

Water Resource Protection Plan

APN 214-211-003

WDID# 1B161469CHUM

TRC# 180101060405TRC195



Submitted to:

Kisha Skillern

Prepared by:

Timberland Resource Consultants

165 South Fortuna Blvd

Fortuna, CA 95540

4/24/2017

Purpose

This Water Resource Protection Plan (WRPP) has been prepared on behalf of the property owner, Kisha Skillern, for Assessor's Parcel Number 214-211-003, by agreement and in response to the California Water Code Section 13260(a), which requires that any person discharging waste or proposing to discharge waste within any region that could affect the quality of the waters of the state, other than into a community sewer system, shall file with the appropriate regional water board a Report of Waste Discharge (ROWD) containing such information and data as may be required by the Regional Water Board. The Regional Water Board may waive the requirements of Water Code section 13260 for specific types of discharges if the waiver is consistent with the Basin Plan and in the public interest. Any waiver is conditional and may be terminated at any time. A waiver should include monitoring requirements to verify the adequacy and effectiveness of the waiver's conditions. Order R1-2015-0023 conditionally waives the requirement to file a ROWD for discharges and associated activities described in Finding 4.

Scope of Report

Order No. R1-2015-0023 states that "Tier 2 Discharger's and Tier 3 Discharger's who intend to cultivate cannabis before, during, or following site cleanup activities shall develop and implement a water resource protection plan that contains the elements listed and addressed below. Discharger's must keep this plan on site, and produce it upon request by Regional Water Board staff. Management practices shall be properly designed and installed, and assessed periodically for effectiveness. If a management measure is found to be ineffective, the plan must be adapted and implemented to incorporate new or additional management practices to meet standard conditions. Discharger's shall certify annually to the Regional Water Board individually or through an approved third party program that the plan is being implemented and is effectively protecting water quality, and report on progress in implementing site improvements intended to bring the site into compliance with all conditions of this Order."

Methods

The methods used to develop this WRPP include both field and office components. The office component consisted of aerial photography review and interpretation, existing USGS quad map review, GIS mapping of field data, review of on-site photography points, streamflow calculations, and general planning. The field component included identifying and accurately mapping all watercourses, wet areas, and wetlands located downstream of the cultivation areas, associated facilities, and all appurtenant road's accessing such areas. An accurate location of the Waters of the State is necessary to make an assessment of whether potential and existing erosion sites/pollution sites have the potential to discharge waste to an area that could affect waters of the State (including groundwater). Next, all cultivation areas, associated facilities, and all appurtenant road's accessing such areas were assessed for discharges and related controllable water quality factors from the activities listed in Order R1-2015-0023, Finding 4a-j. The field assessment also included an evaluation and determination of compliance with the Standard Conditions per Provision I.B of Order No. R1-2015-0023. The water resource protection plans required under Tier 2 are meant to describe the specific measures a Discharger implements to achieve compliance with standard conditions. Therefore, all required components of the water resource protection plan per Provision I.B of Order No. R1-2015-0023 were physically inspected and evaluated. A comprehensive summary of each Standard Condition as it relates to the subject property is appended.

Property Description

The property assessed is a 120-acre parcel located on French Road. There are six Class III watercourses on the property that are tributaries to the South Fork Eel River. The property is located in the N ½ of Section 24 of Township 3S, Range 3E, Humboldt Base & Meridian of the USGS Miranda 7.5' quadrangle map.

Monitoring Plan

Tier 2 Discharger's shall include a monitoring element in the water resource protection plan that at a minimum provides for periodic inspection of the site, checklist to confirm placement and efficacy of management measures, and document progress on any plan elements subject to a time schedule. Tier 2 Discharger's shall submit an annual report (Appendix C) by March 31 of each year that documents implementation and effectiveness of management measures during the previous year. Tier 2 annual reporting is a function that may be provided through an approved third party program.

Monitoring of the site includes visual inspection and photographic documentation of each feature of interest listed on the site map, with new photographic documentation recorded with any notable changes to the feature of interest. At a minimum, all site features must be monitored annually, to provide the basis for completion of the annual re-certification process. Additionally, sites shall be monitored at the following times to ensure timely identification of changed site conditions and to determine whether implementation of additional management measures is necessary to iteratively prevent, minimize, and mitigate discharges of waste to surface water: 1) just prior to October 15 to evaluate site preparedness for storm events and storm water runoff, 2) following the accumulation of 3" total precipitation or by November 15, whichever is sooner, and 3) following any rainfall event with an intensity of 3" precipitation in 24 hours. Precipitation data can be obtained from the National Weather Service Forecast Office (e.g. by entering the zip code of the parcel location at <http://www.srh.noaa.gov/forecast>).

Monitoring Plan Reporting Requirements

Order No. R1-2015-0023, Appendix C must be submitted to the Regional Water Board or approved third party program upon initial enrollment in the Order (NOI) and annually thereafter by March 31. Forms submitted to the Regional Water Board shall be submitted electronically to northcoast@waterboards.ca.gov. If electronic submission is infeasible, hard copies can be submitted to: North Coast Regional Water Quality Control Board, 5550 Skyline Boulevard, Suite A, Santa Rosa, CA 95403.

Assessment of Standard Conditions

Assessment of Standard Conditions consisted of field examinations on 3/22/2017. The examination evaluated areas near, and areas with the potential to directly impact, watercourses for sensitive conditions including, but not limited to, existing and proposed road's, skid trails and landings, unstable and erodible watercourse banks, unstable upslope areas, debris, jam potential, inadequate flow capacity, changeable channels, overflow channels, flood prone areas, and riparian zones. Field examinations also evaluated all road's and trails on the property, developed areas, cultivation sites, and any structures and facilities appurtenant to cultivation on the property. Anywhere the Standard Conditions are not met on the property, descriptions of the assessments and the prescribed treatments are outlined following each associated section below.

Summary of Standard Conditions Compliance

1. Site maintenance, erosion control, and drainage features Y☐/N☒
2. Stream crossing maintenance Y☒/N☐
3. Riparian and wetland protection and management Y☒/N☐
4. Spoils management Y☐/N☒
5. Water storage and use Y☒/N☐
6. Irrigation runoff Y☒/N☐
7. Fertilizers and soil amendments Y☐/N☒
8. Pesticides and herbicides Y☒/N☐
9. Petroleum products and other chemicals Y☐/N☒
10. Cultivation-related wastes Y☐/N☒
11. Refuse and human waste Y☒/N☐

A. Standard Conditions, Applicable to All Discharger's

1. Site maintenance, erosion control and drainage features (Compliance: Y☐/ N☒)

- a. Road's 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.

The main access road to the greenhouse landings is in good shape with adequate road rock. However, it is lacking drainage features to drain the road and prevent future erosion of the road's surface. The road and parking area at Cultivation Site 2 is lacking road surface rock and is receiving concentrated road surface flows from the road to Cultivation Site 1. These factors are resulting in saturation and rutting of the road and parking area at Cultivation Site 2. The access road below Cultivation Site 2 is in great shape with adequate road surface rock and drainage features. However, some drainage features are not draining the road's surface as intended which will result in future degradation and erosion of the road's surface.

Road Point 1 – Surface flows coming from the residence area on the adjacent parcel are concentrating and running down the road's surface resulting in erosion of the road's surface. The Discharger shall install a leadout ditch to drain road's surface per attached specifications.

Road Point 2 – Surface flows coming from the residence area on the adjacent parcel are concentrating and running down the road's surface resulting in erosion of the road's surface. The Discharger shall install a rocked rolling dip per attached specifications.

Road Point 3 – Surface flows coming from Cultivation Site 1 are concentrating and draining onto Cultivation Site 2's landing resulting in saturation and rutting of the landing. The

Discharger shall drain this segment of road by installing a leadout ditch draining the road's surface into the woods to the south.

Road Point 4 – Surface flows coming from Cultivation Site 1 are concentrating and draining onto Cultivation Site 2's landing resulting in saturation and rutting of the landing. The Discharger shall install a rocked rolling dip per attached specifications.

