



Site Management Plan

(Tier 2, Low Risk)

WDID-1_12CC417037

**Humboldt County
APN: 522-073-002**

Prepared by:



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Purpose

This Site Management Plan (SMP) has been prepared on behalf of the cannabis cultivator for the Humboldt County property identified as assessor parcel numbers 522-073-002, by agreement and in response to the State Water Resources Control Board Cannabis Cultivation Policy (Cannabis Policy), in congruence with Order WQ 2017-0023-DWQ General Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities (General Order). The General Order implements the Cannabis Policy requirements, specifically those requirements that address waste discharges associated with cannabis cultivation activities. Cannabis cultivators covered under the General Order are subject to the requirements of the Cannabis Policy in its entirety. The Cannabis Policy provides a statewide tiered approach for permitting discharges and threatened discharges of waste from cannabis cultivation and associated activities, establishes a personal use exemption standard, and provides conditional exemption criteria for activities with a low threat to water quality.

Tier Designation

Tiers are defined by the amount of disturbed area. Tier 1 outdoor commercial cultivation activities disturb an area equal to or greater than 2,000 square feet and less than 1 acre (43,560 square feet). Tier 2 outdoor commercial cultivation activities disturb an area equal to or greater than 1 acre. Risk designation for Tier 1 and Tier 2 enrollees under the Cannabis Policy is based on the slope of disturbed areas and the proximity to a surface water body. Characterization is based on the risk designation summarized in Table 1 below.

Table 1: Summary of Risk Designation

Low Risk	Moderate Risk	High Risk
<ul style="list-style-type: none"> No portion of the disturbed area is located on a slope greater than 30 percent, and All of the disturbed area complies with the setback requirements. 	<ul style="list-style-type: none"> Any portion of the disturbed area is located on a slope greater than 30 percent, and All of the disturbed area complies with the setback requirements. 	<ul style="list-style-type: none"> Any portion of the disturbed area is located within the setback requirements.

Thorough assessment of the project area including roads, disturbed areas, legacy features, and cultivation areas classify this enrollment into the **Tier 2, Low Risk** designation.

Scope of Report

Tier 1 and Tier 2 cannabis cultivators are required to submit and implement a Site Management Plan that describes how they are complying with the Requirements listed in Attachment A. The description shall describe how all applicable Best Practicable Treatment or Control (BPTC) measures are implemented. Cannabis cultivators within the North Coast Regional Water Quality Control Board jurisdiction are required to submit and implement Site Management Plans that describe how the Requirements are implemented property-wide, to include legacy activities. The SMP includes an Implementation Schedule to achieve compliance, but all work must be completed by the onset of the Winter Period each year. Projects designated as Moderate Risk are also required to have a Site Erosion and Sediment Control (plan) to achieve the goal of minimizing the discharge of sediment off-site. Projects designated as High Risk are also required to have a Disturbed Area Stabilization Plan to achieve the goal of stabilizing the disturbed area to minimize the discharge of sediment off-site and comply with the setback requirements. The cannabis cultivator shall ensure that all site operating personnel are familiar with the contents of the General Order and all technical reports prepared for the property. Projects which have over one acre of cannabis cultivation (total canopy area) are also required to have a Nitrogen Management Plan to describe how nitrogen is stored, used, and applied to crops in a way that is protective of water quality. A copy of the General Order, and technical reports required by the General Order, shall be kept at the cultivation site. Electronic copies of these documents are acceptable. Either format of maintained documents kept on site must be immediately presentable upon request.

Methods

The methods used to develop this SMP 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, general planning, and information gathered from the cannabis cultivator and/or landowner. The field component included mapping of all access roads, vehicle parking areas, Waters of the State, stream crossings, drainage features, cultivation sites, buildings, disturbed areas, and all other relevant site features within the project area and surrounding areas (as feasible). Cultivation areas, associated facilities, roads, and other developed and/or disturbed areas were assessed for discharges and related controllable water quality factors from the activities listed in the General Order. The field assessment also included an evaluation and determination of compliance with all applicable BPTC's per Section 2 of the General Order.

Property Description

The property assessed consists of one parcel totaling approximately 130 acres located approximately 3.5 miles northwest of Willow Creek, California, at elevations that range from approximately 1,800 to 2,700 feet above mean sea level. The property is located in Section 13, T7N-R4E, HB&M, Humboldt County. It is located on the Willow Creek, USGS 7.5' Quadrangle Map. Kirkham Creek and unnamed Class II and III tributaries of Kirkham Creek flow through the property. Kirkham Creek is a tributary to the Trinity River. Nineteen acres in the northwest corner of the property are located in the Campbell Creek drainage, however the property does not contain any watercourses that are tributary to Campbell Creek.

Project Description

Cannabis cultivation on the property currently consists of four separate cultivation areas that total approximately 17,648 ft² of cannabis cultivation as listed in Table 1. Pending approval from the county, cultivation areas are planned to be reconfigured which will result in all of the cultivation being located at Cultivation Areas A, B, and C, and removal of cultivation from Cultivation Area D. This reconfiguration will not require any grading and will result in all cultivation being located more than 200 feet from a watercourse. The cultivation areas are located within 157,600 ft² of disturbed areas located along ridgetops. This project being permitted by Humboldt County to cultivate cannabis. This project was previously enrolled in the North Coast Regional Water Quality Control Board Order No. R1-2015-0023 under WDID-1B16437CHUM and has since enrolled with State Water Resources Control Board as WDID-1_12CC417037. This project is being classified as Tier 2, Low Risk.

Table 1: Cultivation Site Parameters.

Cultivation Area	Land Disturbance Area (ft ²)	General Cultivation Area ¹ (ft ²)	Adjoining Hillslopes (% Grade)
A	23,600	3,000	5
B	27,100	6,000	30
C	24,200	6,648	15
D	82,700	2,000	5
Totals:	157,600	17,648	


Table 2: Project Permitting

Additional Required Permits Related to Project, Type, and Status	
SIUR	Not Required
LSAA/1600	Lake and Streambed Alteration Final Agreement from CDFW – Notification No. 1600-2017-0253-R1

Site Management Plan

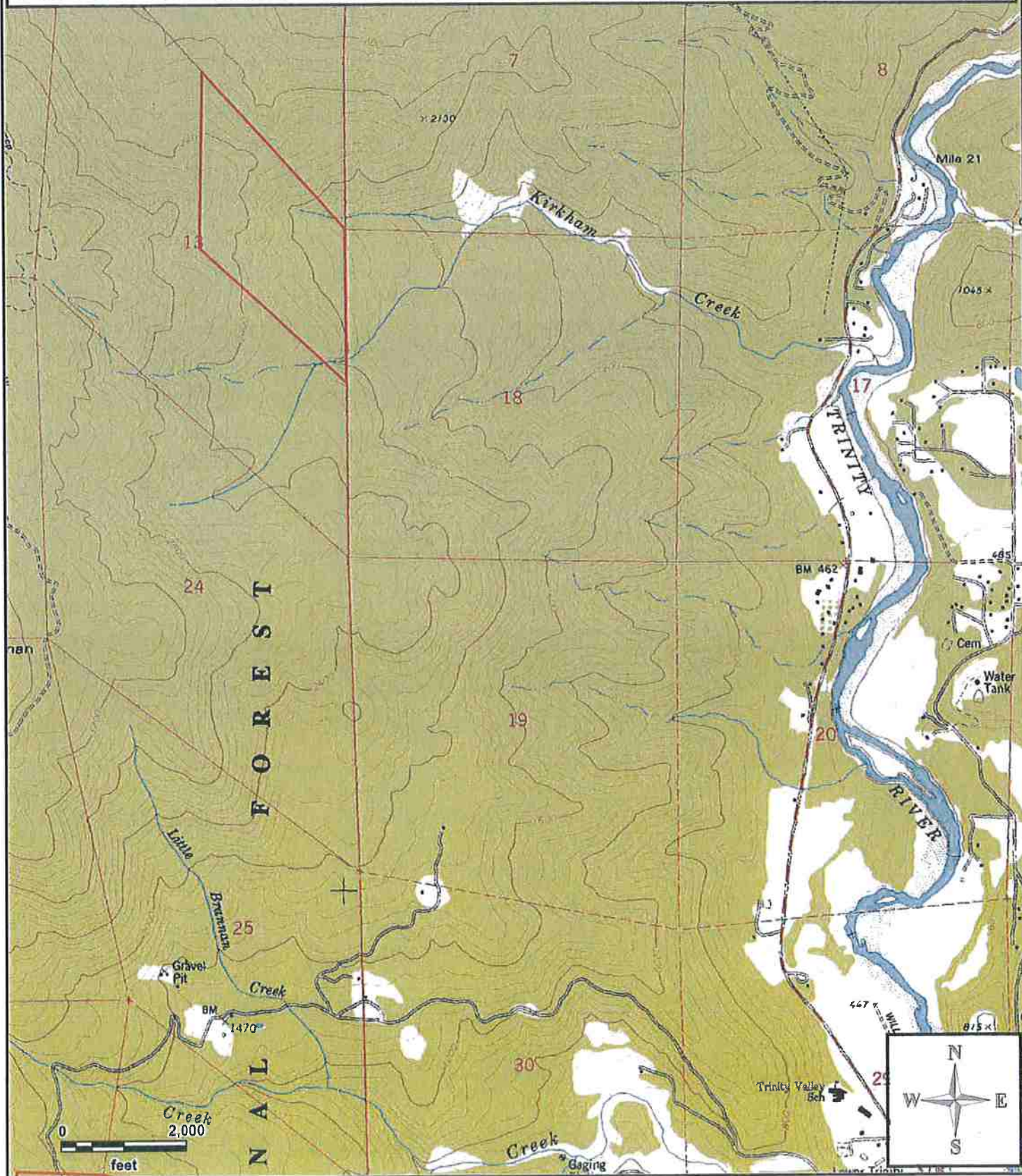
General Location Map WDID - 1_12CC417037



 Property Boundary

Located in Section 13, T7N-R4E, HB&M; Humboldt County, CA: Willow Creek 7.5' USGS Quad Map

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Baseline Assessment of Requirements Related to Water Diversions and Waste Discharge for Cannabis Cultivation

This project was previously enrolled in the North Coast Regional Water Quality Control Board Order No. 2015-0023. A Water Resource Protection Plan (WRPP) was prepared by Timberland Resource Consultants. Some mitigations prescribed in the WRPP have since been completed. A re-assessment of the project was conducted and will be used as the baseline assessment for the preparation of this document.

Land Development and Maintenance, Erosion Control, and Drainage Features

Project Compliance Y ☐/N ☒

Road classification description, surface, native material and erodibility

Roads are being classified as "permanent" (roads appurtenant to the project being used year-round), "legacy" (roads not appurtenant to the project receiving little to no use), and "trail" (being rarely used for occasional access to features on the property).

Roads within the project area appear to have a high native rock component and based on observations of surface erosion relative to current surface drainage break frequency, are being classified as having low erodibility. This classification will be utilized to determine surface/ditch-line drainage break frequency based on Table 19 of the Handbook for Forest Ranch and Rural Roads, 2014.

