1600-2017-0351-R1).
10/15/2021 and ongoing	<E> BPTC/W; SC #2 – SC #6	<ol style="list-style-type: none"> 1) Monitor and maintain the culvert inlets/outlets and monitor SC #2 – SC #6 on a regular basis to ensure functionality and that erosion or sediment delivery to watercourses is not occurring. 2) Stream Crossings #2 - SC #6 were upgraded according to current standards (see LSAA Notification No. 1600-2017-0351-R1).
<u>Roads</u>		
10/15/2021 and ongoing	<P> BPTC; WB <E> BPTC; RD	<ol style="list-style-type: none"> 1) <P>: Construct water bars or rolling dips on Access Road #4 to reduce hydrologic connectivity and sediment delivery to the stream network at the locations shown on Figure 2. 2) <E>: Monitor and maintain existing rolling dips and water bars, replacing/reshaping as needed to maintain functionality.
<u>Disturbed Areas</u>		
10/15/2021 and Annually by Nov 15	<P> BPTC/W; DA	<ol style="list-style-type: none"> 1) To reduce surface erosion, seed and mulch all bare soil areas with 1) barley or wheat-based erosion control seed that does not contain Annual or Perennial Ryegrass and 2) weed-free straw. 2) After the completion of proposed relocation and restoration activities at the CA #2 (Lower CA), seed and mulch all bare soil areas to reduce surface erosion with 1) barley or wheat-based erosion control seed that does not contain Annual or Perennial Ryegrass and 2) weed-free straw. Implement any additional erosion and sediment control BPTC measures as needed to protect water quality and encourage revegetation and stabilization of the area. 3) All erosion control measures will be monitored during and after each storm event that produces at least 0.5 in/day or 1.0 in/week of precipitation and repaired or replaced as needed.

Schedule	Map Point or Location	Summary of Corrective Actions/Recommendations (see more detailed listing of BPTCs and corrective actions in Appendix A of the Cannabis General Order and the attached WRPP)
CA – Cultivation Area DA – Disturbed Areas OWTS – Onsite Wastewater Treatment System SC – Stream Crossing RD – Rolling Dip W – Winterization W – Water Bar <E> – Existing <P> – Proposed		
<u>Fertilizer Storage</u>		
10/15/2021 and ongoing	<E> Fertilizer storage (landscaping trailer)	1) Fertilizer containers should continue to be stored under a roof (e.g., landscaping trailer), off the ground, with adequate secondary containment. If stored or stockpiled outdoors, potting soils, compost, and fertilizers should be fully tarped or seeded in a stable location with runoff being diverted away from the storage area(s), so that there is no chance of nutrient leaching or delivery to surface waters. In addition, install a temporary perimeter sediment barrier (compost berms, temporary silt dikes, fiber rolls, silt fences, sandbags, gravel bags, or biofilter bags) surrounding the stockpile area.
<u>Petroleum Storage</u>		
10/15/2021 and ongoing	<P> BPTC; Petroleum storage	1) Petroleum products and other non-cultivation related chemicals should continue to be stored properly and equipped with adequate secondary containment basins capable of containing the entire stored volume.
<u>Trash/Refuse and Domestic Wastewater</u>		
10/15/2021 and ongoing	Trash/Refuse	1) Continue to collect and properly store household and cultivation-related wastes before disposing of these materials at an approved waste facility.
10/15/2021 for OWTS 10/15/2021 for pit toilet	OWTS, portable backpacking/camping bucket toilet and pit toilet	1) The Order requires one or more county-approved (permitted) OWTS on the Project Site. As no permitted OWTS currently exists on the Project Site, continue working towards designing, permitting, and installing a OWTS on the Project Site or receive approval for the portable backpacking/camping bucket toilet from Humboldt County Division of Environmental Health (HCDEH). Proof of permitting through the (HCDEH) is required onsite at all times for any existing OWTS. 2) Continue using the portable backpacking/camping bucket toilet and properly handling and disposing of domestic wastewater. Maintain the portable backpacking/camping bucket toilet in an easily accessible location near activity areas and outside of riparian setbacks. Continue utilizing the portable backpacking/camping bucket toilet until the OWTS can be designed, permitted, and constructed or the portable backpacking/camping bucket toilet has been approved by HCDEH. Keep records of cleaning, maintenance and disposal procedure and schedule for the portable backpacking/camping bucket toilet onsite. 3) Properly decommission the existing pit toilet (remove existing infrastructure and fill pit) following HCDEH guidelines and recommendations.
All BPTC measures will conform to the State Water Resources Control Board Order WQ 2019-0001-DWQ guidelines. All BPTC measures are outlined in Section 2 of Attachment A of the General Order.		

1.1.3 Stream Crossings

Describe any vehicle stream crossing including the type of crossing (e.g., bridge, culvert, low water, etc.).

There are six stream crossings on the Project Site (Figure 2, also see Table 2, below), SC #1 - #3 are located on the main road (Access Road #1), SC #4 is located on a low use road (Access Road #5), and SC #5 and SC #6 are located on

Access Road #2 in the northernmost portion of the Project Site. Access Road #2, #3, and #5 do not access any cultivation-related areas or infrastructure.

Stream Crossing #1 (SC #1) had a significantly undersized 60-inch diameter corrugated metal pipe (CMP) installed on main stem Pine Creek, a Class I watercourse (see Figure 2). The stream crossing exhibited evidence of overtopping, likely from hydraulic exceedance of the culvert, resulting in erosion of the roadbed and a portion of the outboard fillslope washing out. The culvert was removed in late 2019 and the remaining road fill excavated. A 13-foot-wide stream channel, consistent with expected discharge estimates and stream modeling calculations, was established through the stream crossing and a 12-foot wide by 60-foot-long steel I-beam bridge with concrete abutments and decking was installed. Rock armor hillslope protection was placed on both streamside hillslopes and the road drainage features previously described in Section 1.1.2, above, were constructed. All bare soil areas were treated with straw mulch for erosion control and both road approaches to the new bridge were rocked.

Stream Crossing #2 is a Class III watercourse with a properly sized 24-inch diameter corrugated plastic pipe (CPP) and 20-foot long CPP downspout. This stream crossing was upgraded with a single post trash rack installed upstream of the culvert inlet to reorient any woody debris in transport parallel to the culvert alignment and minimize the potential for plugging. Approximately 5 yd³ of 0.5-1.5-foot diameter rock was installed below the downspout outlet to mitigate for splash erosion. The downspout was slightly separated from the culvert prior to upgrade activities but has since been repositioned and the connection secured. A rolling dip was installed up the right road approach to hydrologically disconnect the stream crossing and a critical dip was installed on the left road approach to prevent stream diversion in the event of culvert plugging or hydraulic exceedance.

Stream Crossing #3 is a Class III watercourse with an 18-inch diameter corrugated plastic pipe (CPP). The culvert is undersized for the expected 100-year peak stream flow and associated debris based on culvert sizing calculations; however, the existing culvert diameter appears adequate based on PWA field observations and measured stream channel widths for this low order stream. It is not recommended to replace the existing culvert at this time, although regular monitoring and maintenance is recommended to be conducted at this location. A recently fallen tree was removed from directly upstream of the culvert inlet. A rolling dip was installed up the left road approach to hydrologically disconnect the stream crossing and a critical dip was installed on the right road approach to prevent stream diversion in the event of culvert plugging or hydraulic exceedance.

Stream Crossing #4 is a Class III watercourse with a properly sized 24-inch diameter corrugated plastic pipe (CPP). A 1-2-foot diameter boulder was located at the culvert outlet that may have led to blocking of the outlet with debris. The boulder at the culvert outlet was removed to prevent plugging of the culvert. A

rolling dip was installed up the left road approach to hydrologically disconnect the stream crossing. There is a short segment of right road which slopes toward the crossing, so diversion potential does not exist at this location. Due to this short road segment, no observed evidence of road surface erosion or sediment delivery to the stream, and limited road length and locations for a road drainage feature outlet no rolling dip was installed at this location. This road segment should be monitored on a regular basis and if surface erosion or sediment delivery to the stream crossing is observed appropriate road drainage treatment options should be considered. These treatment options may include rocking of the roadbed or installation of a rolling dip or other road drainage feature at a suitable location to mitigate as much sediment delivery potential to the stream as possible.