Road Point 5 – Runoff from Cultivation Site 2 is draining onto the road above this Road Point, flowing through the rolling dip, and draining down the road's surface for another ~400' resulting in erosion of the road's surface and transportation of cultivation soils and perlite. The rocked rolling dip at Road Point 5 is not capturing these surface flows as intended due to it not having enough of an outslope and large enough dip. The Discharger shall re-grade this rocked rolling dip so that it captures all surface flows coming from Cultivation Site 2 and drains them into the woods to the northeast, not allowing them to drain down the road's surface any further.

Road Point 6, 7 & 8 – Located at these Road Points are rocked rolling dips that are not functioning. The Discharger shall re-grade/install these rocked rolling dips so that it captures all surface flows and drains them off the road's surface at each location.

- b. Road's, 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 outlets.

Ditch Relief Culvert 1 – 12" diameter ditch relief culvert that is lacking rock armoring of the inlet and an energy dissipater at the outlet of the culvert. The Discharger shall rock armor the inlet and install an energy dissipater at the outlet per attached specifications.

- c. Road's 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.

Physical reconnaissance of the property revealed no active unstable areas but did reveal a fill slope, Site 2, that has the potential for failure. The Geomorphic Features Map for the Miranda 7.5' Quadrangle, Humboldt County, California Scale 1: 24,000 (Spittler, T.E., 1983, DMG Open-File Report 83-25 Geology and Geomorphic Features Related to Landsliding) shows no unstable areas or geomorphic features within or nearby the property.

Site 2 – The fill slope along the northeast side of Cultivation Site 2's landing has settled and created fissure cracks in the fill slope. The fill's slope is also steeper than the minimum 1.5:1 slope. The Discharger shall layback the fill slope to a 1.5:1 slope and re-compact the fill. The Discharger shall then install erosion control mats and seed and mulch the fill slope.

- d. Road's, clearings, fill prisms, and terraced areas (cleared/developed areas with the potential for sediment erosion and transport) shall be maintained so that they are not hydrologically connected¹, as feasible, from surface waters, including wetlands, ephemeral, intermittent and perennial streams.

Road's, clearings, and terraced areas are not hydrologically connected to surface waters. The fill prism at Cultivation Site 2 is beginning to erode and transport sediment. Sediment from this erosion does not reach surface waters, but further erosion and development of gullies may result in sediment discharge to watercourses in future storm water events.

Site 3 – The fill prism at Site 3 is developing gullies due to concentrated storm water drainage coming off of Cultivation Site 2's landing. The Discharger shall install a rocked drainage ditch and a rocked outflow over the fill slope to concentrate and direct storm water flows coming from Cultivation Site 2. The Discharger shall do this in way that does not result in further gulling and erosion of the landing and fill slope. Alternatively, install the rocked drainage ditch so that it does not drain over any fillslope and towards the swale area that Road Point 4 will drain into.

- 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.

Ditch relief drains, rolling dip outlets, road pads and terraced cultivation areas and the developed areas on the property are being maintained to promote drainage, infiltration, and dispersal of flows and to have no apparent sediment transport to a receiving water.

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

No stockpiled construction materials are on the property where they can enter surface waters. In the future, all construction materials will be stored to prevent their transport to receiving waters.

¹ Connected 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)

2. Stream Crossing Maintenance (Compliance: Y ☒ / N ☐)

- 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 feasible.²
- 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 feasible.³

Stream Crossing 1 – Class III watercourse crossing with an 18" diameter smooth-walled pipe placed in the streambed with a slope of 10%. The culvert is adequately sized for 100-year storm flows per the Manning equation accounting for a slope 10% and an n-value of 0.012. The crossing's estimated 100-year storm flow is 28-cfs and the culvert's maximum capacity is 28.4-cfs. The culvert has adequate rock armoring of the inlet and an adequate energy dissipater.

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

$T_c = 60((11.9 \times L^3)/H)^{0.385}$				$Q_{100} = CIA$			
Stream Crossing (SC)	Channel length (to top of basin) (mi) L	Elevation difference (ft) H	Concentra- tion time (min) T_c	Runoff coefficient C	100-year Return- Period Precipitation (in/hr) I^a	Area (acres) A	100-yr flood flow (cfs) Q₁₀₀
1				0.4	2.93	23.85	28.0

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.

3. Riparian and Wetland Protection and Management (Compliance: Y ☒/ N ☐)

- a. For Tier 1 Discharger's, 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 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 Site 1 is located well over 900' away from Class III watercourses. Cultivation Site 2 is located over 700' away from Class III watercourses.

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

Buffers are at natural slope, undeveloped, and heavily vegetated with native trees and brush and are sufficiently wide enough to filter any discharges from production lands.

- 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. 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, streambank stabilization, and flood peak attenuation and flood water storage.

Cultivation Site 1 and Cultivation Site 2 are located far outside the minimum buffers for the respective nearest watercourse.

In order to remain in compliance with the Order, riparian buffers will continue to be excluded from operations and protected in a manner that maintains their essential functions. To determine riparian buffers, measure 50' from Class III watercourses, 100' from Class I or II watercourses when in the vicinity of future grading or terracing areas and keep future cultivation development outside of the riparian buffers. Alternatively, the Discharger can contact Timberland Resource Consultants for establishment of buffers prior to future development.

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.

4. Spoils Management (Compliance: Y ☐/ N ☒)

- a. Spoils⁵ shall not be stored or placed in or where they can enter any surface water.
- b. Spoils shall be adequately contained or stabilized to prevent sediment delivery to surface waters.
- c. Spoils generated through development or maintenance of road's, 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.

Cultivation related soil spoils are stored in a large pile to the northeast of Cultivation Site 2 over winter and show no sign of movement where they can enter a watercourse. However, upon assessment soil and perlite was found to be slowly migrating away from the soil pile into a drainage feature on the road in which the soil pile is located.

To be in compliance with this Standard Condition and to prevent the migration of the soils from this pile, or any newly created cultivation related soil spoil pile, the Discharger shall tarp the soil pile during the wet season and place fiber waddles around the entire pile. There are no spoil piles generated from development or maintenance of road's, driveways, earthen fill pads, or other cleared or filled areas where they can enter or be transported to surface waters.

5. Water Storage and Use (Compliance: Y ☒/ N ☐)

- 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.

This project consists of two cultivation sites totaling 21,000-square feet of cultivation area.

- **Cultivation Site 1 consists of two 30' x 100' mixed light greenhouses on a gradual hillside with an approximate 18% slope.**
- **Cultivation Site 2 consists of five 30' x 100' mixed light greenhouses on gradual hillside with an approximate 16% slope.**

The Discharger stated that they used an estimated 447,420-gallons of water during the 2016 cultivation season. The Discharger shall install water meters to better document usage.

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.

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

- 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.

The Discharger implements water conservation measures such as irrigating at an agronomic rate, 1.5 gallons per plant every other day during peak usage, using only greenhouses for cultivation, and covering the greenhouse floors with river run rock to minimize erosion and to minimize evaporative loss. The Discharger shall install float-valves on appropriate storage tanks to prevent overflow of the tanks water onto ground.

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

The Discharger does not divert surface waters for cultivation purposes therefore does not need to develop off-stream storage facilities. The Discharger currently has approximately 10,600-gallons of dedicated water storage for cultivation (1 x 5,000-gallon tanks, 1 x 2,500-gallon tank, 2 x 1,550-gallon tank).

- d. Water is applied using no more than agronomic rates.⁷

There is no evidence to conclude that the Discharger irrigates at a greater rate than the growth medium can facilitate. No signs of over watering are present on-site.

- 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.

The Discharger does not divert surface waters.

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

Water storage tanks have been sited in secure locations to prevent their release into waters of the state.

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.

6. Irrigation Runoff (Compliance: Y☒/ N☐)

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.

There are no signs of irrigation runoff within the cultivation sites. The Discharger irrigates at an agronomic rate that does not result in runoff. Irrigating at agronomic rates, combined with the proximity of the cultivation areas from the watercourses, ensures there is little to no chance for any irrigation runoff to reach surface waters.

7. Fertilizers and Soil Amendments (Compliance: Y☐/ N☒)

- 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 Discharger keeps bottles of fertilizers and amendments in a large drying and storage shed to the northeast of Cultivation Site 1.