TABLE 19. Recommended maximum rolling dip and ditch relief culvert spacing, in feet, based on road gradient and soil erodibility ^{1,2}

Soil erodibility	Road gradient (%) and drainage structure spacing (feet)				
	0-3	4-6	7-9	10-12	>12
High to moderate	250	160	130	115	100
Low	400	300	250	200	160

Currently, all permanent roads on the property appear to have adequate rock surfacing, including road segments through watercourse crossings within riparian setbacks. Roads classified as permanent shall be kept appropriately surfaced (crushed rock, lignin treatments, pavement, or chip-seal) to increase durability during winter use.

Roads assessed by TRC were found to be in acceptable condition with regards to rock surfacing and surface drainage. The majority of permanent access roads and those shown as legacy roads, are out-sloped with gentle gradients and adequately drained to allow surface drainage. No wheel ruts were observed on the access roads on the date of the site visit. Sites 13 through 21 are rolling dips or lead out ditches that have become worn from normal summertime road use and require maintenance or minor reconstruction.

Cultivation Areas A, C, and D are located on hill slopes less than 30%. Cultivation Area B is located along a ridge that is estimated to have had natural slopes that ranged from 25% to 30% prior to construction. Natural slopes off of the ridgetop towards the east, were estimated to be in the range of 30% to 40% prior to construction. Disturbed areas on slopes in excess of 30% would normally warrant classifying the site as a moderate risk level. Cultivation Area B is located along a rocky ridgetop with a high content of angular rock. Aerial imagery shows that the developed cultivation area has been in its current configuration since prior to 2012. The cutbanks and fillslopes associated with this cultivation area appear very competent with little to no degradation, erosion, or sloughing since its construction. There is no visible evidence of instability such as cracking, slumping, and leaning or pistol butted trees. With the lack of indicators of instability, and the estimation of natural slopes just over the 30% threshold, we are classifying this site as low risk. This site will continue to be monitored throughout its enrollment. Should any of the cultivation areas begin to show signs of instability, risk level will be reevaluated and site specific treatments may be prescribed.

Past cultivation areas:

Cannabis cultivation previously took place at the small locations shown south and southeast of the house, under previous ownerships. It appears that these past cultivation areas have not been in use for several years. They were located on the surfaces of old skidtrails and along natural benches. These sites now consist of potting soil on the ground, and in grow bags or pots, leftover fencing materials. Grass and vegetation are returning to these areas naturally. Removal of the past cultivation areas does not require any grading. At past cultivation areas the cannabis cultivator shall remove any remaining pots, potting soil, or other cultivation related waste. Grass seed areas disturbed by removal of past cultivation areas. See "Past Cultivation Areas" in the Mitigation Report for site specific details.

Controllable sediment discharge sources (CSDS) means sites or locations, both existing and those created by proposed cannabis activities, within the project ownership that meet all the following conditions:

1. is discharging or has the potential to discharge sediment to waters of the state in violation of applicable water quality requirements or other provisions of these General WDRs.
2. was caused or affected by human activity, and
3. may feasibly and reasonably respond to prevention and minimization management measures.

No controllable sediment discharge sources (CSDS) were located on the property.

There is one unstable area shown on the site map. It is not located near any roads or developed cannabis cultivation areas. It was identified in the Water Resource Protection Plan that was prepared in 2016. The unstable area can be seen on aerial imagery dating back to 1988. On site observations and updated 2018 aerial imagery show that the unstable area is not expanding and is becoming more revegetated. No treatments or mitigation measures are proposed.

Cleanup, Restoration, and Mitigation:Project Compliance Y☒/N☐

No areas requiring cleanup, restoration, and mitigation were observed. Past cultivation areas discussed above and shown on the SMP Map do not require grading or restoration. These areas are addressed below under cultivation related waste.

Stream Crossing Installation and Maintenance:Project Compliance Y☒/N☐

There are eight existing watercourse crossings on this property. They are located at Sites 01 – 06, 08, and 09. With the exception of Site 08, all are existing permanent culverts located on permanent access roads. Site 08 is a dirt ford / pulled watercourse crossing over a legacy road that is not used by the cannabis cultivator. There is no crossing structure at the site and no erosion is taking place. Since 2016 this site has been evaluated three times by Timberland Resource Consultants and has remained unchanged. All of the watercourse crossings were either installed or evaluated and permitted under a valid Lake and Streambed Alteration Agreement issued by the California Dept. of Fish and Wildlife (#1600-2017-0253-R1). During assessments conducted for preparation of this Site Management Plan, all of the watercourse crossings appeared to be functioning adequately with no erosion. Other than required monitoring and routine maintenance at the culverts, no action is required at this time.

Soil Disposal and Spoils Management:Project Compliance Y☐/N☒

Currently, no spoils generated through development or maintenance of roads, driveways, earthen fill pads, or other cleared or filled areas are located on the property. Site 22 is a pile of cultivation related soil located near Cultivation Area A. It is in a stable, flat location that does not have access to a watercourse. It shall be covered with a tarp prior to periods of prolonged rainfall. Any future spoils generated as a result of any future construction projects that are to be stored on the property shall be done so in accordance with the BTPC.

Riparian and Wetland Protection and Management:Project Compliance Y☒/N☐

No disturbed areas were identified as being within the riparian areas. Other than at immediate watercourse crossings, there are no road segments within the riparian setbacks.

Table 4: Riparian and Wetland Protection and Management

Disturbed Area	Disturbance Area Distances and Riparian Setbacks ²				
	Class I [Setback: 100'] ²	Class II [Setback: 100']	Class III [Setback: 50']	Perennial Spring or Wetland [Setback: 50'] ²	Disturbed Area Within Setbacks [ft ²]
Cultivation Area A		>200'	>200'		0
Cultivation Area B		>200'	>200'		0
Cultivation Area C		>200'	>200'		0
Cultivation Area D		180'	55'		0
Total =					0

²This enrollment was previously enrolled in RWQCB Order No 2015-0023 and as such may retain reduced setbacks that were applicable under the previous Order.

Water Storage and Use:

Project Compliance Y ☐/N ☒

All water on the property is derived from a permitted groundwater well and a permitted surface water diversion (POD), located in an unnamed Class II tributary of Kirkham Creek. These sources meet and exceed the required water demands for both domestic and agricultural use. The well is used all year for irrigation and can be used for domestic water. Water use estimates are provided below. Metering devices to monitor water usage shall be used yearly starting in 2020 to record all water used for the irrigation of cannabis. Monthly water usage shall be recorded for annual reporting purposes. Water meter(s) and water supply infrastructure shall be designed/installed in a manner such that water usage for the irrigation of cannabis can be recorded separately from water used for domestic use. Additionally, if multiple diversions of surface water are used, infrastructure and metering device(s) shall be designed/installed in a manner that each source of surface water is recorded separately.

The well is located up on a ridge far from any watercourses. A solar panel powers the well pump for the filling of three nearby water storage tanks that total approximately 8,000 gallons. Water is gravity fed down to the cultivation areas and the developed area around the residence. Water tanks are located on stable, flat surfaces far from watercourses.

The surface diversion (POD) intake is situated in a Class II watercourse. The POD infrastructure is a concrete cylinder set in the watercourse channel per an approved Lake and Streambed Alteration Agreement with CDFW (1600-2017-0253-R1). It is plumbed to a single holding tank located downslope of the POD, outside of the riparian setback. The POD is used outside of the forbearance period for domestic use. During the agreed upon forbearance period, up to 200 gallons per day may be used for domestic use per the signed LSA Agreement. The well is also available for domestic water use.

Near the house there is a lined rain catchment pond that is approximately 55 feet wide and 100 feet long. At this point in time, it is used solely for recreation, dogs, and is available in case of fire.

Also shown nearby, is a shed that once contained a hydro electric generator and batteries that was used under the previous owners. Since then its use has discontinued. At that time, when in use it was plumbed to the mapped POD and the tail water drained into the pond.

A Lake and Streambed Alteration Agreement with the California Department of Fish and Wildlife, as well as an Initial Statement of Water Diversion are finalized. Any additional guidelines, treatments, or restrictions set forth under the finalized Lake and Stream Agreement shall be followed.

Table 5: Estimated Annual Water Use 2018

Source	Jan.	Feb.	Mar	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Well	0	0	0	10,000	30,000	40,000	50,000	50,000	40,000	10,000	0	0
Surface	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000

Cannabis cultivators should be advised that transition to the state General Order will require additional infrastructure to use bladders for water storage. Per Cannabis Cultivation Policy: Attachment A, Section 2, No. 88 & 89 for cannabis cultivators, bladders shall be safely contained within a secondary containment system with sufficient capacity to capture 110 percent of a bladders maximum volume in the event of bladder failure and if open to rainfall, and/or (whichever is larger) capable to accommodate precipitation and storm water inputs from 24 hours of a 25-year storm event. Secondary containment is recommended in the form of a dirt berm, containment pit, combination of both, or impermeable material with skeletal support.

Irrigation Runoff:

During visits to the property, no irrigation runoff, or evidence of such runoff, was observed at any of the cultivation areas.

Fertilizers, Pesticides, and Petroleum Products:

Project Compliance Y ☒/N ☐

Fertilizers, pesticides, and soil amendments are currently stored in structures on the property in a manner in which they cannot enter or be transported into surface waters. Secondary containment was not observed inside of sheds. Per Section 2, Term No. 106, all storage areas shall have appropriate secondary containment structures, as necessary, to protect water quality and prevent spillage, mixing, discharge, or seepage. Potting soils, compost, and other used soils are currently stored in structures, or outside near cultivation areas on flat, stable locations in a manner in which they will not enter or be transported into surface waters. Site 22 is a soil pile being stored for eventual reuse that was uncovered at the time of our assessment. It shall be kept under coverage of a tarp during periods of prolonged rainfall. Cultivation areas are currently maintained so as to

prevent nutrients from leaving the site during the growing season and post-harvest. Cultivation areas on this property are typically planter boxes in rows, sunken into the ground to prevent runoff.

Fertilizers and soil amendments shall be applied and used per the manufacturer's guidelines. The use of pesticide products shall be consistent with product labeling and all products on the property are to be stored in closed structures to ensure that they do not enter or are released into surface or ground waters.

Electricity on the southeast developed area, which includes the house and barn is provided by a large diesel generator and, at times a smaller backup generator. The large diesel generator is housed within a fully enclosed, 200 square foot, generator shed shown as Site 23 on the SMP Map. The shed is equipped with a cement floor and a cement perimeter foundation that serves as secondary containment for the contents of fuel inside of the generator. A backup generator is located on the back of the barn under cover of awnings. Fuel storage for the generator is two 1,000 gallon metal diesel fuel tanks. Each fuel tank is equipped with metal secondary containment tanks, and both are housed inside of a fully enclosed, 168 square foot shed, shown as Site 24 on the SMP Map. When not in use, small quantities of fuel and motor oil are stored within fuel canisters, or the original motor oil container, inside of the covered, secondary containment tanks within the generator and fuel storage sheds.

Each of the upper, western cultivation areas are powered by portable 6500 watt generators and are refueled by portable five gallon plastic gas cans. Any/all fuel canisters and motor oil containers shall be stored in secondary containment (e.g. plastic totes or sealed metal boxes) while being stored at the upper cultivation areas, outside of the storage sheds.