Table 2. Stream Crossings – Drainage Areas and Culvert Sizing Recommendations^{1,2}

Stream crossing number	Existing culvert diameter (in)	Watershed area (acres)	Q100 – discharge estimate for 100-yr storm (cfs)	Recommended culvert diameter (in) for the 1.0 HW/D ratio	Recommended culvert diameter (in) for the 0.67 HW/D ratio
SC #1	N/A	992	1498	BRIDGE	BRIDGE
SC #2	24	8	12	24	36
SC #3	18	12	18	30	42
SC #4	24	4	5	24	24
SC #5	N/A	5	7	24	30
SC #6	18	19	29	36	48

¹ Assumes mean annual precipitation of 54 inches and 0.30 runoff coefficient (C). A headwater depth ratio (HW/D) of 1.0 was used to determine culvert sizing based on field observations of the stream channel, current and proposed crossing design and sediment and woody debris in transport.
² The 100-year Return-Period precipitation data was sourced from: http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=ca

Stream Crossing #5 is a Class II watercourse that had no observed formal drainage structure. The stream was diverting down the right inboard ditch (IBD) for approximately 200-250 feet where it crossed the road at a water bar resulting in a small gully in the outboard fillslope of the road. This stream crossing was upgraded with a properly sized 24-inch diameter culvert and approximately 10 yd³ of 0.5-1.5-foot diameter, locally derived rock was installed to armor the lower ¾ of the outboard fillslope. A critical dip was installed on the right road approach to prevent stream diversion in the event of culvert plugging or hydraulic exceedance and to disconnect the IBD from the stream crossing. Due to the proximity of SC #6 to the left, a rolling dip was not able to be installed at this

location, although a rolling dip was installed up the left road approach of SC #6 to hydrologically disconnect both stream crossings.

Stream Crossing #6 is a Class II watercourse that previously had an undersized 18-inch diameter culvert. This stream crossing was upgraded with a properly sized 30-inch diameter culvert. A single post trash rack was installed upstream of the culvert inlet to reorient any woody debris in transport parallel to the culvert alignment and minimize the potential for plugging. Approximately 10 yd³ of 0.5-1.5-foot diameter, locally derived rock was installed to armor the lower ¾ of the outboard fillslope. A rolling dip was installed up the left road approach to hydrologically disconnect the stream crossing and SC #5 located a short distance down the right road.

Stream crossings were upgraded as per the approved Lake or Streambed Alteration Agreement (LSAA) Notification No. 1600-2017-0351-R1 and the approved Notice of Applicability (NOA) for coverage under the Cannabis General Water Quality Certification (WDID #1B20050CHUM). Some stream crossing culvert diameters that were installed or remain in use differ from the recommended culvert diameters listed in Table 2 (e.g., SC #3, SC #6). Culvert diameters for these stream crossings were modified based on site-specific observations, channel measurements, and local conditions.

1.1.4 Legacy Waste Discharge Issues for Region 1

For Region 1 Dischargers, identify, discuss, and locate on the site map any legacy waste discharge issues that exist on the property.

No legacy waste discharge issues were observed on the Project Site.

1.2 Sediment Erosion Prevention and Sediment Capture

Moderate risk Tier 1 or Tier 2 Dischargers are required to submit a Site Erosion and Sediment Control Plan. Those Dischargers may refer to that plan rather than repeat it here.

The Project Site is designated as a **Tier 1 Low Risk** Discharger with disturbed areas on slopes greater than 30%. A Site Erosion and Sediment Control Plan (SESCP) is currently being developed for the Project Site. Any disturbed or bare soil areas on the Project Site with the potential for erosion or sediment delivery which may threaten water quality will be addressed as a part of the SESCO. Once completed and submitted, please refer to the SESCO for additional information regarding sediment erosion prevention and sediment capture. Generalized treatment recommendations and BPTC measures for disturbed areas are included below in Table 1.

1.2.1 Erosion Prevention and Sediment Control Measures: BPTCs, Schedule, and Map

The description shall address physical BPTC measures, (e.g., placement of straw mulch, plastic covers, slope stabilization, soil binders, culvert outfall armoring, placement of /silt fences, fiber rolls, or settling ponds/areas, etc.) and biological BPTC measures (vegetation preservation/replacement, vegetated outfalls, hydro seeding, etc.).

Refer to Table 1, above, for a description of erosion prevention and sediment capture BPTC measures that have been or will be implemented to prevent or limit erosion and capture sediment that has been eroded. The table also includes an implementation schedule for BPTC measures that have not yet been implemented. Refer to the site map, Figure 2, for the location of erosion prevention and sediment control BPTC measures.

Specific erosion prevention and sediment control measures intended to prevent or limit erosion and capture sediment that has been eroded shall be implemented prior to the onset of each wet season and include the placement of straw mulch on bare soil areas as needed, planting of cover crops at cultivation areas, preservation/replacement of existing vegetative cover, indoor storage of bulk potting soil, slope stabilization, and culvert outfall and fillslope armoring. These measures are already in practice or will be implemented as needed prior to the wet season at CA #1 and CA #2, stream crossings, road segments, and any additional areas on the Project Site with the potential to threaten water quality.

1.2.2 Maintenance Activities – Erosion Prevention and Sediment Control

1.2.2.1 *Monitoring and Maintenance*

Describe how the erosion prevention and sediment control BPTC measures will be monitored and maintained to protect water quality.

In general, the Project Site needs to be monitored throughout the year to identify any problems that might arise and to monitor the effectiveness of corrective actions when completed. Refer to Table 1 for recommendations relating to existing and proposed BPTC measures that will require monitoring and/or maintenance.

The goal of the monitoring is to ensure the original problem/feature has been effectively treated and that the causal mechanisms (ineffective road drainage, improperly designed stream crossings, etc.) are not continuing to threaten or cause water quality degradation. If additional deficiencies develop, or individual problems arise, then corrective actions must be implemented immediately.

Periodic inspections should include visual inspection of the site, including any management measures/practices, to ensure they are being implemented correctly and are functioning as expected. Inspections include photographic documentation of any controllable sediment discharge sites, as identified on the site map, and a visual inspection of those locations on the site where pollutants or wastes, if uncontained, could be transported into receiving waters, and those locations where runoff from roads or developed areas drains into or towards surface water.

At a minimum, sites shall be inspected at the following times to ensure timely identification of changed site conditions and to determine

whether implementation of additional management measures is necessary to prevent or minimize discharges of waste or pollutants to surface water:

- 1) Before and after any significant alteration or upgrade to a given stream crossing, road segment, or other controllable sediment discharge site. Inspection should include photographic documentation, if possible.
- 2) Prior to October 15th to evaluate site preparedness for storm events and stormwater runoff.
- 3) Following the accumulation of 3 inches cumulative precipitation (starting September 1st) or by December 15th, whichever is sooner.
- 4) Following storm events that produce 0.5 inches in 24 hours or 1 inch within seven consecutive days of precipitation (Cannabis Cultivation Policy: Attachment A). Precipitation data can be obtained from the National Weather Service by entering the site zip code at <http://www.srh.noaa.gov/forecast>; Pick the nearest or most relevant zip code and then select the 3-day history that will also show precipitation totals.

1.2.2.2 *Captured Sediment*

Describe how any captured sediment will be either stabilized in place, excavated and stabilized on-site, or removed from the site.

In the event that any excess sediment is generated, all captured sediment will be stabilized and stored in a stable location onsite with no threat of delivery to surface waters. All applicable BPTC measures will be implemented to prevent sediment mobilization and encourage revegetation and stabilization.

1.2.3 Erosion Control BPTC Measures – Interim and Long-term

Describe the interim soil stabilization, if applicable and long-term BPTC measures implemented to prevent sediment transport at each identified disturbed area(s) and improperly constructed features.

Please refer to Table 1, above, for more information regarding interim and long-term erosion control BPTC measures and implementation schedules.

2.0 FERTILIZER, PESTICIDE, HERBICIDE, & RODENTICIDE BPTC MEASURES

2.1 Summary Table

Provide a summary table that identifies the products used at the site, when they are delivered to the site, how they are stored, and used at the site. If products are not consumed during the growing season, describe how they are removed from the site or stored to prevent discharge over the winter season.

See the summary in Table 3 that identifies the products utilized onsite for cultivation purposes, when they are delivered to the site, and how they are stored and used at the site. Table 3 also describes how products are removed from the site or stored to prevent discharge if they are not consumed before the winter season. The landowner reported no pesticide, herbicide, or rodenticide use on the Project Site.