In order to remain in compliance with Standard Condition 7, the Discharger shall store all fertilizers (bagged, boxed, and bottled), potting soils, composts, and soil amendments in sheds, covered areas, or placed on pallets and tarped if stored outside. They shall be stored in a manner in which they cannot be transported to surface waters or such that nutrients or other pollutants cannot be leached into groundwater.

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

The Discharger shall ensure that fertilizers and soil amendments are applied and used per packaging instructions and/or at proper agronomic rates.

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

Upon assessment, cultivation soils and perlite were found to be transported away from Cultivation Site 2 via a storm water drainage in front of the greenhouses. The drainage flows run along the access road in front of the greenhouses and then drain across the road at Site 1. Drainage flows then drain onto the road approximately 30' above Road Point 3 and run down the road for approximately 400', transporting cultivation soils and perlite with the flows. Proper drainage of this road is addressed under Standard Condition A.1. These soils and perlite do not enter watercourses, but they are leaving Cultivation Site 2 during the post-harvest season.

Site 1 – To address the transportation of cultivation soils and perlite away from the cultivation site, the Discharger shall install a drainage ditch at the base of the cutbank west of the greenhouses. The Discharger shall then rock the drainage ditch and rock the adjacent road between the drainage ditch and the greenhouses. The Discharger shall then place staked wattles in the 50' leading up to drainage ditch before it crosses the road at Site 1 and also across the outflow area once the drainage flows cross the road, to capture and prevent soils and nutrients from leaving the cultivation site during the wet season.

8. Pesticides/Herbicides (Compliance: Y☒/ N☐)

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.

Pesticides shall be applied per specifications included in the packaging. The Discharger stores all pesticides and herbicides with the fertilizers and soil amendments. The Discharger shall ensure any pesticides or herbicides used are placed, used, and stored in a manner that ensures that they will not enter or be released into surface or ground waters.

9. **Petroleum products and other chemicals** (Compliance: Y ☐ / N ☒)

- 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.
- 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.
- c. Discharger's shall ensure that diked areas are sufficiently impervious to contain discharged chemicals.
- d. Discharger(s) shall implement spill prevention, control, and countermeasures (SPCC) and have appropriate cleanup materials available onsite.
- 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.

Bulk fuel is stored in two separate 1000-gallon steel storage tanks with secondary containment that appear to be in good condition and constructed of suitable materials. One tank does not have cover and side-wind protection from precipitation and has filled with water, the other tank does have cover but has begun to fill with water, possibly from precipitation before the covering roof was built. Also, next to the generator shed at Cultivation Site 2, two used oil canisters were found outside of the generator shed without cover or containment.

In order to be in compliance, any portable fuel cans and drums that contain fuel shall be stored indoors within garages or storage sheds, or if stored outdoors be contained within a secondary containment vessels large enough for the entire capacity and be covered from precipitation. Fuel storage tanks shall also have secondary containment vessels large enough for the entire capacity and be covered from precipitation. Also, the Discharger shall ensure that secondary containment tubs do not have water in them and that they are drained as fast as possible.

10. Cultivation-related wastes (Compliance: Y ☐ / N ☒)

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 groundwater's.

During the assessment, there were no non-organic cultivation-related wastes found on the property where they can enter watercourses. Dead and harvested plant waste is composted or burned near the cultivation areas or in other areas far from any watercourses. There are cultivation related soils located in a large pile northeast of the cultivation area. This soil pile is addressed under Standard Condition A. 4. There are unused smart pots with soil located approximately 75' southeast of Cultivation Site 2 next to a drainage ditch. The Discharger shall remove all pots, non-organic wastes and soils from this site.

In order to be in compliance with Standard Condition 10 above, all cultivation-related waste in the form of empty bags, containers, pots, and dead or harvested plant waste and spent growth medium shall be stored where they will not enter or be blown into surface waters, or removed from the site and disposed of properly. Cultivation-related wastes that contain residues or pollutants shall be stored in a manner that ensures that those materials do not leach into surface water or groundwater's. This can be achieved by following Items 137 and 139 in Appendix B of the Order.

11. Refuse and human waste (Compliance: Y ☒ / N ☐)

- 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.

There are no septic systems located on the property. The Discharger stated that they used the adjacent property's restroom facilities. The Onsite Wastewater Treatment System (OWTS) serving the residence and cabins on the adjacent property appears to be functioning properly. No evidence of dispersal field failure was detected when inspected. It is likely that this system will fall under Tier O (existing systems that are properly functioning and do not meet the conditions of failing systems or otherwise require corrective action – as defined in the RWQCB OWTS Policy and Humboldt County Local Agency Management Plan).

- 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.

The Discharger stores garbage in sealed bags or covered garbage cans with lids. Garbage is stored under the awnings of the drying shed to the east of Cultivation Site 1 or under the awnings attached to the greenhouses at Cultivation Site 2, far from any watercourses. Garbage is also stored in a utility trailer by the small cabin in the western corner of the adjacent property (WDID# B161285CHUM) for later transportation to the dump.

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

The Discharger stated they dispose of trash at the Eel River Resource Recovery Transfer Station in Redway, CA or at the Eel River Resource Recovery Center in Fortuna, CA.

In order to remain in compliance with Standard Condition 11. b. and c. above, 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. This can be accomplished by storing garbage in covered containers or keeping it tarped during the winter. Garbage and refuse shall be disposed of at an appropriate waste disposal location. See Appendix B. Item 141 of the Order.

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 rock native-surfaced road's. 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 below in the Mitigation Report and also noted above in the document.

Mitigation Report (Identified Sites Requiring Remediation)

Unique Point(s)	Map Point Description	Associated Standard Condition	Temporary BMP	Permanent BMP	Priority for Action	Time Schedule for completion of Permanent BMP	Completion Date
RP 1	Surface flows coming from the residence area on the adjacent parcel are concentrating and running down the road's surface resulting in erosion of the road's surface.	A.1. a.	N/A	Install a leadout ditch to drain the road's surface per attached specifications.	3	2018	
RP 2	Surface flows coming from the residence area on the adjacent parcel are concentrating and running down the road's surface resulting in erosion of the road's surface.	A.1. a.	N/A	Install a rocked rolling dip per attached specifications.	3	2018	
RP 3	Surface flows coming from Cultivation Site 1 are concentrating and draining onto Cultivation Site 2's landing resulting in saturation and rutting of the landing.	A.1. a.	N/A	install a leadout ditch draining the road's surface into the woods to the south.	3	2018	
RP 4	Surface flows coming from Cultivation Site 1 are concentrating and draining onto Cultivation Site 2's landing resulting in saturation and rutting of the landing.	A.1. a.	N/A	Install a rocked rolling dip per attached specifications.	3	2018	
RP 5	Runoff from Cultivation Site 2 is draining onto the road above this Road Point, flowing through the rolling dip, and draining down the road's surface for another ~400' resulting in erosion of the road's surface and transportation of cultivation soils and perlite. The rocked rolling dip at Road Point 5 is not capturing these surface flows as intended due to it not having enough of an outslope and large enough dip.	A.1. a.	N/A	Re-grade this rocked rolling dip so that it captures all surface flows coming from Cultivation Site 2 and drains them into the woods to the northeast, not allowing them to drain down the road's surface any further.	3	2018	
RP 6, 7 & 8	Located at these Road Points are rocked rolling dips that are not functioning.	A.1. a.	N/A	Re-grade/install a rocked rolling dip so that it captures all surface flows and drains them off the road's surface at these locations.	3	2018	