On site storage of petroleum products, or other fuels used for commercial activities may require registration as hazardous materials through the California Environmental Reporting System (CERS). Additionally, any waste oil generated from commercial activities (generators) is considered by the state hazardous waste and requires additional reporting. The cannabis cultivator is advised to contact local agencies to find out if such reporting is applicable to current operations.

Cultivation-Related Wastes:

Project Compliance Y ☒/N ☐

No 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, are stored in locations where they can enter or be blown into surface waters, or in a manner that could result in residues and pollutants within such materials to migrate or leach into surface water or groundwaters. To minimize risk of ensnaring wildlife, all used monofilament netting or fencing (e.g. plastic trellis, netting and fencing) that cannot be re-used shall be immediately collected, wound up, and secured with other refuse, and disposed of properly at a waste disposal facility.

Organic cultivation-related wastes are collected from the cultivation areas and either disposed of properly with general waste, or composted or burned. The cannabis cultivator shall ensure that the locations where organic wastes are stored, composted, or burned are minimized in number and are sited outside of watercourse riparian areas and away from any form of surface runoff.

Non-organic cultivation-related wastes are stored short term in lidded trashcans, garbage bags, and a covered dumpster near the residence and is disposed of regularly at a solid waste transfer station. The cannabis cultivator shall continue to gather and properly dispose of cultivation-related wastes and ensure that wastes are adequately contained from scavenging wildlife, and cannot be transported away from storage areas by wind or surface runoff.

Refuse and Domestic Waste:

Project Compliance Y ☐/N ☒

Garbage and refuse are stored on the property within lidded trash cans or a covered dumpster and is disposed of regularly at the nearest solid waste transfer station. The cannabis cultivator shall continue to gather and properly dispose of refuse and ensure that refuse is adequately contained from scavenging wildlife, and cannot be transported away from storage areas by wind or surface runoff.

Human waste is managed by a permitted septic system connected with the Ag Building / Barn and a functioning unpermitted septic system connected with the house. An additional unpermitted septic system is located up at the Cabin shown as Site 26 on the SMP Map. The two identified, unpermitted septic systems on the property are functioning, located far from surface waters, and are in planning stages to be brought up to code by the cannabis cultivator. It is the cannabis cultivator's responsibility to ensure that all waste water disposal is in compliance with the Humboldt County Department of Environmental Health and Human Services.

Annual Winterization Measures

Winterization measures consist of general cleanup and winter-preparation activities that both prepare for, and utilize, anticipated, local winter weather. In project areas that may become inaccessible during periods, or the entirety, of the winter, additional winterization procedures and precautions may be required due to the potential absence of winter monitoring.

Per the Order, to minimize the risk of ensnaring and strangling wildlife, cannabis cultivators shall not use synthetic (e.g., plastic or nylon) monofilament netting materials for erosion control for any cannabis cultivation activities.

- Any exposed soils resulting from winterization activities shall be seeded and straw mulched.
- To prevent discharge of sediment to waters of the state, areas of exposed, erodible soils in and around cultivation areas shall be seeded and straw mulched with weed free straw or woodchips as needed to prevent discharge of sediment to waters of the state.

- All existing culvert inlets, interiors, and outlets shall be cleared of any existing or potential obstructions to include; debris upstream of the culvert such as sediment, loose, moveable rocks, and raftable, small, woody debris.
- Damage or wear resulting from vehicular use to road surfaces (such as rutting or wheel tracks) and/or road surfacing (such as rock) that would impair road surface drainage or drainage features (such as outsloping, waterbars, rolling dips, etc.) shall be repaired prior to the Winter Period.
- All existing surface drainage features and sediment capture features shall be maintained if needed to ensure continued function through the Winter Period.
- All fertilizers and petroleum products will be stored in an area located outside of riparian setbacks, completely sealed, placed in a secondary containment (liquids), and stored in a manner that prevents contact with precipitation and surface runoff.
- Chemical toilets will be removed from the property until need resumes the following cultivation season, or at a minimum serviced and left unused during periods when not in use.
- Water storage tank lids shall be appropriately closed to prevent the access of wildlife.
- All refuse/trash shall be removed and disposed of appropriately.
- All inorganic material capable of being transported by wind or rain shall be secured and stored appropriately.

**STATEMENT OF CONTINGENT AND LIMITING CONDITIONS CONCERNING
THE PREPARATION AND USE OF REPORTS ADDRESSING GENERAL
WASTE DISCHARGE REQUIREMENTS UNDER ORDER WQ 2017-0023-DWQ**

Prepared by Timberland Resource Consultants

1. This document has been prepared for the property within APN 522-073-002, in Humboldt County, for enrollment in the General Waste Discharge Order WQ 2017-0023-DWQ.
2. Timberland Resource Consultants does not assume any liability for the use or misuse of the information in this document.
3. The information is based upon conditions apparent to Timberland Resource Consultants at the time inspection(s) were conducted. Changes due to land use activities or environmental factors occurring after inspection, have not been considered in this document.
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 document may differ from those made by others or from changes on the property occurring after inspections were 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 document are advised to contact Timberland Resource Consultants prior to such use.
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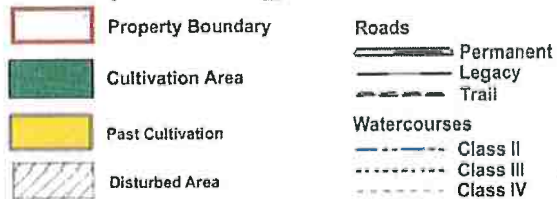


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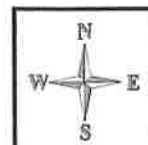
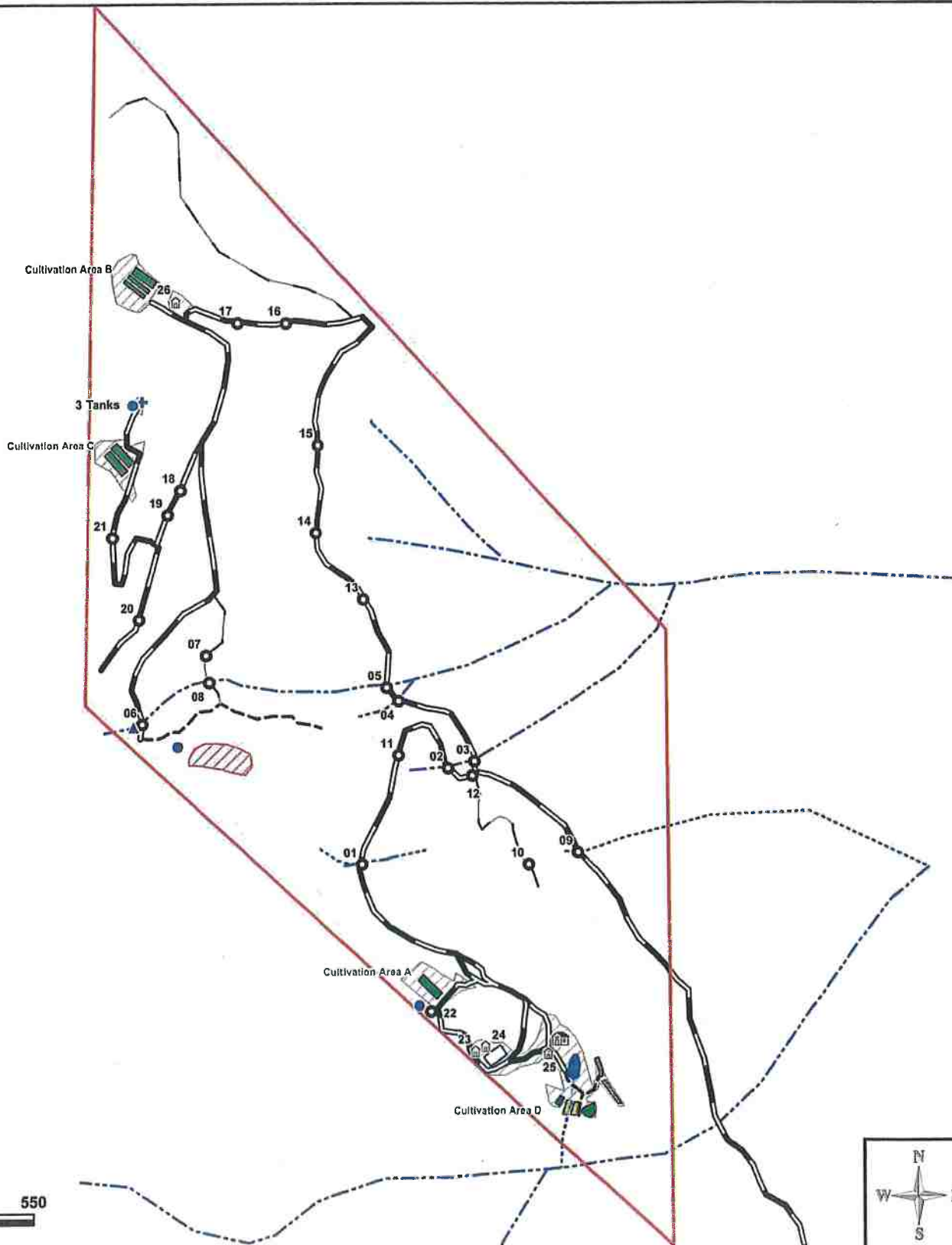
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Site Management Plan