2.2 Site Map

The site map, Figure 2, identifies the location of fertilizer and amendment storage. As the landscaping trailer is a mobile unit, the fertilizer storage location is approximate and currently shown next to CA #1.

Table 3. Fertilizer and Amendment Product List

Product		When Delivered	How Stored	How Used	How Products Are Removed from the Site or Stored to Prevent Discharge If They Are Not Consumed Before the Winter Season
FERTILIZERS AND AMENDMENTS	Earthjuice Rainbow Pro Grow	Purchased and delivered to Project Site as needed per landowner.	Kept in original containers inside plastic secondary containment bins and stored inside the landscaping trailer.	Applied as directed on product labels.	If there is any unused product left at the end of the season, it is removed from the Project Site along with the landscaping trailer and utilized in a home garden.
	Earthjuice Rainbow Pro Bloom				
	Organic soluble seaweed powder (brand varies)				
	Organic mycorrhizae powder (brand varies)				
	Organic essential oil soap (usually Dr. Bronner peppermint soap)				
	Organic molasses (brand varies)				
	Organic bat guano (brand varies)				
	Organic silica powder (brand varies)				

2.3 Bulk Fertilizers and Chemical Concentrates

Describe how bulk fertilizers and chemical concentrates are stored, mixed, applied, and how empty containers are disposed.

At the time of the PWA site inspection cultivation activities were not occurring, and fertilizers, amendments, and chemical concentrates were not observed onsite. When cultivation activities are occurring, fertilizer, soil amendments, or any plant-related chemical not directly being used should continue to be stored in the landscaping trailer, which is brought onsite as needed and temporarily parked at the approximate location

shown on Figure 2. Potting soil is amended and reused each year, stored in place at the cultivation areas and either planted with cover crops or mulched with straw prior to the wet season.

According to the landowner, fertilizers and amendments are applied at the manufacturer recommended rate or less. If fertilizers and amendments contain ammonium nitrate, they will be stored in separate locations away from petroleum products. Once fertilizers and amendments are brought onsite ensure that these items do not contain ammonium nitrate and if they do that they are stored properly and in a separate location from petroleum products.

Nutrient containing amendments and all chemical materials should continue to be stored indoors or completely tarped outdoors during the rainy season. If tarped outdoors, chemicals should not be stored directly on the ground surface and surface runoff from precipitation should be diverted away from the storage area. At the completion of harvesting activities, all potting soil should be planted with a winter cover crop or consolidated as much as feasible and covered with plastic sheeting or tarps to prevent mobilization and leaching of any residual chemicals during the wet season.

2.4 Spill Prevention and Cleanup

The likelihood of chemical spills will be minimized by storing all fertilizers and other cultivation-related chemicals off the ground, in designated secondary containment, and in the enclosed landscaping trailer shown on Figure 2. In the event of a spill, cleanup will be initiated as quickly as possible after occurrence. In the event of spills on pavement or concrete, solid materials will be removed utilizing a broom/brush and pan or vacuum. Affected paved surfaces will be decontaminated using a mild detergent and water. Liquid chemical spills on pavement or concrete will be captured using absorbent materials. Spills of solid or liquid materials on soil will be cleaned by removal of the spilled materials and contaminated soil using a shovel and/or absorbent materials. Contaminated soil will be stored in a labeled sealed container and disposal of contaminated materials will be conducted in accordance with manufacturer's instructions and local regulations. A spill kit is located onsite and stored in the landscaping trailer with the petroleum products (Figure 2).

3.0 PETROLEUM PRODUCT BPTC MEASURES

3.1 Summary Table

Table 4, below, identifies the petroleum products utilized onsite for cultivation and other purposes, when they are delivered to the site, and how they are stored and used at the site.

3.2 Site Map

The site map, Figure 2, identifies petroleum product storage and use locations.

3.3 Handling

Describe how fuels, lubricants, and other petroleum products are stored, mixed, applied, and empty containers are disposed.

Petroleum products are stored within the landscaping trailer and include secondary containment. See comment in Section 2.3, above, related to storage of fertilizers and amendments containing ammonium nitrate. According to the landowner, the generator and gas-powered water pump are equipped with secondary containment. The water pump is located in a small covered shed near the cabin used for drying. When petroleum products are onsite ensure that these items are equipped with secondary containment basins with sufficient capacity to contain the full volume of petroleum products in the event of a spill or leak. Metal secondary containment basins are recommended for any gas-powered item with a motor that may generate heat for fire prevention. Ensure any items that may generate heat, flames, or sparks are located a sufficient distance away from combustible materials.

For more information regarding storage, application, and disposal of full and empty containers of petroleum products, see Table 4, below.

Table 4. Petroleum Product List

Product Name	When Delivered	How Stored	How Used	How Products Are Removed from the Site or Stored to Prevent Discharge If They Are Not Consumed Before the Winter Season
Gasoline	Purchased and delivered to Project Site as needed by landowner.	Gasoline is stored in the landscaping trailer shown on Figure 2. Propane is stored under the oven table which is used at the Cabin (residence) near CA #1 (Upper CA).	Generator, water pump, propane oven, etc.	Unused petroleum products are stored in secondary containment in the landscaping trailer shown on Figure 2. Any unused gasoline or propane is transported offsite and used for domestic purposes. Empty containers are transported offsite and recycled using residential recycling collection services or taken to the transfer station in McKinleyville.
Propane				

3.4 Spill Prevention and Cleanup

The likelihood of chemical spills will be minimized by storing all petroleum products off the ground, in designated secondary containment, and in enclosed structures. In the event of a spill, cleanup will be initiated as quickly as possible after occurrence. Liquid petroleum spills on pavement or concrete will be captured using absorbent materials. Spills of liquid materials on soil will be cleaned by removal of the spilled materials and contaminated soil using a shovel and/or absorbent materials. Contaminated soil will be

stored in a labeled sealed container. Disposal of contaminated materials will be conducted in accordance with manufacturer's instructions and local regulations. A spill kit is located onsite and stored in the landscaping trailer with the petroleum products (Figure 2).

4.0 TRASH/REFUSE, AND DOMESTIC WASTEWATER BPTC MEASURES

4.1 Types, Containment, and Disposal of Trash/Refuse

Describe the types of trash/refuse that will be generated at the site. Describe how the material is contained and properly disposed of.

Trash and refuse typically includes domestic waste such as general household trash and organic materials. Cultivation-related waste material includes organic wastes (cannabis stems, leaves, roots, etc.), and may include plastic pots and planting materials, plastic containers, and degraded plastic tarps, although these materials are reused as much as possible. Tarps, if used, are rolled up and stored indoors prior to the wet season. Waste is stored in lidded trash cans located at the cabin and taken offsite to be disposed of through a trash and recycling collection service or taken to the transfer station in McKinleyville on a regular basis as needed.

4.1.1 Site Map

The site map, Figure 2, shows trash/refuse storage locations.

4.2 Domestic Wastewater Generation and Disposal

4.2.1 Domestic Wastewater Generation

Describe the number of employees, visitors, or residents at the site [per unit time].

Describe the types of domestic wastewater generated at the site (e.g., household generated wastewater or chemical toilet).

According to the landowner, there are no permanent residents onsite, only two seasonal employees from April/May to October/November and occasionally 1 – 2 visitors per month during the cultivation season.

Household wastewater is generated onsite (cooking, cleaning, etc.) along with use of the portable toilet by the seasonal employees and any visitors.

4.2.2 Domestic Wastewater Disposal

4.2.2.1 Permitted onsite wastewater treatment system (e.g., septic tank and leach lines).

There is no permitted Onsite Wastewater Treatment System (OWTS) currently on the Project Site. An OWTS will need to be designed by a qualified professional and permitted through the Humboldt County Division of Environmental Health (HCDEH) prior to installation. One portable backpacking/camping bucket toilet is currently in use on the Project Site. The portable toilet should continue to be used until a

complete OWTS is permitted and installed (see Section 4.2.2.2, below) or approval for use of the portable backpacking/camping bucket toilet has been received from the HCDEH. Once permitted or approved, proof of permitting or approval through the HCDEH is required at all times onsite for either the OWTS or the portable backpacking/camping bucket toilet .