DRC 1	12" diameter ditch relief culvert that is lacking rock armoring of the inlet and an energy dissipater at the outlet of the culvert.	A.1. b.	N/A	Rock armor the inlet and install an energy dissipater at the outlet per attached specifications.	3	2018	
Site 1	Cultivation soils and perlite were found to be transported away from Cultivation Site 2 via a storm water drainage in front of the greenhouses. The drainage flows run along the access road in front of the greenhouses and then drain across the road at Site 1. Drainage flows then drain onto the road approximately 30' above Road Point 3 and run down the road for approximately 400', transporting cultivation soils and perlite with the flows.	A.7. c.	N/A	Install a drainage ditch at the base of the cutbank west of the greenhouses. Rock the drainage ditch and rock the adjacent road between the drainage ditch and the greenhouses. Place staked wattles in the 50' leading up to drainage ditch before it crosses the road at Site 1 and also across the outflow area once the drainage flows cross the road, to capture and prevent soils and nutrients from leaving the cultivation site during the wet season.	3	2018	
Site 2	The fill slope along the northeast side of Cultivation Site 2's landing has settled and created fissure cracks in the fill slope. The fill's slope is also steeper than the minimum 1.5:1 slope.	A.1. c.	N/A	Layback the fill slope to a 1.5:1 slope and re-compact the fill. The Discharger shall then install erosion control mats and seed and mulch the fill slope.	3	2018	
Site 3	The fill prism at Site 3 is developing gullies due to concentrated storm water drainage coming off of Cultivation Site 2's landing.	A.1. d.	N/A	Install a rocked drainage ditch and a rocked outflow over the fill slope to concentrate and direct storm water flows coming from Cultivation Site 2 in way that does not result in further gulling and erosion of the landing and fill slope. Alternatively, install the rocked drainage ditch so that it does not drain over any fill slope and towards the swale area that Road Point 4 will drain into.	3	2018	
Old smart pots	There are unused smart pots with soil located approximately 75' southeast of Cultivation Site 2 next to a drainage ditch.	A.10	N/A	Remove all pots, non-organic wastes and soils from this site.	3	2018	
Soil spill pile	Soil and perlite was found to be slowly migrating away from the soil pile into a drainage feature on the road in which the soil pile is located.	A.4.	N/A	Tarp the soil pile during the wet season and fiber wattles around the entire pile.	3	2018	

Fuel & oil storage	Fuel tanks without cover with their secondary containment filling or full of water, oil/fuel canisters without secondary containment or in covered structures	A. 9.	N/A	--Install permanent cover on both 1000-gallon tanks or cover the tanks with a tarp during and prior to and during rain events. --Portable fuel cans and drums that contain fuel or oil shall be stored indoors within garages or storage sheds, or if stored outdoors be contained within a secondary containment vessels large enough for the entire capacity and be covered from precipitation. --Drain secondary containment of water from both tanks	3	2018	
--------------------	---	-------	-----	--	---	------	--

Treat Priority: Treatment Priority (1) indicates a very high priority with treatment being planned to occur immediately, (2) indicates a high priority site with treatment to occur prior to the start of the winter period (Oct. 15), (3) indicates a moderate priority with treatment being planned to occur within one year, or prior to the winter period (Oct. 15) of the 2nd season of operations, and (4) indicates a low priority with treatment being planned to occur in the shortest time possible, but no later than the expiration of this Order (five years).

Attached Photo's



Road Point 1: Install a leadout ditch to drain the road's surface per attached specifications.



Road Point 2: Install a rocked rolling dip per attached specifications.



Road Point 3: Install a leadout ditch draining the road's surface into the woods to the south.



Road Point 4: Install a rocked rolling dip here per attached specifications.



Road Point 5



Road Point 5 (cont.): Re-grade/install a rocked rolling dip so that it captures all surface flows and drains them off the road's surface.



Road Point 6: Re-grade/install a rocked rolling dip so that it captures all surface flows and drains them off the road's surface.



Road Point 7: Re-grade/install a rocked rolling dip so that it captures all surface flows and drains them off the road's surface.



Road Point 8



Road Point 8 (cont.): Re-grade/install a rocked rolling dip so that it captures all surface flows and drains them off the road's surface.



Ditch Relief Culvert 1



Ditch Relief Culvert 1 (cont.): Rock armor the inlet and install an energy dissipater at the outlet per attached specifications.



Site 1: Install a drainage ditch at the base of the cutbank west of the greenhouses. Rock the drainage ditch and rock the adjacent road between the drainage ditch and the greenhouses. Place staked wattles in the 50' leading up to drainage ditch before it crosses the road at Site 1 and also across the outflow area once the drainage flows cross the road, to capture and prevent soils and nutrients from leaving the cultivation site during the wet season.



Site 1 (cont.)



Site 1 (cont.):



Site 2: Layback the fill slope to a 1.5:1 slope and re-compact the fill. The Discharger shall then install erosion control mats and seed and mulch the fill slope.



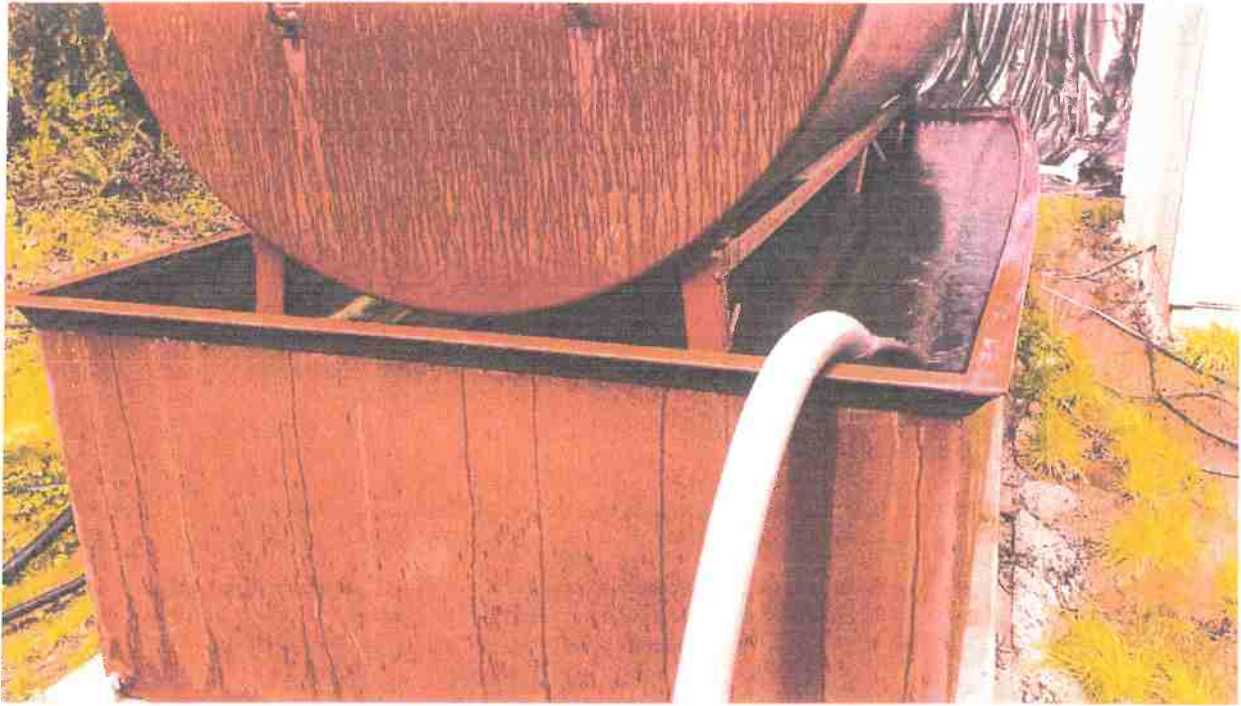
Site 3: Install a rocked drainage ditch and a rocked outflow over the fill slope to concentrate and direct storm water flows coming from Cultivation Site 2 in way that does not result in further gulling and erosion of the landing and fill slope. Alternatively, install the rocked drainage ditch so that it does not drain over any fillslope and towards the swale area that Road Point 4 will drain into.



Old smart pots: Remove all pots, non-organic wastes and soils from this site.



Soil spoil pile: Tarp the soil pile during the wet season and fiber waddles around the entire pile.



Fuel & oil storage: Install permanent cover on both 1000-gallon tanks or cover the tanks with a tarp during and prior to and during rain events. Drain secondary containment of water from both tanks.



Fuel & oil storage (cont.): Portable fuel cans and drums that contain fuel or oil shall be stored indoors within garages or storage sheds, or if stored outdoors be contained within a secondary containment vessels large enough for the entire capacity and be covered from precipitation.