Site Map WDID - 1_12CC417037



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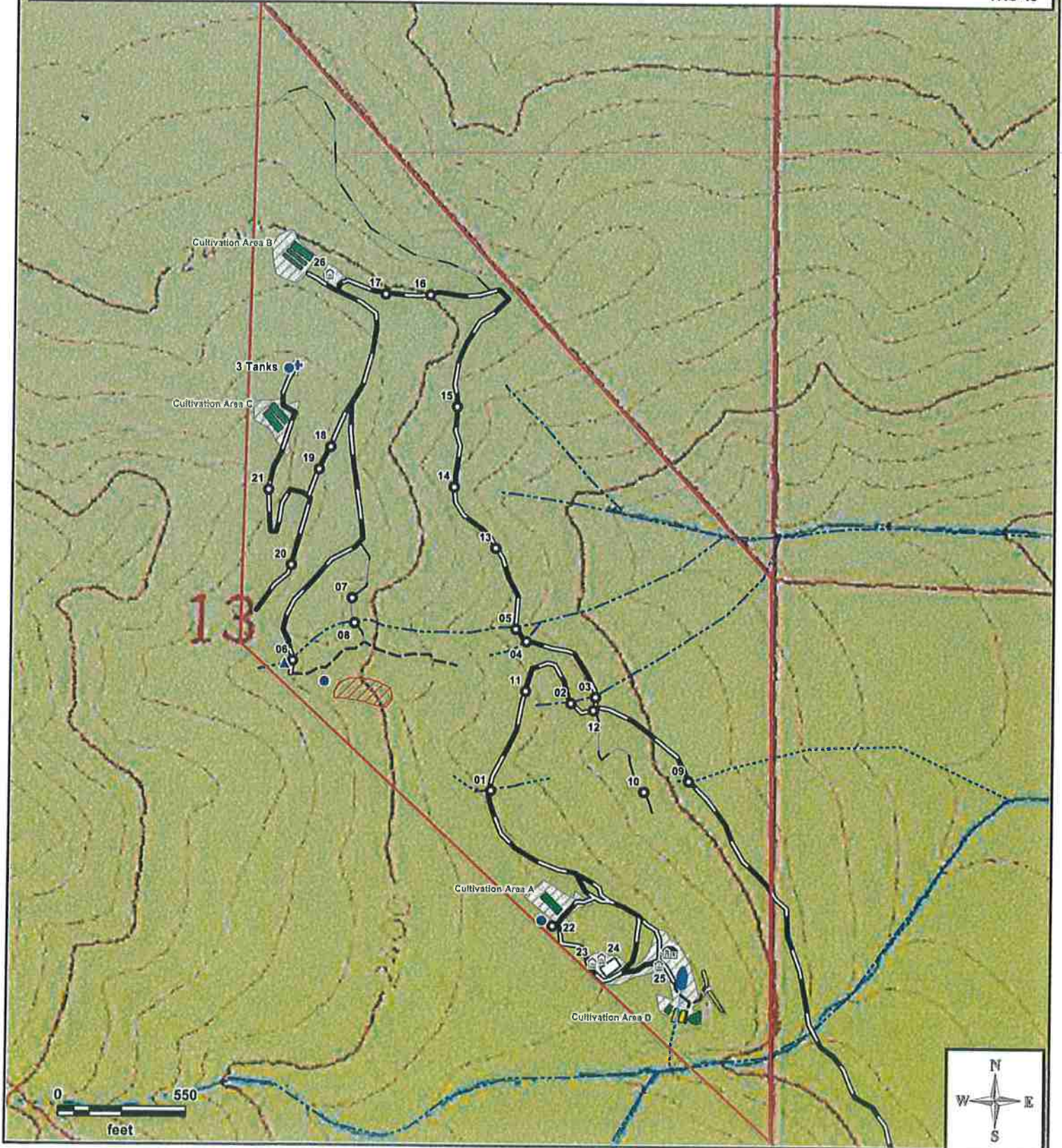
Site Management Plan

Site Map WDID - 1_12CC417037



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|-------------------|---------------------|---------------|--------------------|
| Property Boundary | Roads | Unstable Area | Pond |
| Cultivation Area | Permanent | Well | Tank |
| Past Cultivation | Legacy | Site | House |
| Disturbed Area | Trail | Structure | Barn / Ag Building |
| | Watercourses | | |
| | Class II | | |
| | Class III | | |
| | Class IV | | |

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Site Management Plan

Site Map WDID - 1_12CC417037

Property Boundary

Cultivation Area

Past Cultivation

Disturbed Area

Roads

Permanent

Legacy

Trail

Watercourses

Class II

Class III

Class IV

Unstable Area

Pond

Well

Tank

Site

House

Structure

Barn / Ag Building

Barn / Ag Building

Timberland
Resource
Consultants

TRC-49



0 550
feet





Treatment Implementation Schedule

Unique Point	Proposed Work Completion Date
1	-
2	-
3	-
4	-
5	-
6	Prior to 10/15/20
7	-
8	-
9	-
10	-
11	Prior to 10/15/19
12	Prior to 10/15/19
13	Annually prior to 10/15
14	Annually prior to 10/15
15	Annually prior to 10/15
16	Annually prior to 10/15
17	Annually prior to 10/15
18	Annually prior to 10/15
19	Annually prior to 10/15
20	Annually prior to 10/15
21	Annually prior to 10/15
22	Prior to 10/15/19
23	-
24	-
25	-
House and Cabin at Site 26	Prior to 10/15/21
Well	As required
POD	As required
Portable Fuel Cannisters	As soon as feasible, but no later than 10/15
Fertilizer Storage	As soon as feasible, but no later than 10/15
Past Cultivation Areas	Prior to 10/15/20



Timberland
Resource
Consultants

SMP - Mitigation Report

WDID# - 1_12CC417037

Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
1	-123.672214 40.983789	Permanent	-	X	-	-	
Current Condition: Existing 24" corrugated plastic culvert for a Class II watercourse crossing. Culvert is rock armored at the inlet and the outlet, is set to grade, and is the proper length to avoid erosion of the fill prism.						Prescribed Action: None. The site will be monitored throughout the year to ensure adequate drainage is maintained. The inlet and outlet will be inspected to ensure that the culvert remains open, functioning, and without a risk of becoming plugged. See attached BMP's: Winterization and Interim Treatments for Erosion Control, Roads and Crossings.	
Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
2	-123.67101 40.984816	Permanent	-	X	-	-	
Current Condition: Existing 24" corrugated plastic culvert for a Class II watercourse crossing. Culvert is rock armored at the inlet, set to grade, and is the proper length to avoid erosion of the fill prism.						Prescribed Action: None. The site will be monitored throughout the year to ensure adequate drainage is maintained. The inlet and outlet will be inspected to ensure that the culvert remains open, functioning, and without a risk of becoming plugged. See attached BMP's: Winterization and Interim Treatments for Erosion Control, Roads and Crossings.	
Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
3	-123.670633 40.98489	Permanent	-	X	-	-	
Current Condition: Existing 24" corrugated metal culvert for a Class II watercourse crossing. Culvert is rock armored at the inlet and outlet, set to grade, and is the proper length to avoid erosion of the fill prism.						Prescribed Action: None. The site will be monitored throughout the year to ensure adequate drainage is maintained. The inlet and outlet will be inspected to ensure that the culvert remains open, functioning, and without a risk of becoming plugged. See attached BMP's: Winterization and Interim Treatments for Erosion Control, Roads and Crossings.	
Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
4	-123.671712 40.985526	Permanent	-	X	-	-	
Current Condition: Existing 30" corrugated metal culvert for a Class II watercourse crossing. Culvert is rock armored at the inlet and outlet, set to grade, and is the proper length to avoid erosion of the fill prism.						Prescribed Action: None. The site will be monitored throughout the year to ensure adequate drainage is maintained. The inlet and outlet will be inspected to ensure that the culvert remains open, functioning, and without a risk of becoming plugged. See attached BMP's: Winterization and Interim Treatments for Erosion Control, Roads and Crossings.	
Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
5	-123.671883 40.98567	Seasonal	-	X		-	
Current Condition: Existing 36" corrugated metal culvert for a Class II watercourse crossing. Culvert is rock armored at the inlet and outlet, set to grade, and is the proper length to avoid erosion of the fill prism.						Prescribed Action: None. The site will be monitored throughout the year to ensure adequate drainage is maintained. The inlet and outlet will be inspected to ensure that the culvert remains open, functioning, and without a risk of becoming plugged. See attached BMP's: Winterization and Interim Treatments for Erosion Control, Roads and Crossings.	



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Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
6	-123.675322 40.985267	Seasonal	X	X	-	Prior to 10/15/20	
Current Condition: Existing 24" corrugated plastic culvert for a Class II watercourse crossing. Culvert is set to grade and is the proper length to avoid erosion of the fill prism. Culvert is not eroding but lacks rock armor at the inlet.						Prescribed Action: Hand place rock armor around the inlet. Monitor the site throughout the year to ensure adequate drainage is maintained. The inlet and outlet will be inspected to ensure that the culvert remains open, functioning, and without a risk of becoming plugged. See attached BMP's: Winterization and Interim Treatments for Erosion Control, Roads and Crossings.	
Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
7	-123.674419 40.986002	Legacy	-	X	-	-	
Current Condition: This is a point where a Legacy road crosses a rocky, topographical swale. There is no watercourse, surface drainage, or erosion at this site.						Prescribed Action: None. Monitor this site to ensure that conditions have not changed and to confirm no erosion sites have developed.	
Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
8	-123.674375 40.985714	Legacy	-	X	-	-	
Current Condition: This is a properly pulled crossing crossing of a Class II watercourse. It is located on an unused legacy road.						Prescribed Action: None. Monitor this site to ensure that conditions have not changed and to confirm no erosion sites have developed.	
Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
9	-123.669174 40.983928	Permanent	-	X	-	-	
Current Condition: Existing 30" corrugated metal culvert for a Class III watercourse crossing. Culvert is rock armored at the inlet and outlet, set to grade, and is the proper length to avoid erosion of the fill prism.						Prescribed Action: None. The site will be monitored throughout the year to ensure adequate drainage is maintained. The inlet and outlet will be inspected to ensure that the culvert remains open, functioning, and without a risk of becoming plugged. See attached BMP's: Winterization and Interim Treatments for Erosion Control, Roads and Crossings.	
Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
10	-123.669858 40.983799	Legacy	-	X	-	-	
Current Condition: Existing 15" ditch relief culvert.						Prescribed Action: None. Monitor this site throughout the winter to ensure that the ditch relief culvert is functioning and to confirm no erosion sites have developed.	
Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
11	-123.67171 40.984951	Permanent	X	X	-	Prior to 10/15/19	
Current Condition: Existing 18" ditch relief culvert. Minor vegetation and debris has accumulated at the inlet and the outlet.						Prescribed Action: Clean out the inlet and the outlet of the ditch relief culvert. Monitor this site throughout the winter to ensure that the ditch relief culvert is functioning and to confirm no erosion sites have developed.	



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Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
12	-123.670663 40.984737	Permanent	X	X	-	Prior to 10/15/19	
Current Condition: Existing 12" ditch relief culvert. Minor vegetation and debris has accumulated at the inlet and the outlet.						Prescribed Action: Clean out the inlet and the outlet of the ditch relief culvert. Monitor this site throughout the winter to ensure that the ditch relief culvert is functioning and to confirm no erosion sites have developed.	
Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
13	-123.67221 40.986609	Permanent	X	X	-	Annually prior to 10/15	
Current Condition: Existing rolling dip becoming worn from normal, seasonal vehicle use.						Prescribed Action: Repair and maintain the rolling dip per the specifications in the attached BMPS: Rocked Rolling Dip Design and Placement.	
Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
14	-123.672879 40.987317	Permanent	X	X	-	Annually prior to 10/15	
Current Condition: Existing rolling dip becoming worn from normal, seasonal vehicle use.						Prescribed Action: Repair and maintain the rolling dip per the specifications in the attached BMPS: Rocked Rolling Dip Design and Placement.	
Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
15	-123.672857 40.988254	Permanent	X	X	-	Annually prior to 10/15	
Current Condition: Existing rolling dip becoming worn from normal, seasonal vehicle use.						Prescribed Action: Repair and maintain the rolling dip per the specifications in the attached BMPS: Rocked Rolling Dip Design and Placement.	
Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
16	-123.673309 40.989554	Permanent	X	X	-	Annually prior to 10/15	
Current Condition: Existing rolling dip becoming worn from normal, seasonal vehicle use.						Prescribed Action: Repair and maintain the rolling dip per the specifications in the attached BMPS: Rocked Rolling Dip Design and Placement.	
Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
17	-123.673996 40.989555	Permanent	X	X	-	Annually prior to 10/15	
Current Condition: Existing rolling dip becoming worn from normal, seasonal vehicle use.						Prescribed Action: Repair and maintain the rolling dip per the specifications in the attached BMPS: Rocked Rolling Dip Design and Placement.	
Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
18	-123.674794 40.987765	Permanent	X	X	-	Annually prior to 10/15	
Current Condition: Existing rolling dip becoming worn from normal, seasonal vehicle use.						Prescribed Action: Repair and maintain the rolling dip per the specifications in the attached BMPS: Rocked Rolling Dip Design and Placement.	