4.2.2.2 *Chemical toilets or holding tank. If so, provide the name of the servicing company and the frequency of service.*

There is currently one portable backpacking/camping bucket toilet currently in use on the Project Site. Portable toilets should be easily accessible and located near activity areas and outside of riparian setbacks. Continue utilizing the portable backpacking/camping bucket toilet until the OWTS can be designed, permitted, and constructed or use of the portable toilet has been approved by the HCDEH. Keep records of cleaning, maintenance and disposal procedure, and schedule for the portable backpacking/camping bucket toilet onsite.

4.2.2.3 *Outhouse, pit privy, or similar. Use of this alternative requires approval from the Regional Water Board Executive Officer; include the approval from the Executive Officer and any conditions imposed for use of this alternative.*

There is one pit toilet on the Project Site (Figure 2) that is no longer in use. The pit toilet has been securely covered in the event that a system of this type is permitted or approved for use by the HCDEH in the future. If this pit toilet cannot be permitted or approved, this feature should be properly decommissioned (infrastructure removed and pit filled in) following HCDEH guidelines and recommendations.

4.2.3 Site Map

The site map, Figure 2, identifies the locations of any domestic wastewater treatment, storage, or disposal area(s). The portable backpacking/camping bucket toilet does not currently occupy a fixed location on the Project Site but is usually located on one of the low gradient areas between CA #1 and CA #2.

5.0 WINTERIZATION BPTC MEASURES

5.1 Winterization Activities

Describe activities that will be performed to winterize the site and prevent discharges of waste. The description should address all the issues listed above.

The landowner will implement appropriate BPTCs to adequately contain any stockpiled potting soil or waste material and prevent mobilization and delivery to surface waters or groundwater.

Winterization measures applied to bare soil areas, garden areas, and cultivation areas include the following: 1) removal of plastic covers on greenhouses, 2) mulching bare soil areas and applying native erosion control seed, 3) planting of cover crops, 4) planting of winter crops, and 5) disconnecting water lines not in use. Amendments will be brought inside during the wet season and stored indoors or under tarps such that they are protected from the elements.

Please refer to Table 1 for more information regarding winterization activities and implementation schedules.

5.2 Maintenance of Drainage or Sediment Capture Features

Describe maintenance of all drainage or sediment capture features (e.g., drainage culverts, drainage trenches, settling ponds, etc.) to remove debris, soil blockages, and ensure adequate capacity exists.

Please refer to Table 1 for more information regarding maintenance of drainage and sediment capture feature BPTCs and implementation schedules.

5.3 Revegetation

Describe any revegetation activities that will occur either at the beginning or end of the precipitation season.

No land disturbance activities requiring winter revegetation are planned or anticipated with the exception of any application of native erosion control seed or implementation of additional erosion or sediment control BPTCs as needed to protect water quality.

5.4 BPTC Measures That Cannot Be Completed Before Onset of Winter

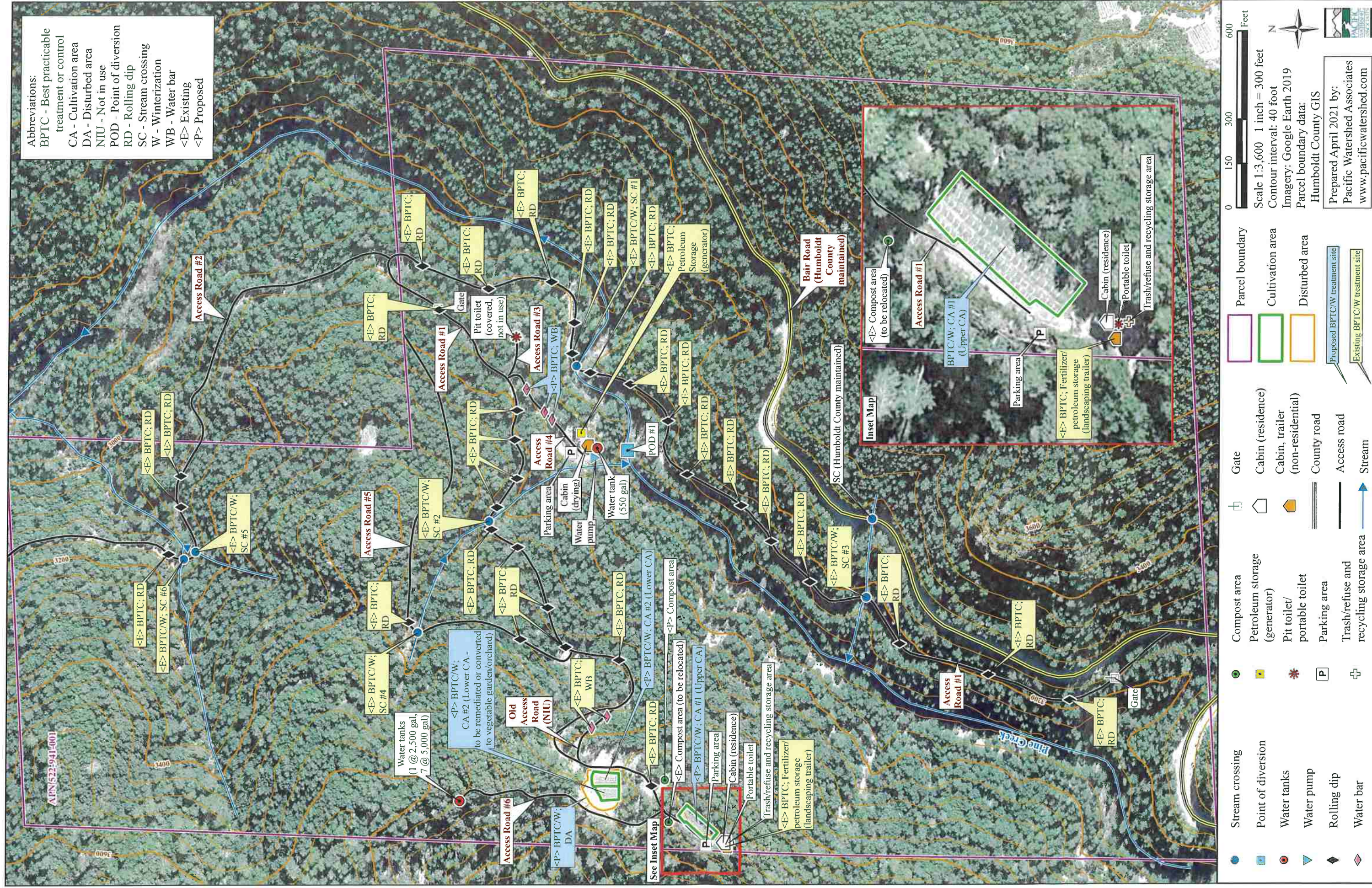
If any BPTC measure cannot be completed before the onset of winter period, contact the Regional Water Board to establish a compliance schedule.

All BPTC measures are scheduled to be completed before the onset of the winter period provided all applicable permits from regulatory agencies are obtained. If any BPTC measures cannot be implemented prior to the start of the winter season (e.g., installation of a permitted OWTS) the Regional Water Board will be contacted, and a compliance schedule established. Refer to Table 1, above, for information regarding a BPTC implementation schedule.

5.5 Legacy Waste Discharge Issues for Specific Regions

For Region 1 Dischargers, describe any activities that will be performed to address legacy waste discharge issues. Region 6 Dischargers should consult with Regional Water Board staff to confirm if any other activities in addition to BPTCs are necessary to address legacy waste discharge issues.

No legacy waste discharge issues were observed on the Project Site.



Abbreviations:
 BPTC - Best practicable treatment or control
 CA - Cultivation area
 DA - Disturbed area
 NIU - Not in use
 POD - Point of diversion
 RD - Rolling dip
 SC - Stream crossing
 W - Winterization
 WB - Water bar
 <E> - Existing
 <P> - Proposed

	Stream crossing		Compost area		Gate		Parcel boundary
	Point of diversion		Petroleum storage (generator)		Cabin (residence)		Cultivation area
	Water tanks		Pit toilet/portable toilet		Cabin, trailer (non-residential)		Disturbed area
	Water pump		Parking area		County road		Proposed BPTC/W treatment site
	Rolling dip		Trash/refuse and recycling storage area		Access road		Existing BPTC/W treatment site
	Water bar				Stream		

Scale 1:3,600 1 inch = 300 feet
 Contour interval: 40 foot
 Imagery: Google Earth 2019
 Parcel boundary data: Humboldt County GIS
 Prepared April 2021 by: Pacific Watershed Associates
 www.pacificwatershed.com

Figure 2. Site Management Plan Site Map for Love and Laughter Farms, APN 522-941-001, located off Bair Road near Willow Creek, Humboldt County, California.