Attachments

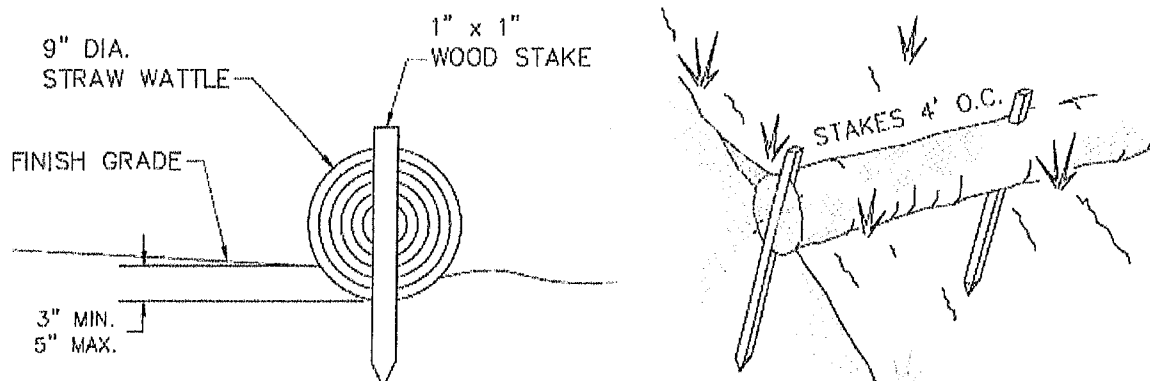
BMP: General Erosion Control Techniques

TABLE 34. Guidelines for erosion and sediment control application

Timing of application	Technique	Portion of road and construction area treated
Erosion control during construction	Hydromulching, hydroseeding	Road fill slopes, cut slopes, bare soil areas
	Dry seeding	Road fill slopes, cut slopes, bare soil areas
	Wood chip, straw, Excelsior or tackified mulch	Road fill slopes, cut slopes, bare soil areas
	Straw wattles	Road fill slopes and cut slopes
	Gravel surfacing	Road, landing and turnout surfaces
	Dust palliative	Road surfaces
	Minimize disturbance (soil and vegetation)	All areas peripheral to construction
Sediment control during construction	Sediment basin	Roadside ditches, turnouts and small stream crossings
	Sediment traps (e.g., silt fences, straw bales barriers, woody debris barriers)	Road fill slopes, cutbanks, bare soil areas and ditches
	Straw bale dams	Ditches and small streams
	Sumps and water pumps	Stream channels and stream crossings
	Streamflow diversions (e.g., temporary culverts, flex pipe, etc.)	Stream channels and stream crossings
	Surface diversion and dispersion devices (pipes, ditches, etc.)	All disturbed bare soil areas
	Road shaping	Road and landing surfaces
	Gravel surfacing	Road, landing and turnout surfaces
	Bituminous or asphalt surfacing	Road surface
	Rolling dips	Road surface
Permanent erosion control	Ditch relief culverts	Roadbed and road fill
	Downspouts and berm drains	Road fill slopes
	Waterbars	Road and landing surfaces
	Berms	Road surface and roadside areas
	Ditches	Road and landing surfaces
	Riprap	Road fill slopes, stream crossing fills, cutbanks, stream and lake banks
	Soil bioengineering	Road fill slopes, cut slopes, stream crossings, streambanks
	Tree planting	Road fill slopes, cutbanks, bare soil areas, stream crossings, streambanks

BMP: Erosion Control

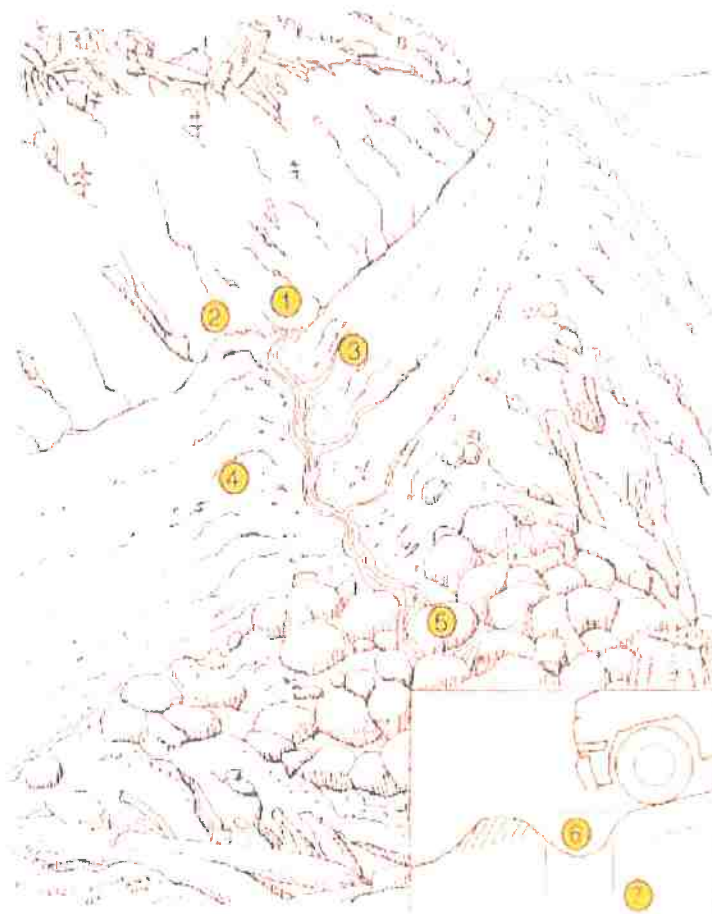
- Erosion control and sediment detention devices and materials shall be incorporated into the cleanup/restoration work design and installed prior to the end of project work and before the beginning of the rainy season. Any continuing, approved project work conducted after October 15 shall have erosion control works completed up-to-date and daily.
- Erosion control materials shall be, at minimum, stored on-site at all times during approved project work between May 1 and October 15.
- Approved project work within the 5-year flood plain shall not begin until all temporary erosion controls (straw bales or silt fences that are effectively keyed-in) are installed downslope of cleanup/restoration activities.
- Non-invasive, non-persistent grass species (e.g., barley grass) may be used for their temporary erosion control benefits to stabilize disturbed slopes and prevent exposure of disturbed soils to rainfall.
- Upon work completion, all exposed soil present in and around the cleanup/restoration sites shall be stabilized within 7 days.
- Soils exposed by cleanup/restoration operations shall be seeded and mulched to prevent sediment runoff and transport.
- Straw Wattles (if used) shall be installed with 18 or 24-inch wood stakes at four feet on center. The ends of adjacent straw wattles shall be abutted to each other snugly or overlapped by six inches. Wattles shall be installed so that the wattle is in firm contact with the ground surface.



BMP: Waterbreaks

FIGURE 40. Waterbars are constructed on unsurfaced forest and ranch roads that will have little or no traffic during the wet season. The waterbar should be extended to the cutbank to intercept all ditch flow (1) and extend beyond the shoulder of the road. A berm (2) must block and prevent ditch flow from continuing down the road during flood flows. The excavated waterbar (3) should be constructed to be self-cleaning, typically with a 30° skew to the road alignment with the excavated material bermed on the downhill grade of the road (4). Water should always be discharged onto the downhill side on a stable slope protected by vegetation. Rock (shown in the figure) should not be necessary if waterbars are spaced close enough to prevent serious erosion. (5) The cross ditch depth (6) and width (7) must allow vehicle cross-over without destroying the function of the drain. Several alternate types of waterbars are possible, including one that drains only the road surface (not the ditch), and one that drains the road surface into the inside ditch (BCMF, 1991).