Timberland
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Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
19	-123.67497 40.987501	Permanent	X	X	-	Annually prior to 10/15	
Current Condition: Existing rolling dip becoming worn from normal, seasonal vehicle use.						Prescribed Action: Repair and maintain the rolling dip per the specifications in the attached BMPS: Rocked Rolling Dip Design and Placement.	
Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
20	-123.675373 40.986379	Permanent	X	X	-	Annually prior to 10/15	
Current Condition: Existing rolling dip becoming worn from normal, seasonal vehicle use.						Prescribed Action: Repair and maintain the rolling dip per the specifications in the attached BMPS: Rocked Rolling Dip Design and Placement.	
Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
21	-123.67575 40.987256	Permanent	X	X	-	Annually prior to 10/15	
Current Condition: Existing rolling dip becoming worn from normal, seasonal vehicle use.						Prescribed Action: Repair and maintain the rolling dip per the specifications in the attached BMPS: Rocked Rolling Dip Design and Placement.	
Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
22	-123.671232 40.982229	-	X	X	-	Prior to 10/15/19	
Current Condition: Bulk pile of cultivation soil.						Prescribed Action: All potting soil or soil amendments, when not in use, shall be placed and stored with covers, when needed to protect from rainfall and erosion, to prevent discharge to waters of the state, and to minimize leaching of waste constituents into groundwater.	
Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
23	-123.670599 40.981815	-	-	X	-	-	
Current Condition: Fully enclosed diesel generator shed with built-in secondary containment, on a concrete slab with concrete perimeter foundation.						Prescribed Action: None.	
Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
24	-123.670458 40.981868	-	-	X	-	-	
Current Condition: Fully enclosed diesel fuel storage shed containing two, 1,000 gallon fuel tanks, each equipped with its own secondary containment.						Prescribed Action: None.	
Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
25	-123.669571 40.981795	-	-	X	-	-	
Current Condition: Hydro-electric, battery storage shed. Not in use.						Prescribed Action: Continue to keep stored batteries in the shed. Prior to any reconnection / or reuse of this hydro-electric system, the cannabis cultivator shall acquire the proper permits from the CDFW and / or the State Waterboard.	



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Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
House and Cabin at Site 26	-123.674865 40.989782	-	X	X	-	Prior to 10/15/21	
Current Condition: The functioning septic systems at the House and the Cabin are in the planning stages of becoming permitted.						Prescribed Action: Ensure that all waste water disposal is in compliance with the Humboldt County Department of Environmental Health and Human Services.	
Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
Well	-123.675334 40.988705	-	X	X	-	As required	
Current Condition: Well						Prescribed Action: Prior to the 2020 growing season, install water meters to record all water usage for the irrigation of cannabis and domestic use. Monthly water usage shall be recorded for annual reporting purposes. Also, water storage tank lids shall be kept closed to prevent the access of wildlife and water conservation measures shall be implemented (e.g. drip line irrigation, morning or evening watering, and mulch or cover cropping of cultivated top soils, etc.).	
Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
POD	-123.67544 40.985224	-	X	X	-	As required	
Current Condition: Approved Point of Diversion in a Class II watercourse.						Prescribed Action: Prior to the 2020 growing season, install water meters to record all water usage for the irrigation of cannabis and domestic use. Monthly water usage shall be recorded for annual reporting purposes. Also, water storage tank lids shall be kept closed to prevent the access of wildlife and water conservation measures shall be implemented (e.g. drip line irrigation, morning or evening watering, and mulch or cover cropping of cultivated top soils, etc.).	
Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
Portable Fuel Cannisters	N/A	-	X	-	-	As soon as feasible, but no later than 10/15	
Current Condition: All liquid petroleum products (e.g. any size container of any petroleum product) requires secondary containment while not in use and cover from precipitation during the wet season.						Prescribed Action: All liquid petroleum products and their containers shall be stored in secondary containment (e.g. plastic totes, sealed metal boxes, or within the enclosed generator shed) while not in use, wherever these materials are used. Adequate quantities of absorbent materials shall be stored at locations where these types of materials are used and stored. Should a spill occur, absorbent materials will be applied immediately and allowed to absorb as much material as possible. Following treatment, absorbent materials as well as any contaminated soil will be removed and disposed of appropriately.	



Timberland
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Consultants

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Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
Fertilizer Storage	N/A	-	X	-	-	As soon as feasible, but no later than 10/15	
Current Condition: Fertilizers and pesticides are stored in the Barn / Ag Building outside of riparian setbacks. Secondary containment was not observed inside of sheds.						Prescribed Action: All fertilizer and pesticide storage areas shall have appropriate secondary containment structures, as necessary, to protect water quality and prevent spillage, mixing, discharge, or seepage. See Order WQ 2017-0023-DWQ, Attachment A, Section 2 - Requirements Related To Water Diversions And Waste Discharge For Cannabis Cultivation, Term No. 106.	
Unique Point	Lat-Long NAD 83	Road Type	Mitigation Planned	Monitor	1600	Treatment Priority	Date Completed
Past Cultivation Areas	N/A	-	X	X	-	Prior to 10/15/20	
Current Condition: Mapped past cultivation areas that are no longer used that contain grow bags, fencing, used soil, and other cultivation waste.						Prescribed Action: Remove any remaining fencing, pots, or other cultivation-related wastes and materials from these areas. Seed and mulch areas of bare soil with native grass seed and weed free straw(or woodchips). If cultivation soil is not re-used, contour the cultivation-related used soils into the ground outside of any riparian buffer areas, and apply seed and mulch.	

BMP: Winterization and Interim Treatments for Erosion Control

• **Roads**

- Existing or newly installed road surface drainage structures such as water bars, rolling dips, ditch relief culverts, and intentionally in/out-sloped segments of road shall be maintained to ensure continued function of capturing and draining surface runoff.
- Hand tool kick-outs (lead out ditch) for existing wheel rut, surface run-off confinement.
- Temporary waterbar/cross-wattles installed on road/trail sections of concentrating surface runoff.
- Clean existing ditch relief culvert inlets, outlets, and contributing ditch lines of current and potential blockage debris by hand.
- Hand place energy dissipating rock/small woody debris at ditch relief culvert outlets where erosion is occurring.
- Wattles/straw bales placed at road runoff delivery sites.
- Touch-up with hand tools of existing surface drainage structures (kick-outs, rolling dips, and waterbars).
- Seed and straw un-used, or to be abandoned, road surfaces where erosion is occurring.
- Frequent use of un-surfaced roads should be avoided, particularly when road surfaces are soft/saturated.

• **Crossings**

- Clean inlets, outlets, and channels above of current and potential blockage debris by hand.
- Hand place energy dissipating rock/small woody debris at ditch relief culvert outlets.
- Hand placement of rock armor around culvert inlets.
- Install staked wattles along the outboard road edge of out-sloped watercourse crossings where direct delivery of road surface runoff is occurring.
- Hand placement of rock on crossing fill faces where erosion is/may occur as a result of poor crossing construction.

• **Cultivation Areas**

- Use hand tools to capture cultivation related soils that are not contained (soil from post-harvest plant removal, soil/planter removal, general spillage).
- Treat beds, pots, new soil storage piles, spent soil piles, and soil disposal piles with cover crops for soil stability and potentially nitrogen fixing/soil amendment.
- Bagged potting soil should be covered.
- Install staked wattles or an earthen berm around cultivation soils piles prior to the winter period, annually.
- Any soil amendment, fertilizer, herbicide, or pesticide that is not 100% sealed should be stored under cover.
- Cultivation sites with poor or concentrating drainage can have wattles or bales installed prior to winter to help prevent sediment and nutrients from leaving the site.
- Plastic netting shall be disposed of or stored where it is inaccessible to wildlife.
- Tarps/dep covers shall be stored so they cannot be blown away.
- General waste from growing season gathered up and disposed of.
- Exposed soil surfaces in the cultivation area, as well as graded fill slopes should be seeded, strawed, mulched, jute netted as needed.

• **General Areas**

- Remove all refuse prior to leaving property for the season.
- Back fill pit toilets to be abandoned.

BMP: General Recommendations

- **Fertilizers, soil amendments, and pesticides**
 - Fertilizer, soil amendments, and pesticide use is to be recorded in such a manner that cumulative annual totals are recorded for annual reporting.
 - Store in-use fertilizers in a securable storage container, such as a tote or deck box, adjacent to the mixing tanks.
- **Petroleum products and hazardous materials**
 - Utilize spill trays/containment structures and cover over the containment when using, fueling, changing oil on portable generators or petroleum powered water pumps to prevent the potential for leeching, seepage or spillage of petroleum products.
 - It is recommended that all petroleum products and other chemicals are registered with the California Environmental Reporting System (CERS) to satisfy future licensing requirements.
- **Water storage and Use**
 - Water use shall be designed and metered such that water used for the irrigation of cannabis will be recorded separately from domestic use. Water use for the irrigation of cannabis is to be recorded monthly for annual reporting.
 - Ensure lids are secured on all water storage tanks to prevent wildlife from becoming entrapped within the tank.
 - Install float valves, or implement another equivalent system, on all applicable water storage and transfer tanks to prevent unnecessary water diversion and the overflowing of water tanks.

BMP: General Operations BMPs

- If operations require moving of equipment across a flowing stream, such operations shall be conducted without causing a prolonged visible increase in stream turbidity. For repeated crossings, the operator shall install a bridge, culvert, or rock-lined crossing.
- During construction in flowing water, which can transport sediment downstream, the flow shall be diverted around the work area by pipe, pumping, temporary diversion channel or other suitable means. When any dam or artificial obstruction is being constructed, maintained, or placed in operation, sufficient water shall at all times be allowed to pass downstream to maintain fish life below the dam. Equipment may be operated in the channel of flowing live streams only as necessary to construct the described construction.
- Disturbance or removal of vegetation shall not exceed the minimum necessary to complete operations. The disturbed portion of any stream channel shall be restored to as near their original condition as possible. Restoration shall include the mulching of stripped or exposed dirt areas at crossing sites prior to the end of the work period.
- Structures and associated materials not designed to withstand high seasonal flow shall be removed to areas above the high-water mark before such flows occur.
- No debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete washing, oil or petroleum products, or other organic or earthen material from any logging, construction, or associated activity of whatever nature shall be allowed to enter into or be placed where it may be washed by rainfall or runoff into waters of the State. When operations are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high-water mark of any stream.