P:\GIS\5467 Love and Laughter 2018\5467 Love and Laughter 2020 SMP site map.mxd

APPENDIX A

Water Resource Protection Plan (WRPP) for

Humboldt County 522-941-001

IV. LANDOWNER/LESSEE CERTIFICATION/SIGNATURES

This Site Management Plan has been prepared by Pacific Watershed Associates on behalf of the Discharger.

"I have read and understand this Site Management Plan, including Section II – Certifications, Conditions and Limitations, and the associated attachments. I agree to comply with the requirements of the State Water Resources Control Board (SWRCB) Cannabis Cultivation Policy Order WQ 2019-0001-DWQ, General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities (General Order), including the recommendations and actions listed in this Site Management Plan."

Name of Legally Responsible Person (LRP): Stephen DiTuro

Title (owner, lessee, operator, etc.): Stephen DiTuro

Signature:  Date: 5-6-21

Site Management Plan prepared by (if different from LRP): **Pacific Watershed Associates, Inc.**

Site Management Plan prepared and finalized on (date): 5/6/2021

Signature:  Date: 5/6/2021

Attachment 11b

Love and Laughter Farms

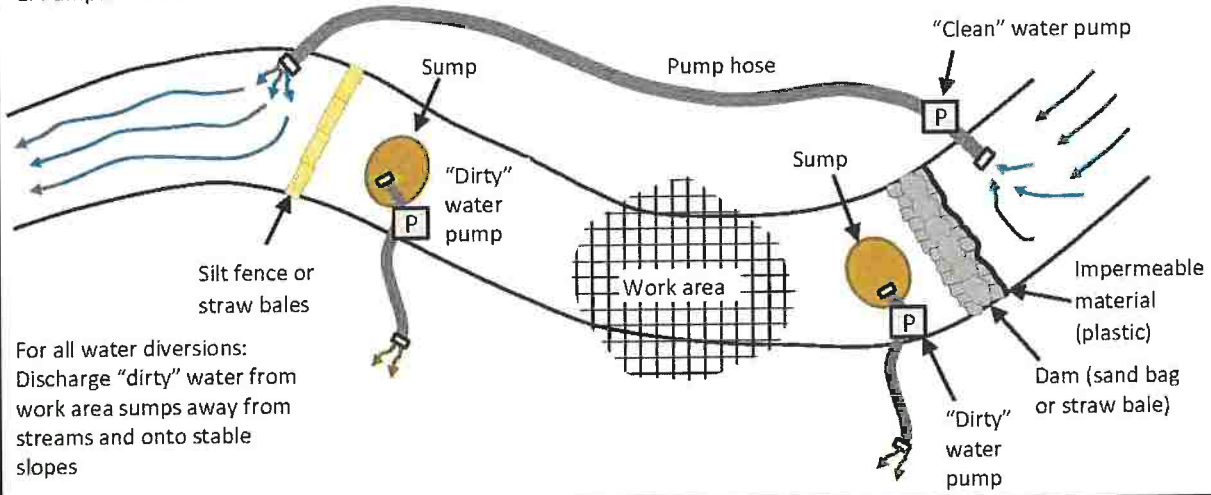
Water Resource

Protection Plan

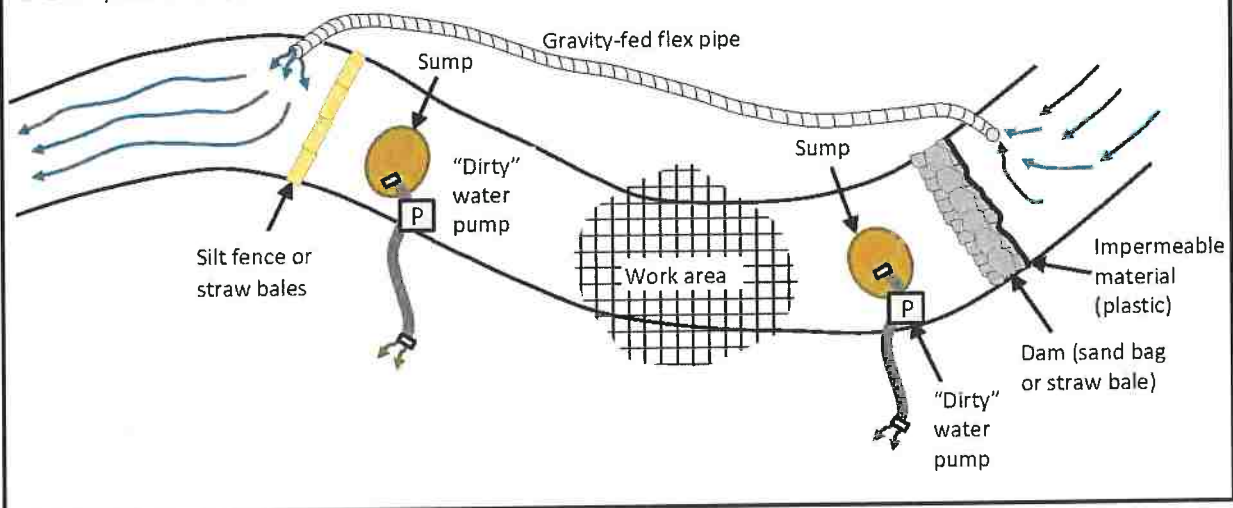
(WRPP)

Typical Design for De-watering Streams

1. Pumped diversion



2. Gravity-fed diversion



Stream crossing de-watering

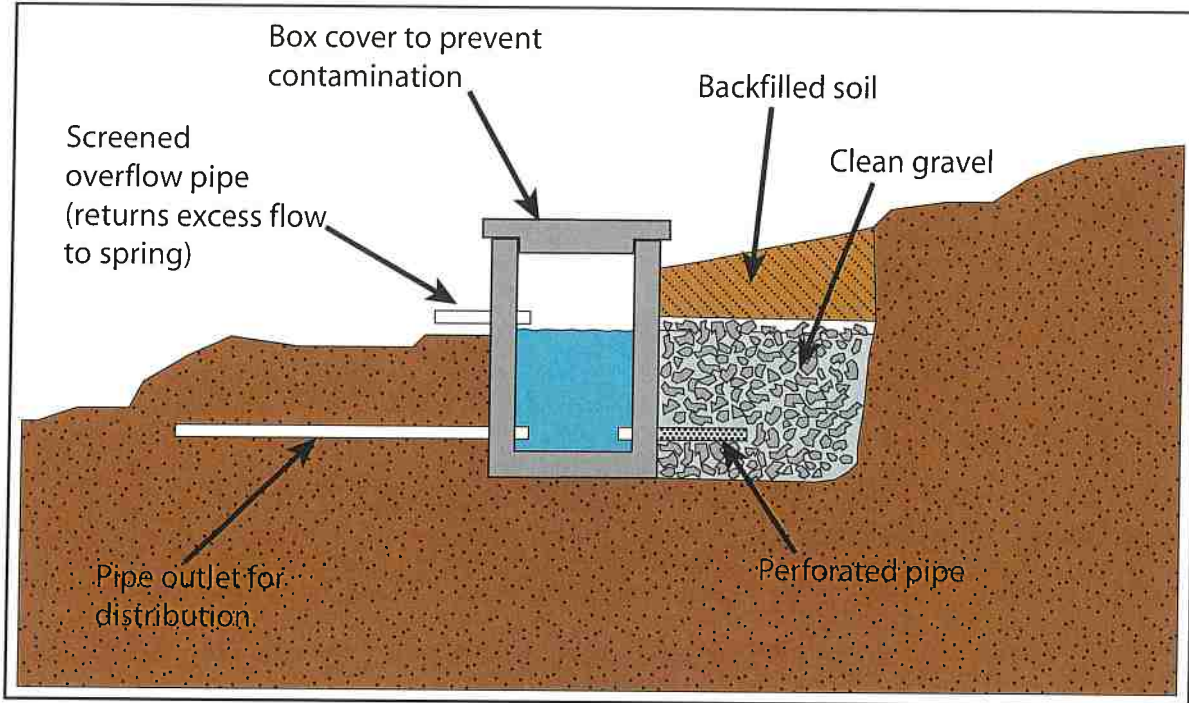
Prior to working in and around the active stream channel, proper stream dewatering and avoidance of increasing downstream turbidity should be employed. Stream flows will be isolated upstream of the work area using cofferdams and transported downstream / around the work site through either a pumped diversion (Type 1) or by gravity diversion (Type 2) to keep the stream "live" (flowing) below the work area. An additional dam will be installed downstream of the work areas to capture any subsurface flow that might travel through the construction area. Any "dirty" water will be collected at this location and pumped away from the site where it can infiltrate into the ground without the potential to delivery to the stream and/or be used to wet fill being deposited in the spoil disposal areas.