HANDBOOK FOR FOREST, RANCH, AND RURAL ROADS



BMP: Inlet and Outlet Armoring

- Inlets of culverts and associate fills shall be protected with rock armoring that extends at least as high as the top of the culvert.
- Outlets of culverts shall be provided a rock energy dissipater at the outfall of the culvert.
- Outlets of culverts and associate fills shall be protected with rock armoring that extends at least as high as the top of the culvert if road fill sloughing into channel can occur.
- Prior to inlet and outlet rocking, the inlet and outlets shall be prepared. Preparation will include removal of vegetation and stored materials from the inlet and outlet.
- Inlets may require construction of an inlet basin.
- Slopes at the outlet should be shaped to a 2:1 or natural slope prior to placing rock armor.
- Rock used at culvert inlets and outlets should be a matrix of various sized rocks and rip-rap that range from a 3" dia. to a 2' dia.
- The largest rocks should be places at the base of the culvert or fill. Incrementally smaller rocks shall be placed over the larger rocks at the armoring extend up the slope. Voids and spaces shall be back filed with smaller gravels and rocks.

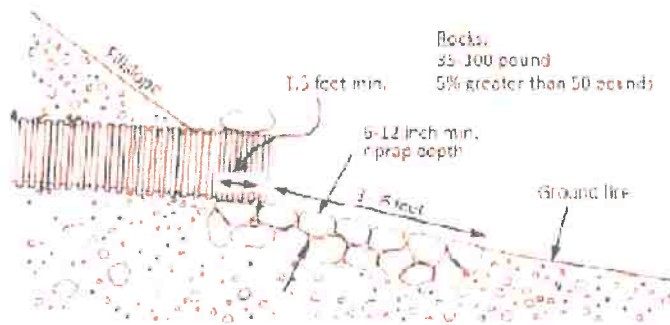


FIGURE 107A. Riprap armor at culvert outlet (Modified from: Keller et al., 2011).



FIGURE 107B. Riprap armor at culvert inlet (Keller and Sternal, 2003).

HANDBOOK FOR FOREST, RANCH AND RURAL ROADS

BMP: Rocked Rolling Dip/Lead Out Ditch



FIGURE 55. Steep roads that go straight up or down a hillside are very difficult to drain. This steep, fall line road developed a through cut cross section that was drained using lead out ditches to direct runoff off the road and onto the adjacent, vegetated hillside. The road was "outsloped" to drain runoff to the right side, and the lead out ditch was built slightly steeper than the road grade, to be self-cleaning. Four lead out ditches have been constructed at 100-foot intervals to the bottom of the hillside.

HANDBOOK FOR FOREST RANGERS AND RURAL ROADS

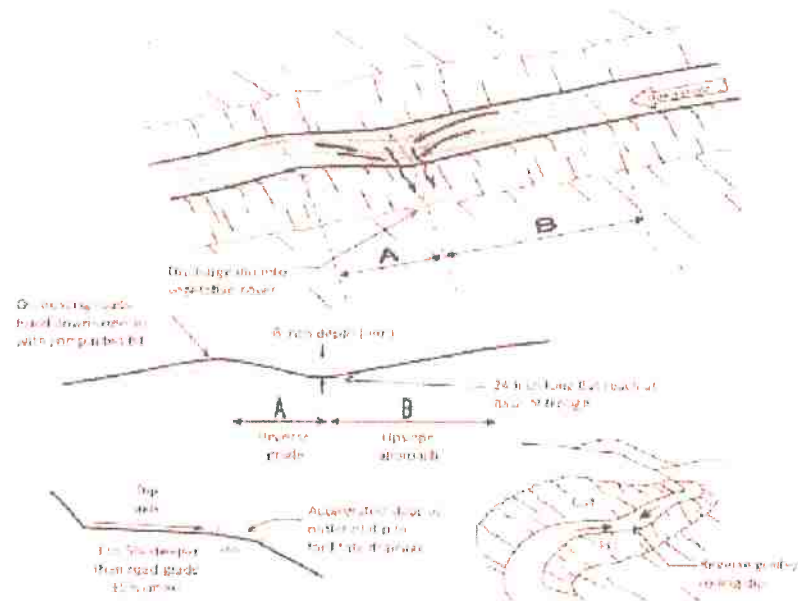
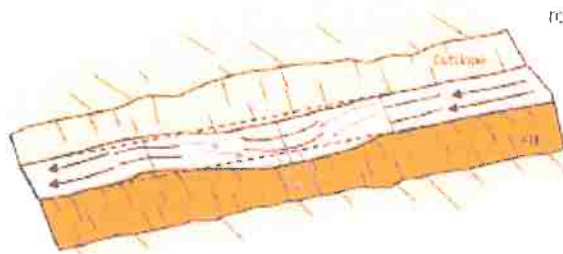
BMP: Rocked rolling dip (cont.)

FIGURE 34. A classic Type I rolling dip, where the excavated up-road approach (B) to the rolling dip is several percent steeper than the approaching road and extends for 60 to 80 feet to the dip axis. The lower side of the structure reverses grade (A) over approximately 15 feet or more, and then falls down to rejoin the original road grade. The dip must be deep enough that it is not obliterated by normal grading, but not so deep that it is difficult to negotiate or a hazard to normal traffic. The outward cross-slope of the dip axis should be 3% to 5% greater than the up-road grade (B) so it will drain properly. The dip axis should be out-sloped sufficiently to be self-cleaning, without triggering excessive downcutting or sediment deposition in the dip axis (Modified from: Best, 2013).

HANDBOOK FOR FOREST, RANCH AND RURAL ROADS

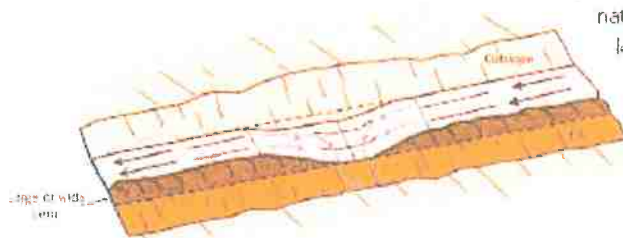
BMP: Rocked rolling dip (cont.)

Type 1 Rolling Dip (Standard)



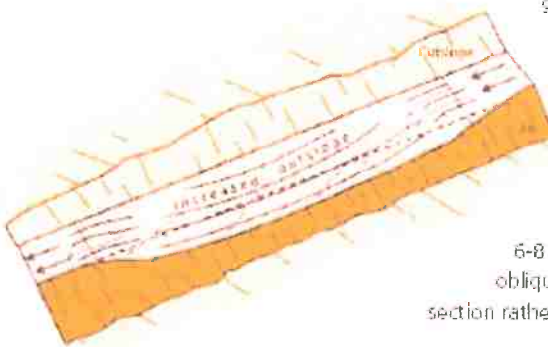
Type 1 rolling dips are used where road grades are less than about 12-14% and road runoff is not confined by a large through cut or berm. The axis of the dip should be perpendicular to the road alignment and sloped at 3-4% across the road tread. Steep roads will have longer and more abrupt dip dimensions to develop reverse grade through the dip axis. The road tread and/or the dip outlet can be rocked to protect against erosion, if needed.

Type 2 Rolling Dip (Through-cut or thick berm road reaches)



Type 2 rolling dips are constructed on roads up to 12-14% grade where there is a through cut up to 3 feet tall, or a wide or tall berm that otherwise blocks road drainage. The berm or native through cut material should be removed for the length of the dip, or at least through the axis of the dip, to the extent needed to provide for uninterrupted drainage onto the adjacent slope. The berm and slope material can be excavated and endhauled, or the material can be sidecast onto native slopes up to 45%, provided it will not enter a stream.

Type 3 Rolling Dip (Steep road grade)



Type 3 rolling dips are utilized where road grades are steeper than about 12% and it is not feasible to develop a reverse grade that will also allow passage of the design vehicle (steep road grades require more abrupt grade reversals that some vehicles may not be able to traverse without bottoming out).

Instead of relying on the dip's grade reversal to turn runoff off the roadbed, the road is built with an exaggerated outslope of 6-8% across the dip axis. Road runoff is deflected obliquely across the dip axis and is shed off the outsloped section rather than continuing down the steep road grade.