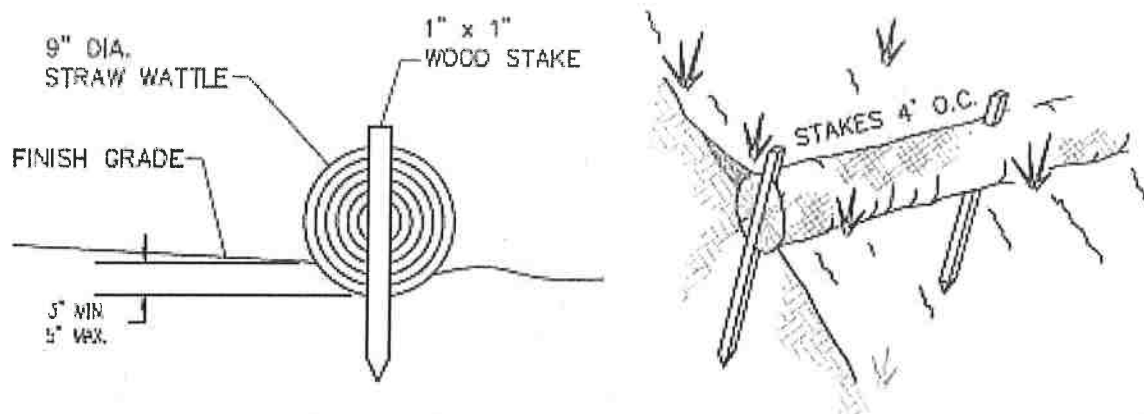
BMP: General Erosion Control

- Timing for soil stabilization measures within the 100 feet of a watercourse or lake: For areas disturbed from May 1 through October 15, treatment shall be completed prior to the start of any rain that causes overland flow across or along the disturbed surface. For areas disturbed from October 16 through April 30, treatment shall be completed prior to any day for which a chance of rain of 30 percent or greater is forecast by the National Weather Service or within 10 days, whichever is earlier.
- Within 100 feet of a watercourse or lake, the traveled surface of logging roads shall be treated to prevent waterborne transport of sediment and concentration of runoff that results from operations. Treatment may consist of, but not limited to, rocking, out sloping, rolling dips, cross drains, water bars, slope stabilization measures, or other practices appropriate to site-specific conditions.
- The treatment for other disturbed areas within 100 feet of a watercourse or lake, including: (A) areas exceeding 100 contiguous square feet where operations have exposed bare soil, (B) approaches to road watercourse crossings out to 100 feet or the nearest drainage facility, whichever is farthest, (C) road cut banks and fills, and (D) any other area of disturbed soil that threatens to discharge sediment into waters in amounts deleterious to the quality and beneficial uses of water, shall be grass seeded and mulched with straw or fine slash. Grass seed shall be applied at a rate exceeding 100 pounds per acre. Straw mulch shall be applied in amounts sufficient to provide at least 2- 4-inch depth of straw with minimum 90% coverage. Slash may be substituted for straw mulch provided the depth, texture, and ground contact are equivalent to at least 2 – 4 inches of straw mulch. Any treated area that has been subject to reuse or has less than 90% surface cover shall be treated again prior to the end of operations.
- Within 100 feet of a watercourse or lake, where the undisturbed natural ground cover cannot effectively protect beneficial uses of water from operations, the ground shall be treated with slope stabilization measures described in #3 above per timing described in #1 above.
- Side cast or fill material extending more than 20 feet in slope distance from the outside edge of a landing which has access to a watercourse or lake shall be treated with slope stabilization measures described in #3 above. Timing shall occur per #1 above unless outside 100 feet of a watercourse or lake, in which completion date is October 15.
- All roads shall have drainage and/or drainage collection and storage facilities installed as soon as practical following operations and prior to either (1) the start of any rain which causes overland flow across or along the disturbed surface within 100 feet of a watercourse or lake protection, or (2) any day with a National Weather Service forecast of a chance of rain of 30 percent or more, a flash flood warning, or a flash flood watch.

BMP: General Erosion Control (Cont.)

- 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: General Erosion Control (Cont.)

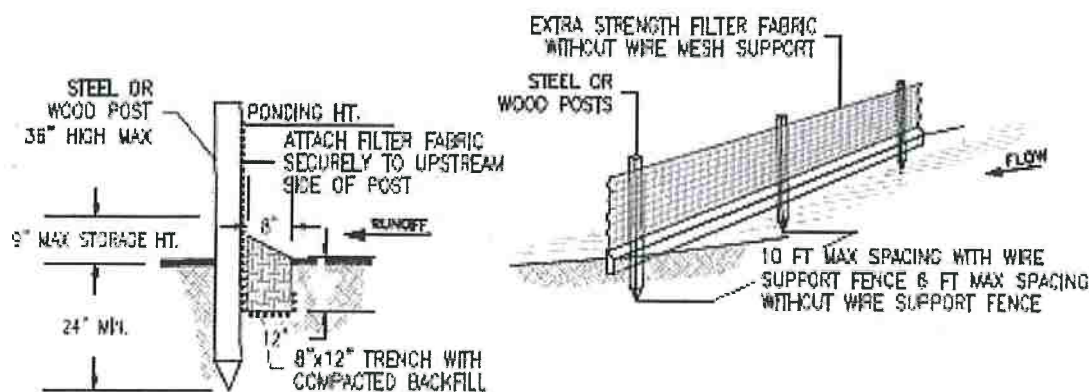


STRAW WATTLE NOTES:

1. STRAW WATTLES 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.
2. STRAW ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 3"-5" DEEP. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND THE ROLL.

STRAW WATTLE INSTALLATION DETAIL

NTS



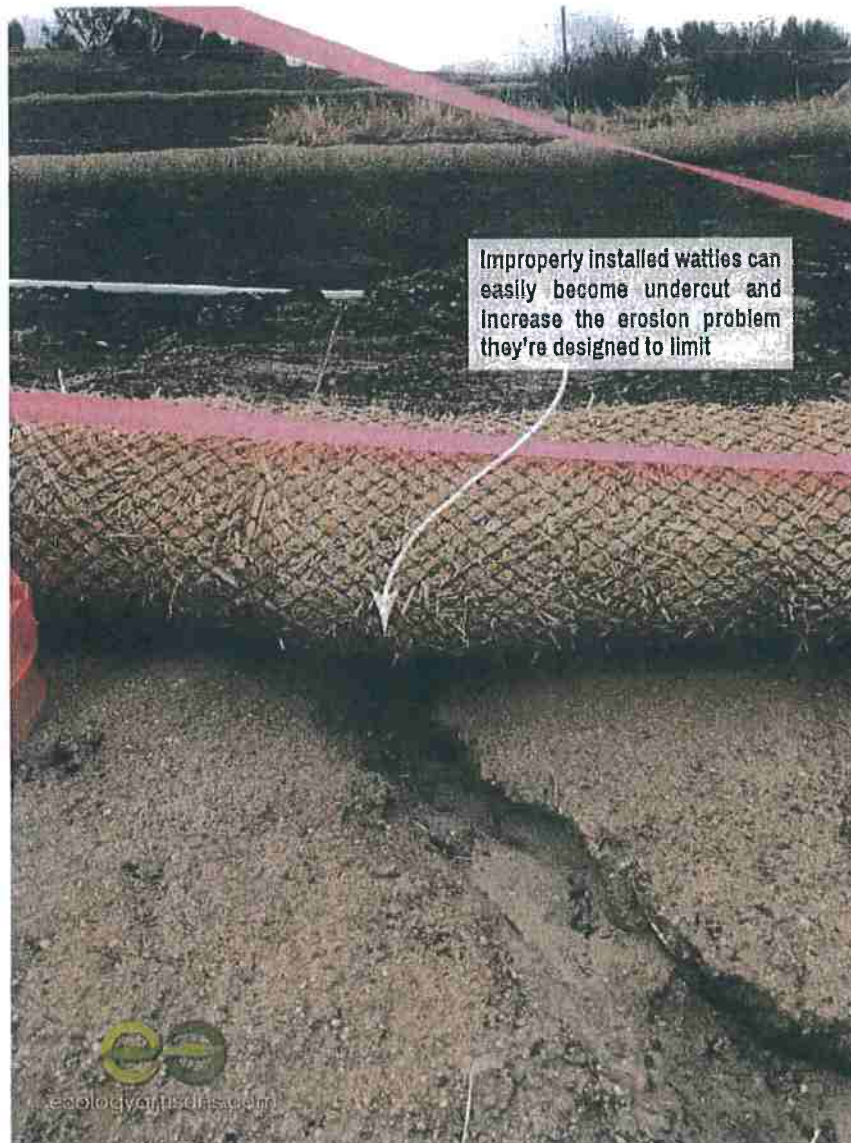
SILT FENCE NOTES:

1. THE CONTRACTOR SHALL INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT
2. CONTRACTOR SHALL REMOVE SEDIMENT AS NECESSARY. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND IN AN AREA THAT CAN BE PERMANENTLY STABILIZED.
3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.

SILT FENCE DETAILS

NTS

BMP: General Erosion Control (Cont.)

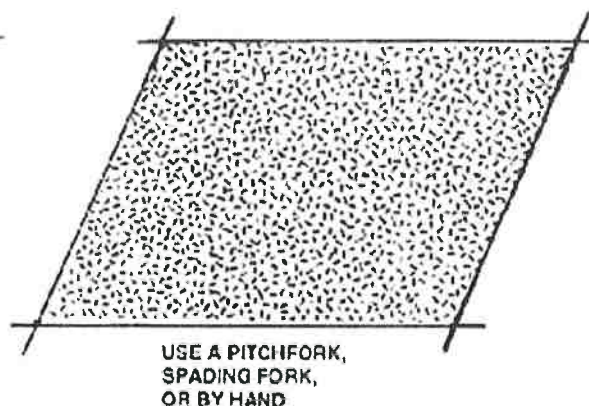
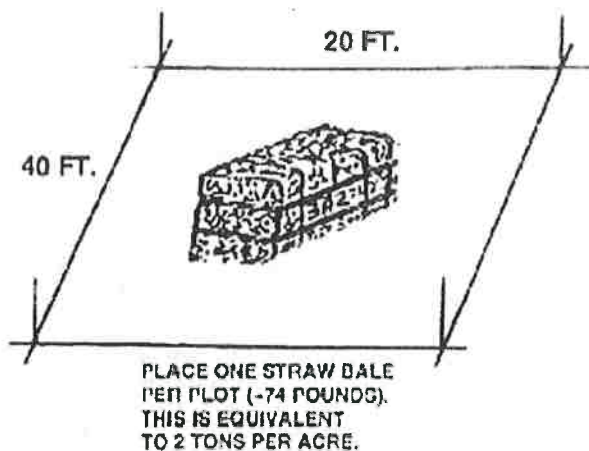


BMP: General Erosion Control (Cont.)