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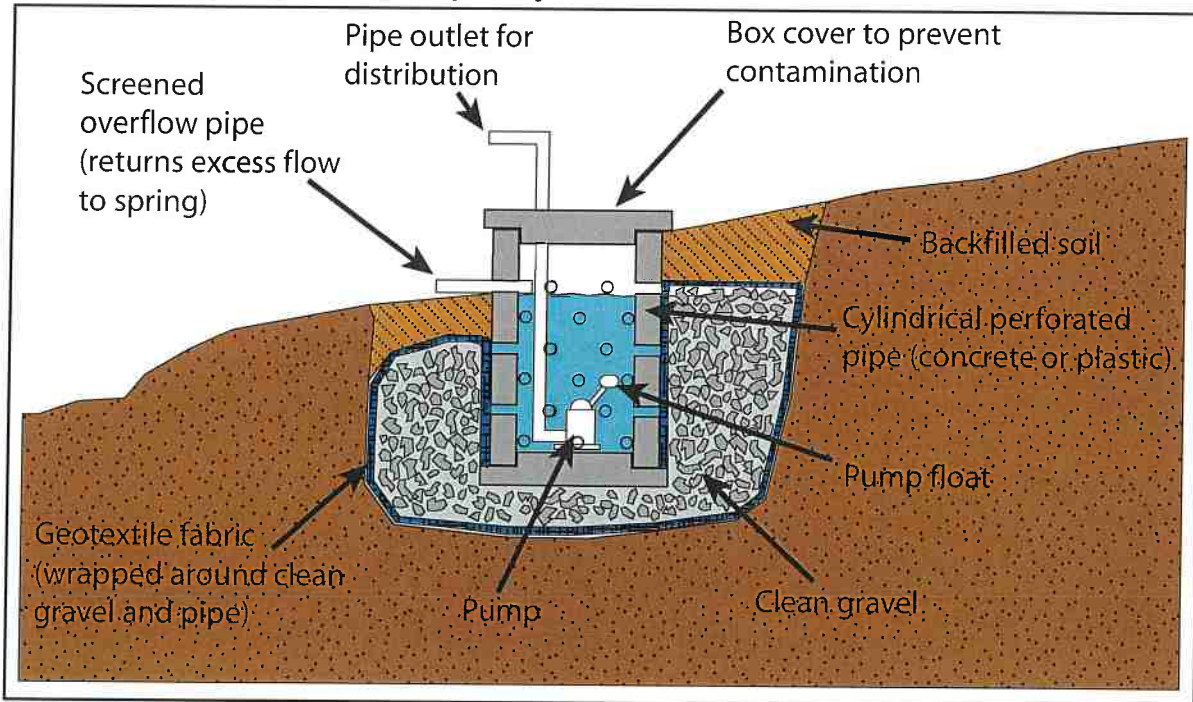
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PO Box 2070, Petaluma, CA 95943 / Ph: 707-773-1385/ FAX: 707-773-1451/ www.pacificwatershed.com

Typical design drawings of spring boxes

Piped spring box - gravity system



Perforated spring box - pumped system

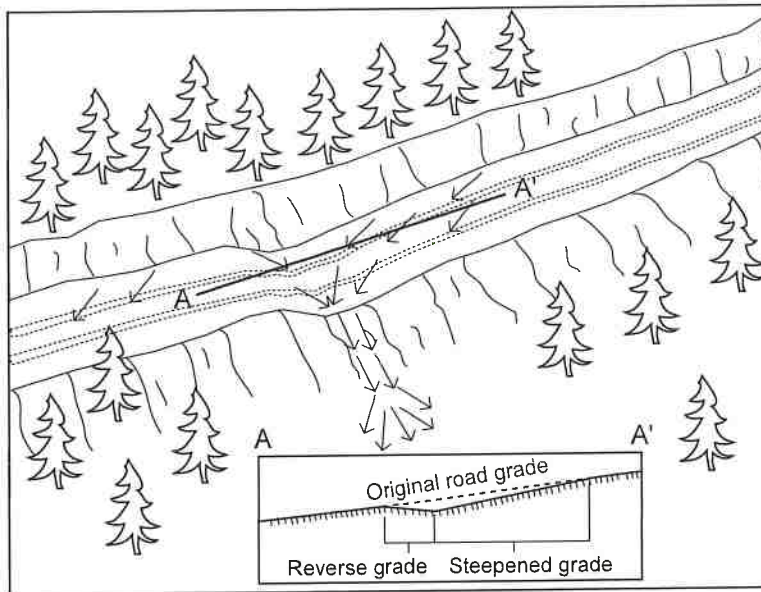


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PWA Typical Drawing #20

Typical Road Surface Drainage by Rolling Dips



Rolling dip installation:

1. Rolling dips will be installed in the roadbed as needed to drain the road surface.
2. Rolling dips will be sloped either into the ditch or to the outside of the road edge as required to properly drain the road.
3. Rolling dips are usually built at 30 to 45 degree angles to the road alignment with cross road grade of at least 1% greater than the grade of the road.
4. Excavation for the dips will be done with a medium-size bulldozer or similar equipment.
5. Excavation of the dips will begin 50 to 100 feet up road from where the axis of the dip is planned as per guidelines established in the rolling dip dimensions table.
6. Material will be progressively excavated from the roadbed, steepening the grade until the axis is reached.
7. The depth of the dip will be determined by the grade of the road (see table below).
8. On the down road side of the rolling dip axis, a grade change will be installed to prevent the runoff from continuing down the road (see figure above).
9. The rise in the reverse grade will be carried for about 10 to 20 feet and then return to the original slope.
10. The transition from axis to bottom, through rising grade to falling grade, will be in a road distance of at least 15 to 30 feet.

Table of rolling dip dimensions by road grade

Road grade %	Upslope approach distance (from up road start to trough) ft	Reverse grade distance (from trough to crest) ft	Depth at trough outlet (below average road grade) ft	Depth at trough inlet (below average road grade) ft
<6	55	15 - 20	0.9	0.3
8	65	15 - 20	1.0	0.2
10	75	15 - 20	1.1	0.01
12	85	20 - 25	1.2	0.01
>12	100	20 - 25	1.3	0.01

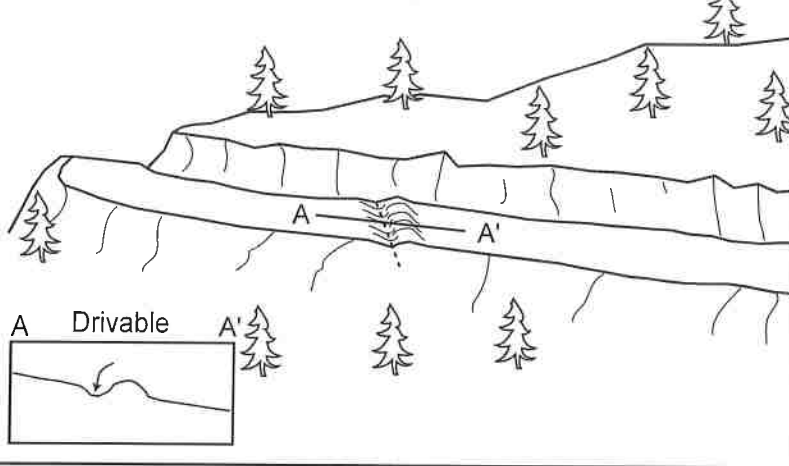
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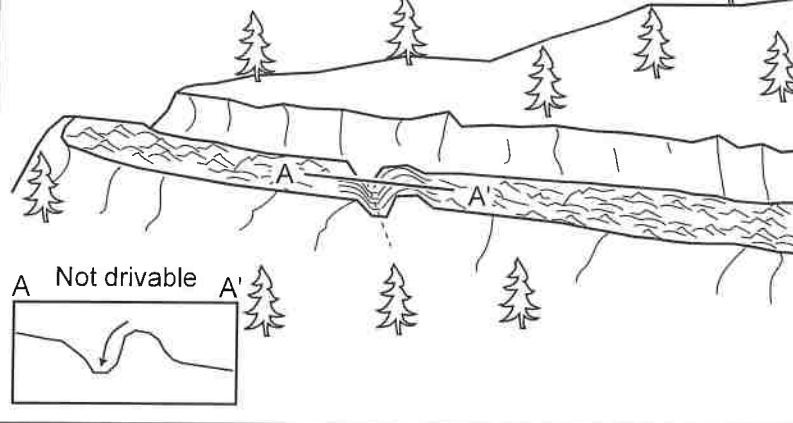
Typical Drawing #11