FIGURE 36. Rolling dip types

HANDBOOK FOR FOREST, RANCH AND RURAL ROADS

**STATEMENT OF CONTINGENT AND LIMITING CONDITIONS
CONCERNING THE PREPARATION AND USE OF WATER RESOURCE
PROTECTION PLAN**

Prepared by Timberland Resource Consultants

1. This Water Resource Protection Plan has been prepared for the property within APN 214-211-003 in Humboldt County, at the request of the Client.
2. Timberland Resource Consultants does not assume any liability for the use or misuse of the information in this Water Resource Protection Plan.
3. The information is based upon conditions apparent to Timberland Resource Consultants at the time the inspection was conducted, and as disclosed to Timberland Resource Consultants by the landowner and/or Discharger. Changes due to land use activities or environmental factors occurring after this inspection, have not been considered in this Water Resource Protection Plan.
4. Maps, photos, and any other graphical information presented in this report are for illustrative purposes. Their scales are approximate, and they are not to be used for locating and establishing boundary lines.
5. The conditions presented in this Water Resource Protection Plan may differ from those made by others or from changes on the property occurring after the inspection was conducted. Timberland Resource Consultants does not guarantee this work against such differences.
6. Timberland Resource Consultants did not conduct an investigation on a legal survey of the property.
7. Persons using this Water Resource Protection Plan are advised to contact Timberland Resource Consultants prior to such use.
8. Timberland Resource Consultants will not discuss this report or reproduce it for anyone other than the Client named in this report without authorization from the Client.



Forrest Hansen
Timberland Resource Consultants

WRPP Site Map WDID: 1B161469CHUM

- Property Boundary
- Permanent Rocked Road
- Road Point (RP)
- Ditch Relief Culvert (DRC)
- Stream Crossing (SC)
- Site



- Septic
- Compost pile
- Generator
- Fuel storage
- Burn pile
- Cabin
- Drying/storage shed



- Greenhouse cultivation
- Old smart pots
- Storm water drainage
- Drainage path to be eliminated
- Class III watercourse
- Class II watercourse
- Well
- Water tanks



2016 NAIP DOQ - 40' contours
Map Scale 1" = 350'
Map Date 3/30/2017
N 1/4 of Section 24, T3S, R9E,
HB&M, USGS Miranda 7.5'



WRPP Site Map

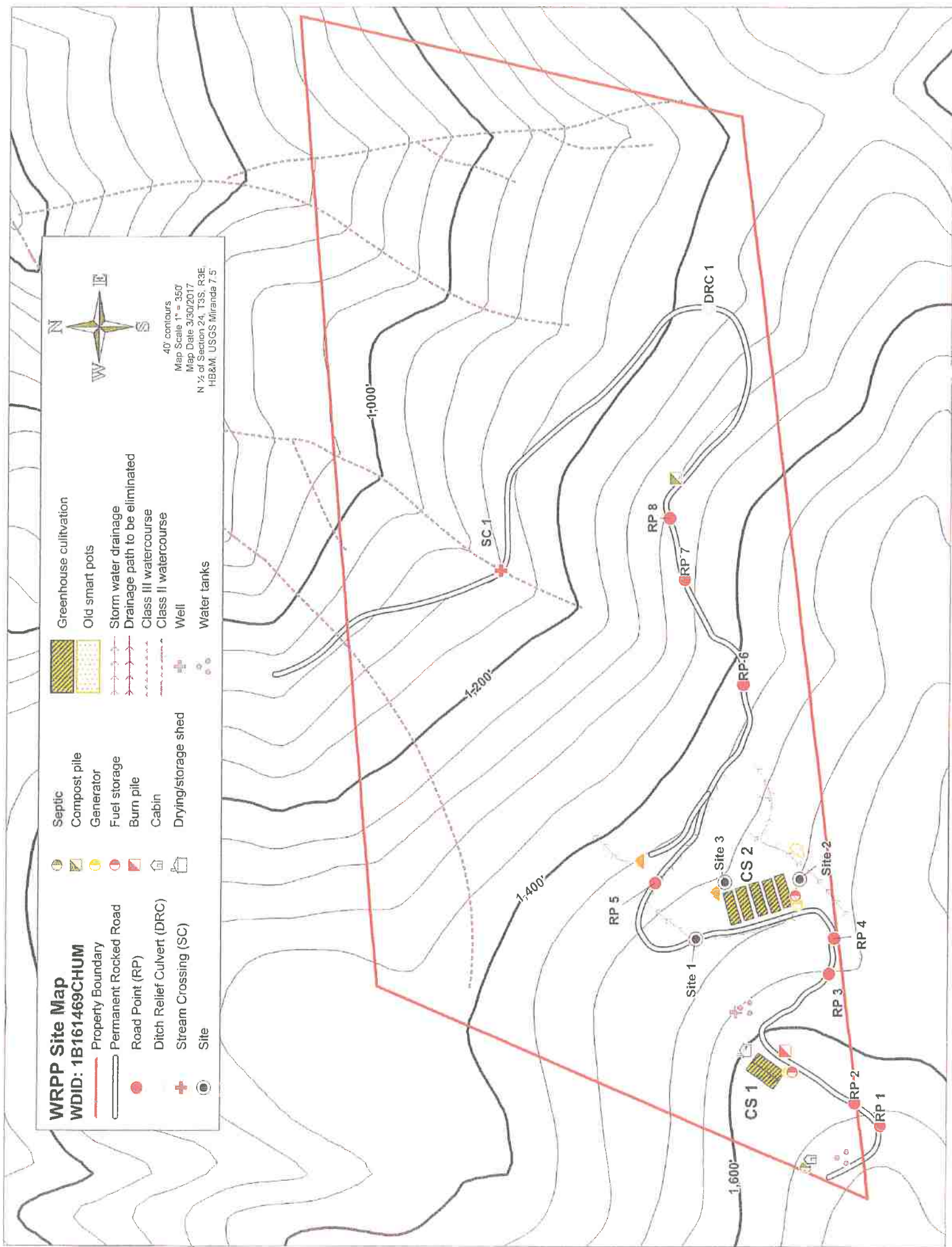
WDID: 1B161469CHUM

- Property Boundary
- Permanent Rocked Road
- Road Point (RP)
- Ditch Relief Culvert (DRC)
- Stream Crossing (SC)
- Site

- Septic
- Compost pile
- Generator
- Fuel storage
- Burn pile
- Cabin
- Drying/storage shed

- Greenhouse cultivation
- Old smart pots
- Storm water drainage
- Drainage path to be eliminated
- Class III watercourse
- Class II watercourse
- Well
- Water tanks

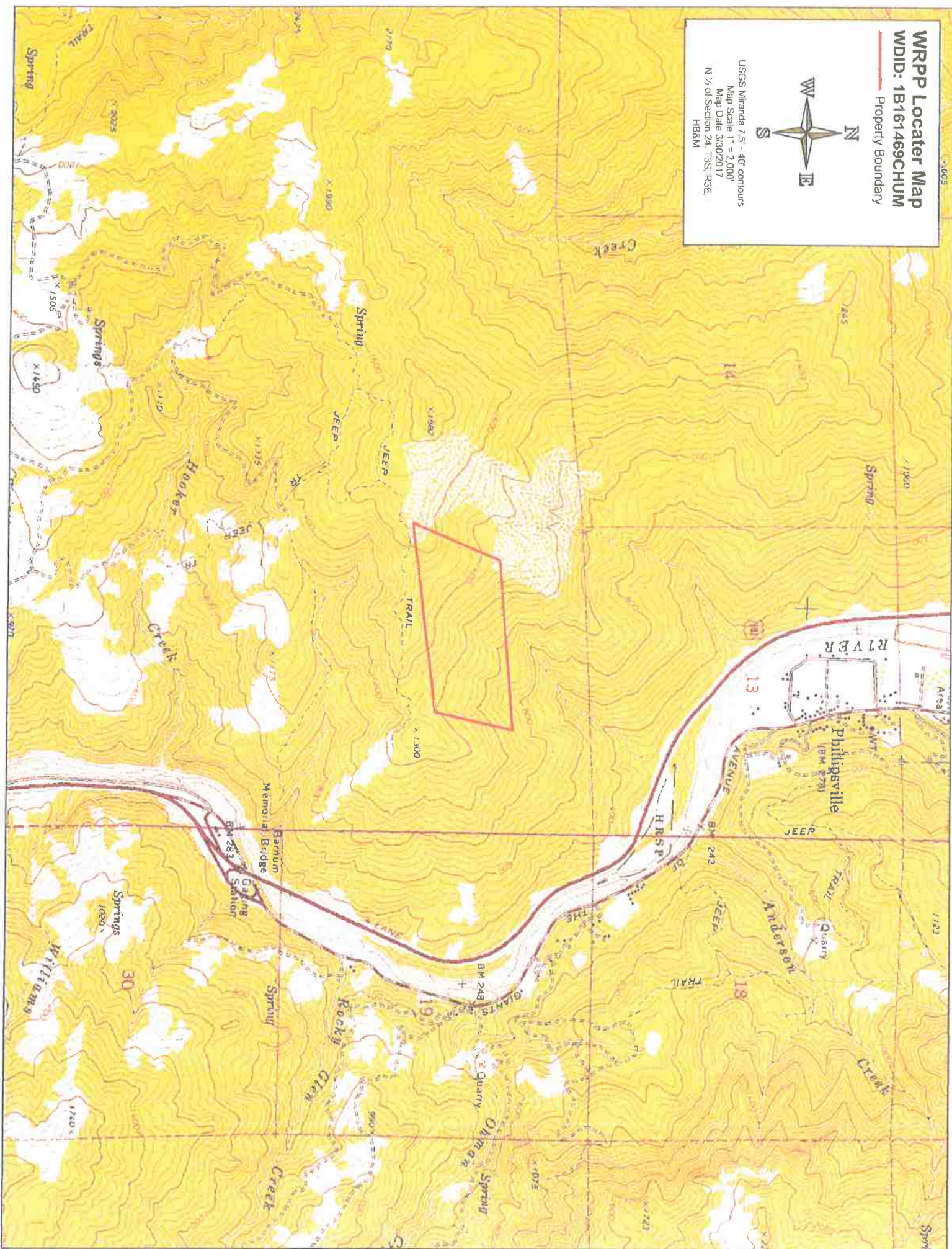
40' contours
Map Scale 1" = 350'
Map Date 3/30/2017
N 1/2 of Section 24, T3S, R3E,
HB&M, USGS Miranda 7.5'