SPREAD THE STRAW

MARK OFF 800 SQ FT. PLOTS

SPREAD EVENLY

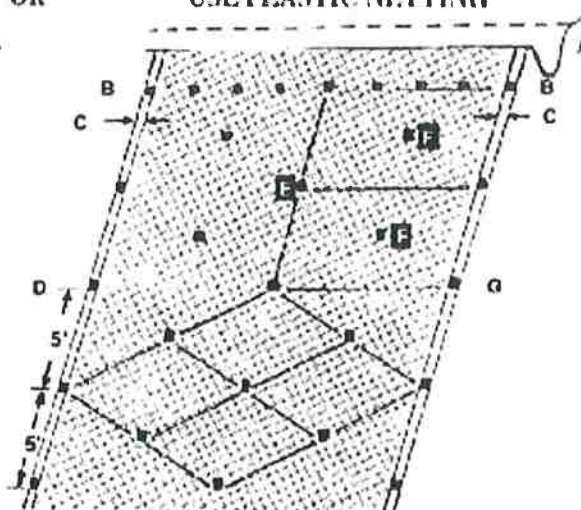
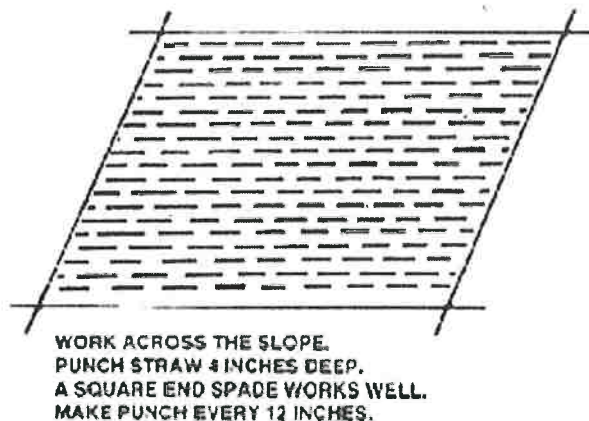


ANCHOR THE STRAW

CRIMP BY HAND

OR

USE PLASTIC NETTING

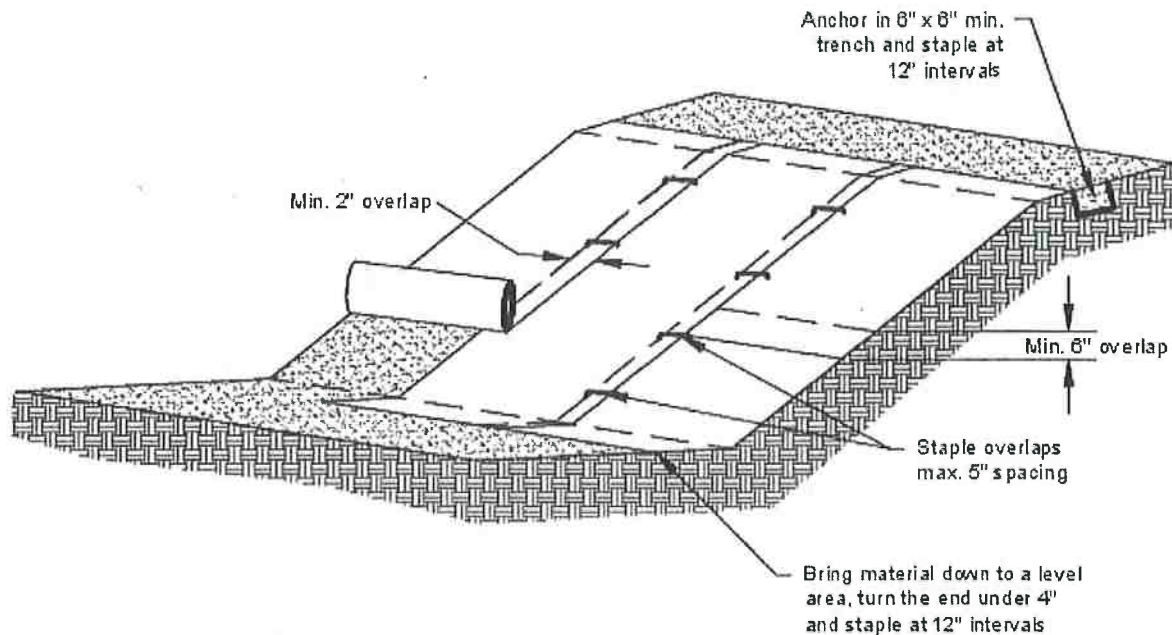


- A. LAY BIRD CONTROL NETTING OR SIMILAR MATTING IN STRIPS DOWN THE SLOPE OVER THE STRAW. BURY UPPER END IN 6-8 INCH DEEP AND WIDE TRENCH.. MOST NETTING COMES IN 14 TO 17 FT. WIDE ROLLS.
- B. SECURE THE UPPER END WITH STAKES EVERY 2 FEET.
- C. OVERLAP SEAMS ON EACH SIDE 4-5 INCHES.
- D. SECURE SEAMS WITH STAKES EVERY 5 FEET.
- E. STAKE DOWN THE CENTER EVERY 5 FEET.

- F. STAKE MIDDLES TO CREATE DIAMOND PATTERN THAT PROVIDES STAKES SPACED 4-5 FEET APART.
- G. USE POINTED 1X2 INCH STAKES 8 TO 9 INCHES LONG. LEAVE 1 TO 2 INCH TOP ABOVE NETTING, OR USE "U" SHAPED METAL PINS AT LEAST 9 INCHES LONG.

NOTE: WHEN JOINING TWO STRIPS, OVERLAP UPPER STRIP 3 FEET OVER LOWER STRIP AND SECURE WITH STAKES EVERY 2 FEET LIKE IN "B" ABOVE

BMP: General Erosion Control (Cont.)



Notes:

1. Slope surface shall be smooth before placement for proper soil contact.
2. Stapling pattern as per manufacturer's recommendations.
3. Do not stretch blankets/matting tight - allow the rolls to mold to any irregularities.
4. For slopes less than 3H:1V, rolls may be placed in horizontal strips.
5. If there is a berm at the top of the slope, anchor upslope of the berm.
6. Lime, fertilize, and seed before installation. Planting of shrubs, trees, etc. should occur after installation.

NOT TO SCALE



DEPARTMENT OF
ECOLOGY
State of Washington

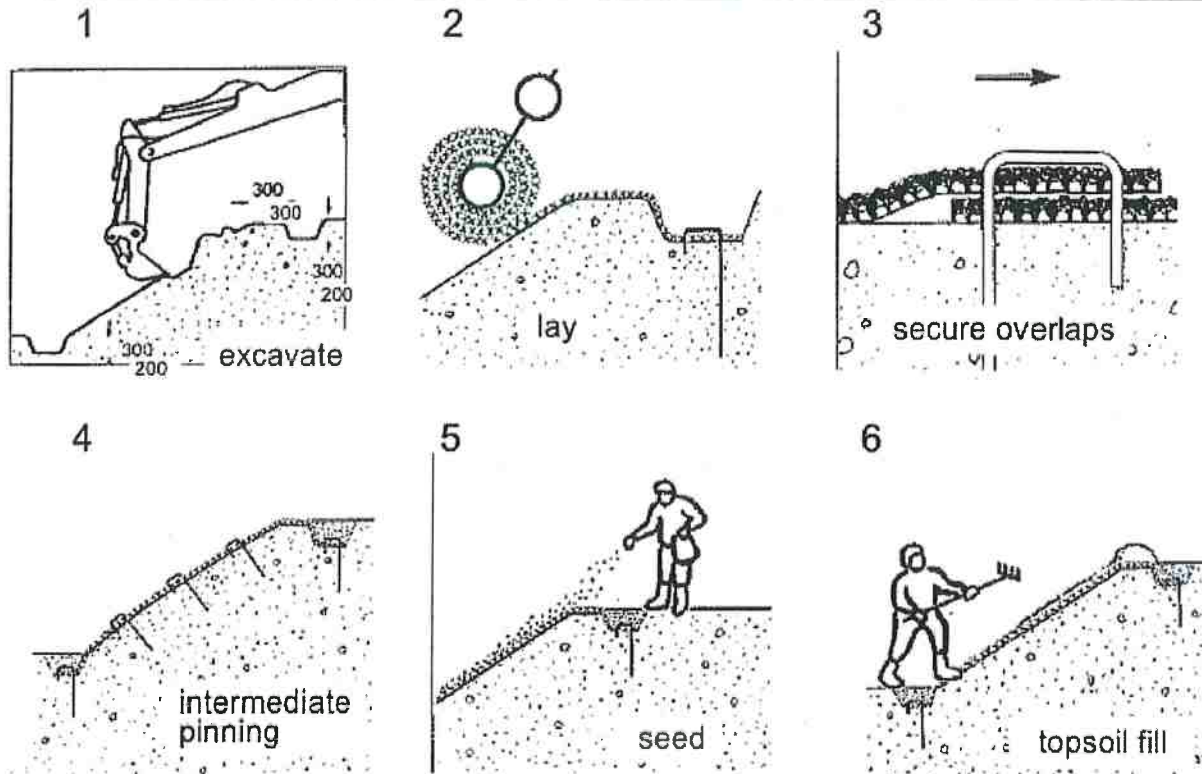
Slope Installation

Revised June 2016

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BMP: General Erosion Control (Cont.)

Installation of a geosynthetics mat - Enkamat



BMP: General Erosion Control (Cont.)

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

HANDBOOK FOR FOREST, RANCH AND RURAL ROADS

BMP: Rolling Dip Design and Placement

- Rolling dips are drainage structures designed to force surface water to be drained from the road surface.
- The road shall dip into, and rise out of, the rolling dip to eliminate the potential of road surface runoff to run further down road way.
- The rolling dip shall be constructed with clean native materials or rock surfaced where specified.
- The rolling dips outlet may be armored to resist down-cutting and erosion of the outboard road fill.
- Do not discharge rolling dips into any areas that show signs of instability or active landsliding.
- If the rolling dip is designed to divert both road surface and ditch runoff, block the down-road ditch with compacted fill in order to force all ditch flows through the trough (low point) of the rolling dip.

BMP: Rocked Rolling Dip Design and Placement

- Rocked rolling dips are drainage structures designed to carry known sources of surface water across road ways or from known persistently wet segments of road such as swales without defined watercourses or road segments with heavy bank/road seepage.
- The road shall dip into, and rise out of, the rocked rolling dip to minimize diversion potential.
- The rocked rolling dip shall be constructed with clean rock that is large enough to remain in place during peak flows. Rock size shall vary relative to the anticipated flow through the dip with larger rock used in location where greater flow is anticipated.
- The rocked rolling dips inlet and outlet shall be armored to resist down-cutting and erosion.
- The entire width of the rocked rolling dip shall be rock armored to a minimum of 5-feet from the centerline of the dipped portion of the rolling dip.
- If a keyway is necessary, the rocked rolling dip keyway at the base of the dip shall be of sufficient size, depth and length to support materials used in the rocked rolling dip construction back up to the road crossing interface.
- Do not discharge rolling dips into any areas that show signs of instability or active landsliding.
- If the rolling dip is designed to divert both road surface and ditch runoff, block the down-road ditch with compacted fill.
- The rolling dip should be designed as a broad feature ranging from 10-100 feet long so that it is drivable by most types of vehicular traffic and not significantly inhibit traffic and road use.