Typical Methods for Dispersing Road Surface Runoff with Waterbars, Cross-road Drains, and Rolling Dips

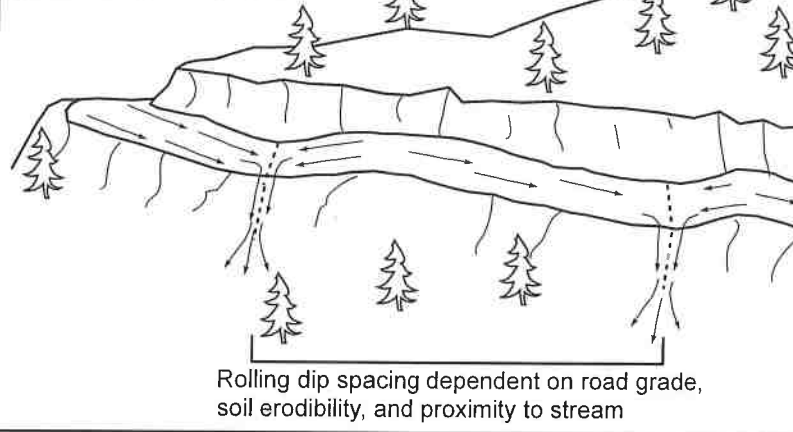
Waterbars (seasonal roads)



Cross-road drain and decompaction (decommissioned roads)



Rolling dips (maintained roads)



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Typical Drawing #10

APPENDIX B

PWA Typical Drawings

Water Resource Protection Plan Assessment of Standard Conditions for APN 522-941-001

A. Standard Conditions, Applicable to All Dischargers

1. Site maintenance, erosion control and drainage features

- a. Roads shall be maintained as appropriate (with adequate surfacing and drainage features) to avoid developing surface ruts, gullies, or surface erosion that results in sediment delivery to surface waters.

We have completed the bridge and remaining stream crossing solutions that PWA had calculated, and as prescribed by the LSAA 1600. During the construction of the bridge, the pinch points leading up to the bridge were widened. During the stream crossing repairs, rolling dips were added at appropriate points.

- b. Roads, driveways, trails, and other defined corridors for foot or vehicle traffic of any kind shall have adequate ditch relief drains or rolling dips and/or other measures to prevent or minimize erosion along the flow paths and at their respective outlet.

Rolling dips are in place at appropriate points and functioning.

- c. Roads and other features shall be maintained so that surface runoff drains away from potentially unstable slopes or earthen fills. Where road runoff cannot be drained away from an unstable feature, an engineered structure or system shall be installed to ensure that surface flows will not cause slope failure.

The unstable fill at the lower cultivation area was addressed during the culvert/road maintenance upgrades.

- d. Roads, clearings, fill prisms, and terraced areas (cleared/developed areas with the potential for sediment erosion and transport) shall be maintained so¹ that they are hydrologically disconnected¹, as feasible, from surface waters, including wetlands, ephemeral, intermittent and perennial streams.

Roads, clearings, fill prisms and terraced areas are properly maintained.

¹Connected roads are road segments that deliver road surface runoff, via the ditch or road surface, to a stream crossing or to a connected drain that occurs within the high delivery potential portion of the active road network. A connected drain is defined as any cross-drain culvert, water bar, rolling dip, or ditch-out that appears to deliver runoff to a defined channel. A drain is considered connected if there is evidence of surface flow connection from the road to a defined channel or if the outlet has eroded a channel that extends from the road to a defined channel. (http://www.forestsandfish.com/documents/Road_Mgmt_Survey.pdf)

- e. Ditch relief drains, rolling dip outlets, and road pad or terrace surfaces shall be maintained to promote infiltration/dispersal of outflows and have no apparent erosion or evidence of soil transport to receiving waters.

There are no outflows from the garden to maintain. The ditch relief drains and the rolling dips are maintained for rain and snow melt runoff.

- f. Stockpiled construction materials are stored in a location and manner so as to prevent their transport to receiving waters.

There are no stockpiles of construction materials to be stored.

2. Stream Crossing Maintenance

- a. Culverts and stream crossings shall be sized to pass the expected 100-year peak streamflow.
- b. Culverts and stream crossings shall be designed and maintained to address debris associated with the expected 100-year peak streamflow.
- c. Culverts and stream crossings shall allow passage of all life stages of fish on fish-bearing or restorable streams, and allow passage of aquatic organisms on perennial or intermittent streams.
- d. Stream crossings shall be maintained so as to prevent or minimize erosion from exposed surfaces adjacent to, and in the channel and on the banks.
- e. Culverts shall align with the stream grade and natural stream channel at the inlet and outlet where feasible².
- f. Stream crossings shall be maintained so as to prevent stream diversion in the event that the culvert/crossing is plugged, and critical dips shall be employed with all crossing installations where feasible³.

All stream crossings are now in compliance, and are regularly inspected and maintained.

3. Riparian and Wetland Protection and Management

- a. For Tier 1 Dischargers, cultivation areas or associated facilities shall not be located within 200 feet of surface waters. While 200 foot buffers are preferred for Tier 2 sites, at a minimum, cultivation areas and associated facilities shall not be

² At a minimum, the culvert shall be aligned at the inlet. If infeasible to align the culvert outlet with the stream grade or channel, outlet armoring or equivalently effective means may be applied.

³ If infeasible to install a critical dip, an alternative solution may be chosen.

located or occur within 100 feet of any Class I or II watercourse or within 50 feet of any Class III watercourse or wetlands. The Regional Water Board or its or its Executive Officer may apply additional or alternative⁴ conditions on enrollment, including site-specific riparian buffers and other BMPs beyond those identified in water resource protection plans to ensure water quality protection.

The cultivation areas, and associated buildings are more than 200 feet away from surface waters.

- b. Buffers shall be maintained at natural slope with native vegetation.

Native vegetation is maintained as needed to perpetuate the natural slope.

- c. Buffers shall be of sufficient width to filter wastes from runoff discharging from production lands and associated facilities to all wetlands, streams, drainage ditches, or other conveyances.

Buffers are of sufficient width.

- d. Riparian and wetland areas shall be protected in a manner that maintains their essential functions, including temperature and microclimate control, filtration of sediment and other pollutants, nutrient cycling, woody debris recruitment, groundwater recharge, stream-bank stabilization, and flood peak attenuation and flood water storage.

Riparian and wetland areas are protected and maintained.

4. Spoils Management

- a. Spoils⁵ shall not be stored or placed in or where they can enter any surface water.

Soil is amended and reused in the trenches, so there are no spoils.

- b. Spoils shall be adequately contained or stabilized to prevent sediment delivery to surface waters.

Cover crops and/or hay mulching is used on the cultivation surfaces prior to winter onset to prevent soil erosion/sediment delivery to surface waters.

⁴ Alternative site-specific riparian buffers that are equally protective of water quality may be necessary to accommodate existing permanent structures or other types of structures that cannot be relocated.

⁵ Spoils are waste earthen or organic materials generated through grading or excavation, or waste plant growth media or soil amendments. Spoils include but are not limited to soils, slash, bark, sawdust, potting soils, rock, and fertilizers.

- c. Spoils generated through development or maintenance of roads, driveways, earthen fill pads, or other cleared or filled areas shall not be sidecast in any location where they can enter or be transported to surface waters.

When road maintenance occurs, spoils are dealt with appropriately to protect surface waters.