Property Boundary



USGS Miranda 7.5 - 40' contours
Map Scale 1" = 2,000'
Map Date 3/30/2017
N ½ of Section 24, T3S, R3E,
HB&M



**Order No. R1-2015-0023
REPORTING FORM****A. Site WDID:** 1B161469CHUM**B. Subwatershed (HUC-12):** 180101060405**C. Enrollment date:** 9/9/2016**D. Reporting date:** 3/31/2017**E. Please check the box corresponding to the enrolled site's current tier (Tier 3 sites with cultivation must also check Tier 2).**Tier 1 ☐ Tier 2 ☒ Tier 3 ☐**Has the site's tier status changed since the last reporting period?** Y ☐/N ☐

If YES, briefly explain:

F. Check all fields that apply to the enrolled site:**i. Tier 1 sites:**

(see Order at page 6 for details on Tier 1 characteristics)

- ☐ Average slope of each individual cultivation area is no more than 35% slope.
- ☐ Total cultivation area is no more than 5,000 square feet.
- ☐ No cultivation areas or associated facilities are located within 200 feet of a surface water. (Surface waters include wetlands and Class I, II, and III watercourses.)
- ☐ No surface water diversion from May 15 through October 31.
- ☐ The site is in compliance with all Standard Conditions under Order R1-2015-0023, section I.A.

ii. Tier 2 sites:**a. A Water Resource Protection Plan has been developed and is being implemented?**Y ☐/N ☒

If NO, expected date when plan will be ready and implementation will begin:

3/8/2017If YES, have there been changes to the implementation schedule since the prior year of reporting? Y ☐/N ☐

REPORTING FORM**PAGE 3/5**

- d. Will work to bring site into compliance with Standard Conditions require disturbance to a stream or wetland over the coming year? Y ☐ /N ☒

If YES, indicate status of work authorization by Regional Water Board. Specifically, check one or more of the following and provide the date if/as applicable.

- ☐ I plan to submit my project plans to the Regional Water Board by the following date:
- ☐ I submitted my project plans to the Regional Water Board on the following date:
- ☐ The Regional Water Board Executive Officer authorized my project plans on the following date:
- ☐ I have elected to receive authorization for instream work under a different Regional Water Board permitting mechanism as follows:
- ☐ Instream work anticipated to occur between the following dates:

iii. Tier 2* sites:

Total cultivation area is less than 10,000 square feet? Y ☐ /N ☐

Water resource protection plan developed and fully implemented? Y ☐ /N ☐

All Standard Conditions met? Y ☐ /N ☐

Site was inspected and verified as Tier 2* by Regional Water Board staff (NAME) or approved third party program (NAME): ___ on (DATE)

iv. Tier 3 Sites:

- ☐ A Cleanup and Restoration Plan has been submitted to the Regional Water Board for approval.
- ☐ The Cleanup and Restoration Plan has been approved by the Regional Water Board.
- ☐ The timeline for the approved Cleanup and Restoration plan is being followed.
- Will restoration work require disturbance to a stream or wetland in the coming year? Y ☐ /N ☐
- Instream work anticipated to occur between the following dates: _
- ☐ Cannabis cultivation is occurring or will occur on the site over the coming year. (If this box is checked, ensure that Tier 2 portions of the reporting form are completed as well).

REPORTING FORM**PAGE 4/5****v. For All Sites:**

Annual Reporting Period (Calendar Year), or CHECK HERE ☐ if this is the report accompanying initial enrollment.

1/1/2016 To 12/31/2016
 Month/Day/Year Month/Day/Year

Total cultivation area (square feet)	21,000
Distance to surface waters (feet) from nearest edge of each cultivation area or associated facility. Provide distance measurements for each cultivated area separately, as appropriate.	Over 500'
Average slope (percent slope) of each cultivated area List each cultivated area separately, as appropriate.	CS 1: ~18% CS 2: ~16%
Total number of road crossings of surface waters Surface waters include wetlands and Class I, II, and III watercourses.	1
Annual soil amendment and chemical use (pounds or gallons). Total mass and/or volume of soil amendment and/or chemical usage by type, product name, and nutrient content such as N-P-K ratio, if applicable.*	Will monitor
Total water storage capacity (gallons)	10,600
Total surface water diversion by month (gallons)*	
Jan.	Feb.
Mar.	April
May	June
July	Aug.
Sept.	Oct.
Nov.	Dec.
0	0
0	0
0	0
0	0
0	0
0	0
0	0

Water input to storage by source and month (gallons) Report water volume input to storage, listing each source separately. This may include inputs from rainfall catchment, surface water diversions, groundwater pumping, or water delivery. If water is delivered, list delivery date, delivery volume, and name and address of water purveyor.*

Source	Jan.	Feb.	Mar	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Well	0	0	10000	29937	53222	66528	70686	83160	26195	49480	58212	0

Water use by source and month (gallons) Report water volume used, listing each source separately. This may include use of stored water, immediate use of pumped groundwater, diverted surface water, or delivered water. If water is delivered, list delivery date, delivery volume, and name and address of water purveyor.*

Source	Jan.	Feb.	Mar	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Storage	0	0	10000	29937	53222	66528	70686	83160	26195	49480	58212	0

*Upon initial enrollment only, a best estimate is acceptable for reporting annual soil amendment and chemical use, monthly water stored, and monthly water use. Attach additional sheets if more space is needed for your responses.

All values are initial estimates. All water capture by source and usage for cultivation, as well as soil, soil amendments, fertilizers, pesticides and herbicides will need to be metered and monitored for better documentation.

REPORTING FORM

Page 5/5

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision. The information contained in this document and all attachments is, to the best of my knowledge and belief, true, accurate, and complete.

Print name: Forrest HansenSignature: Forrest HansenDate: 4/27/2017

Preparer: Complete if MRP was prepared by someone other than the discharger, including an approved third-party

Organization Name (if applicable):Timberland Resource Consultants**Prepared by:**

First Name, Middle Initial

Forrest, T.

Last Name

Hansen**Preparer Address:**

Street

165 S. Fortuna Blvd

City

Fortuna

State

CA

ZIP

95540

Phone Number

707-725-1897

Email Address

trc@timberlandresource.com