5. Water Storage and Use

- a. Size and scope of an operation shall be such that the amount of water used shall not adversely impact water quality and/or beneficial uses, including and in consideration with other water use by operations, instream flow requirements and/or needs in the watershed, defined at the scale of a HUC- 12⁶ watershed or at a smaller hydrologic watershed as determined necessary by the Regional Water Board Executive Officer.

Water usage has been approved by the Regional Water Board.

- b. Water conservation measures shall be implemented. Examples include use of rainwater catchment systems or watering plants with a drip irrigation system rather than with a hose or sprinkler system.

Cultivation area uses a drip irrigation system to minimize water usage, water runoff and evaporation loss.

- c. For Tier 2 Dischargers, if possible, develop off-stream storage facilities to minimize surface water diversion during low flow periods.

Water is diverted and stored. There is a total of 37,500 gallons of off-stream storage.

- d. Water is applied using no more than agronomic rates⁷.

Water is applied with agronomic rates.

- e. Diversion and/or storage of water from a stream should be conducted pursuant to a valid water right and in compliance with reporting requirements under Water Code section 5101.

Diversion occurrence is in compliance.

⁶ See definition and link to maps at: <http://water.usgs.gov/GIS/huc.html>.

⁷ "Agronomic rates" is defined as the rates of fertilizer and irrigation water that a plant needs to enhance soil productivity and provide the crop or forage growth with needed nutrients for optimum health and growth, without having any excess water or nutrient percolate beyond the root zone.

- f. Water storage features, such as ponds, tanks, and other vessels shall be selected, sited, designed, and maintained so as to ensure integrity and to prevent release into waters of the state in the event of a containment failure.

There are seven 5,000 gallon storage tanks and one 2,500 gallon storage tank. The tanks are individually opened and closed as needed, to ensure that in the unfortunate instance of a failure, there would be limited loss.

6. Irrigation Runoff

Implementing water conservation measures, irrigating at agronomic rates, applying fertilizers at agronomic rates and applying chemicals according to the label specifications, and maintaining stable soil and growth media should serve to minimize the amount of runoff and the concentration of chemicals in that water. In the event that irrigation runoff occurs, measures shall be in place to treat/control/contain the runoff to minimize the pollutant loads in the discharge. Irrigation runoff shall be managed so that any entrained constituents, such as fertilizers, fine sediment and suspended organic particles, and other oxygen consuming materials are not discharged to nearby watercourses. Management practices include, but are not limited to, modifications to irrigation systems that reuse tailwater by constructing off-stream retention basins, and active (pumping) and or passive (gravity) tailwater recapture/redistribution systems. Care shall be taken to ensure that irrigation tailwater is not discharged towards or impounded over unstable features or landslides.

Drip irrigation occurs at agronomic rates, and does not produce runoff. In the event that runoff does occur, the entire cultivation area is contained within a natural berm. The land owner uses minimal fertilizers to limit impact.

7. Fertilizers and Soil Amendments

- a. Fertilizers, potting soils, compost, and other soils and soil amendments shall be stored in locations and in a manner in which they cannot enter or be transported into surface waters and such that nutrients or other pollutants cannot be leached into groundwater.

The landowner stores fertilizers in an enclosed landscaping trailer, which is removed from property when not in use.

- b. Fertilizers and soil amendments shall be applied and used per packaging instructions and/or at proper agronomic rates.

Only OMRI, Organic products are used, and they are used according to the manufacturer's instructions.

- c. Cultivation areas shall be maintained so as to prevent nutrients from leaving the site during the growing season and post-harvest.

Cultivation areas are maintained properly.

8. Pesticides/Herbicides

At the present time, there are no pesticides or herbicides registered specifically for use directly on cannabis and the use of pesticides on cannabis plants has not been reviewed for safety, human health effects, or environmental impacts. Under California law, the only pesticide products not illegal to use on cannabis are those that contain an active ingredient that is exempt from residue tolerance requirements and either registered and labeled for a broad enough use to include use on cannabis or exempt from registration requirements as a minimum risk pesticide under FIFRA section 25(b) and California Code of Regulations, title 3, section 6147. For the purpose of compliance with conditions of this Order, any uses of pesticide products shall be consistent with product labeling and any products on the site shall be placed, used, and stored in a manner that ensures that they will not enter or be released into surface or ground waters.

There are no pesticides or herbicides administered on the property. Instead of pesticides, the landowner uses companion planting, beneficial bacteria and/or beneficial fungi in the growing medium and/or organic soap to control pests. Weeds are removed manually.

9. Petroleum products and other chemicals

- a. Petroleum products and other liquid chemicals, including but not limited to diesel, biodiesel, gasoline, and oils shall be stored so as to prevent their spillage, discharge, or seepage into receiving waters. Storage tanks and containers must be of suitable material and construction to be compatible with the substance(s) stored and conditions of storage such as pressure and temperature.

All petroleum products on site are stored within secondary containment equaling to or greater than the capacity of their storage containers.

- b. Above ground storage tanks and containers shall be provided with a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation.

Not applicable.

- c. Dischargers shall ensure that diked areas are sufficiently impervious to contain discharged chemicals.

A single water diversion pump and a gasoline powered generator are the only petroleum burning devices used on the property. They are both contained in waterproof, ventilated housing with secondary containment.

- d. Discharger(s) shall implement spill prevention, control, and countermeasures (SPCC) and have appropriate cleanup materials available onsite.

Water diversion pump and generator both have secondary containment large enough for the entire capacity of any spill to be contained. In case of accidental spill, land owner has absorbent material on site for oil spill cleanup.

- e. Underground storage tanks 110 gallons and larger shall be registered with the appropriate County Health Department and comply with State and local requirements for leak detection, spill overflow, corrosion protection, and insurance coverage.

Not applicable.

10. Cultivation-related wastes

Cultivation-related wastes including, but not limited to, empty soil/soil amendment/fertilizer/pesticide bags and containers, empty plant pots or containers, dead or harvested plant waste, and spent growth medium shall, for as long as they remain on the site, be stored⁸ at locations where they will not enter or be blown into surface waters, and in a manner that ensures that residues and pollutants within those materials do not migrate or leach into surface water or groundwaters.

All refuse and recycling is removed from the property weekly and disposed of properly. Organic materials resulting from the cultivation site are decomposed in compost area and are reintroduced within the growing medium after decomposition.

11. Refuse and human waste

- a. Disposal of domestic sewage shall meet applicable County health standards, local agency management plans and ordinances, and/or the Regional Water Board's Onsite Wastewater Treatment System (OWTS) policy, and shall not represent a threat to surface water or groundwater.

Domestic sewage is currently carried off site and disposed of appropriately weekly. Land owner hopes to build a pit privy in the near future.

- b. Refuse and garbage shall be stored in a location and manner that prevents its discharge to receiving waters and prevents any leachate or contact water from entering or percolating to receiving waters.

⁸ Plant waste may also be composted, subject to the same restrictions cited above for cultivation-related waste storage.

Garbage is stored in a closed container, and put indoors when land owner is not present. It is taken off site and disposed of weekly.

- c. Garbage and refuse shall be disposed of at an appropriate waste disposal location.

Garbage and recycling is disposed of in land owners home garbage receptacles. When needed, garbage is disposed of at the city dump.

12. Remediation/Cleanup/Restoration

Remediation/cleanup/restoration activities may include, but are not limited to, removal of fill from watercourses, stream restoration, riparian vegetation planting and maintenance, soil stabilization, erosion control, upgrading stream crossings, road outcropping and rolling dip installation where safe and suitable, installing ditch relief culverts and overside drains, removing berms, stabilizing unstable areas, reshaping cutbanks, and rocking native-surfaced roads. Restoration and cleanup conditions and provisions generally apply to Tier 3 sites, however owners/operators of Tier 1 or 2 sites may identify or propose water resource improvement or enhancement projects such as stream restoration or riparian planting with native vegetation and, for such projects, these conditions apply similarly. Appendix B accompanying this Order includes environmental protection and mitigation measures that apply to cleanup activities such as: temporal limitations on construction; limitations on earthmoving and construction equipment; guidelines for removal of plants and revegetation; conditions for erosion control, limitations on work in streams, riparian and wetland areas; and other measures.

Mitigation measures are listed in the Water Resource Protection Plan and also noted above in the document. All road delinquencies were completed according to our extended LSAA on file.