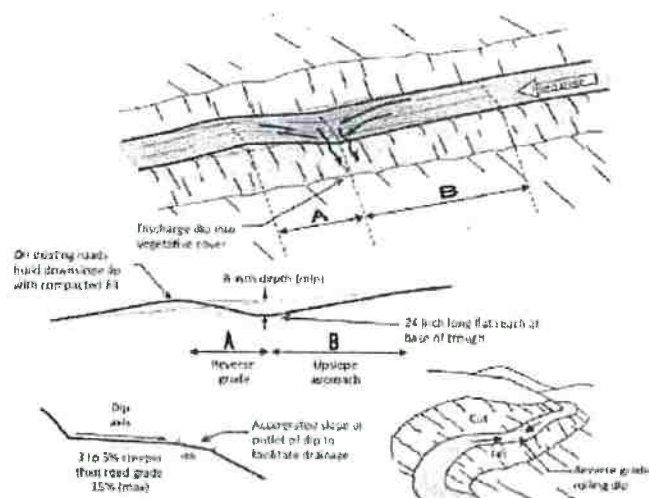
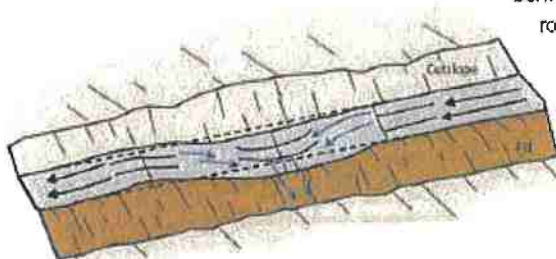


FIGURE 34. A classic Type I rolling dip, where the excavated up-road approach (B) to the rolling dip is several percent steeper than the approaching road and extends for 60 to 80 feet to the dip axis. The lower side of the structure reverses grade (A) over approximately 15 feet or more, and then falls 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).

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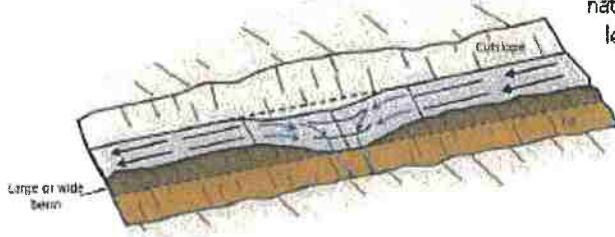
BMP: Rolling Dip Design and Placement (Types)

Type 1 Rolling Dip (Standard)



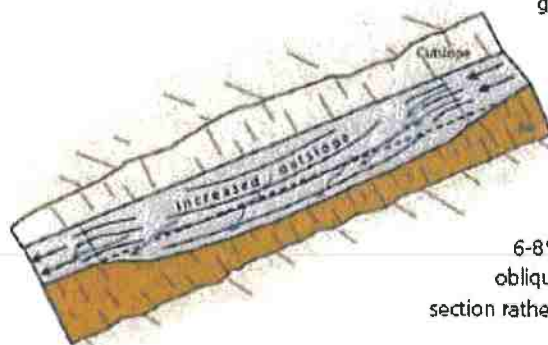
Type 1 rolling dips are used where road grades are less than about 12-14% and road runoff is not confined by a large through cut or berm. The axis of the dip should be perpendicular to the road alignment and sloped at 3-4% across the road tread. Steep roads will have longer and more abrupt dip dimensions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

BMP: Rolling Dip Design and Placement

FIGURE 33A.

Rolling dip constructed on a rock surfaced rural road. The rolling dip represents a change-in-grade along the road alignment and acts to discharge water that has collected on, or is flowing down, the road surface. This road was recently converted from a high maintenance, insloped, ditched road to a low maintenance, outsloped road with rolling dips.

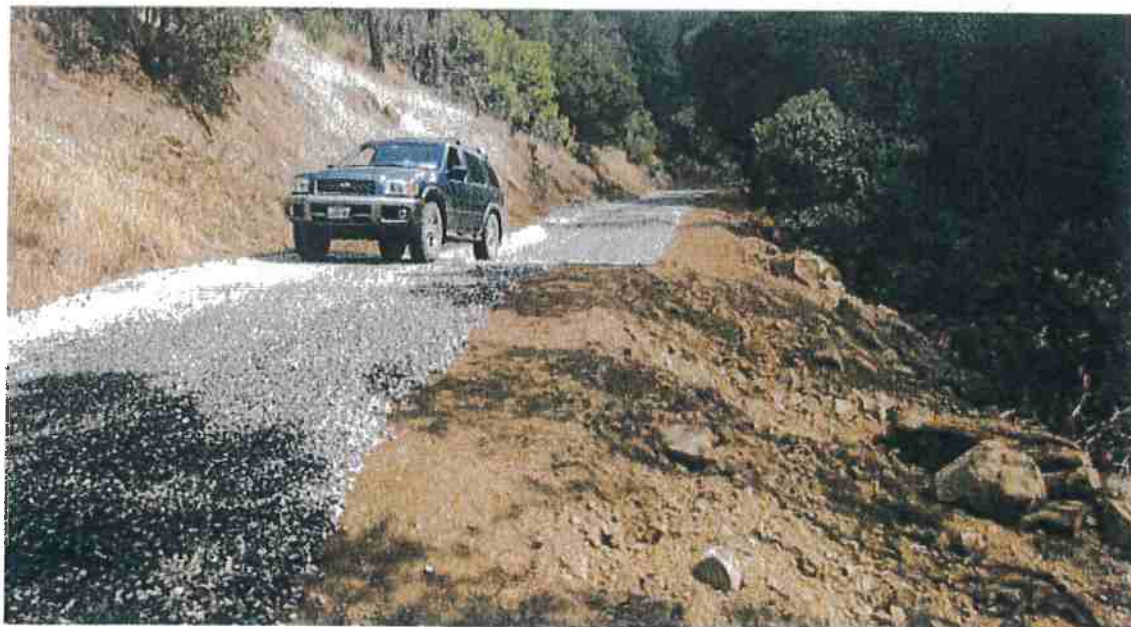


FIGURE 33B.

This side view of an outsloped road shows that the rolling dip does not have to be deep or abrupt to reverse road grade and effectively drain the road surface. This outsloped forest road has rolling dips that allow all traffic types to travel the route without changing speed.



BMP: Waterbar/Rolling Dip Combined with DRC



FIGURE 39.

Waterbars are often used to drain surface runoff from seasonal, unsurfaced roads. Because they are easily broken down by vehicles, waterbars are only used on unsurfaced roads where there is little or no wet weather traffic. In this photo, a waterbar and ditch relief culvert are used to drain all road surface and ditch runoff from the insloped road prism.

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Diagram shows and discussed the use of a waterbar. However, a DRC combined with a rolling dip structure provides the same surface and ditch drainage for roads used year-round. Just as with the waterbar in the photo above, The DRC is installed just upslope from the rolling dip. This also creates a fail-safe should the DRC become plugged or overwhelmed.

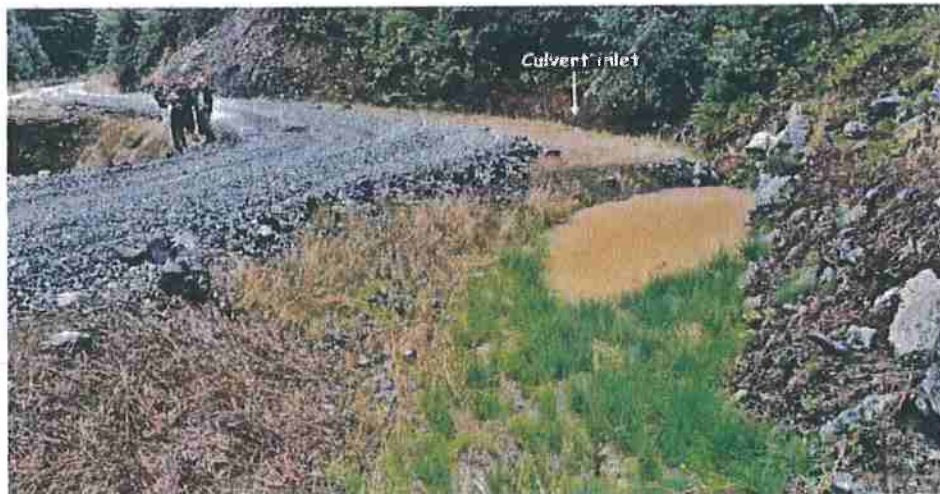
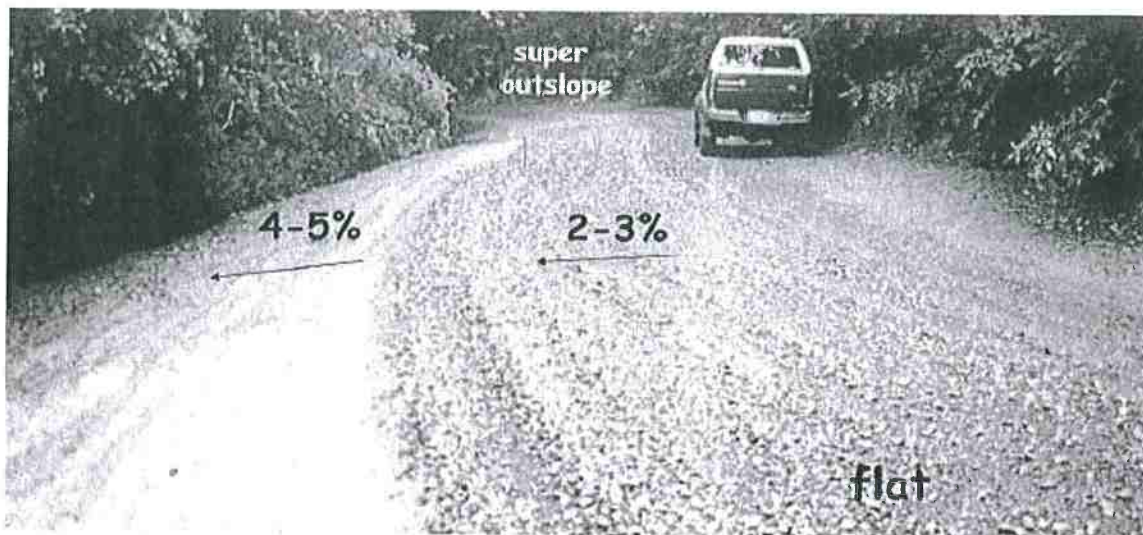


FIGURE 238. Traffic and surface runoff from graveled roads often produces surface erosion, turbid runoff and fine sediment transport that can be delivered to streams. Where ditches can't be eliminated, sediment traps and roadside settling basins can be installed to capture and remove most of the eroded sediment. This settling basin has been constructed along the inside ditch just before a stream crossing culvert inlet (see arrow). Eroded sediment from the road and ditch are deposited in the basin before flow is released to the stream. Fine sediments have filled about 1/3 of this basin and vegetation is now growing. Sediment basins require periodic maintenance to maintain their storage capacity.

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BMP: Road Outsloping



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FIGURE 29. Road shape changes as the road travels through the landscape. For example, an out-sloped road will have a steep or "banked" outslope through inside curves, a consistent outslope through straight reaches and a flat or slightly insloped shape as it goes through an outside curve. The road may have an outslope of 2-3% across the travel surface while the shoulder is more steeply outsloped to ensure runoff and sediment will leave the roadbed.

BMP: Steep Road Drainage Structures



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.

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BMP: Ditch Relief Culvert

- Install ditch relief culverts at an oblique (typically 30 degree) angle to the road so that ditch flow does not have to make a sharp angle turn to enter the pipe. On low gradient roads ($<5\%$), where ditch flow is slow, ditch relief culverts can be installed at right angles to the road.
- Install ditch relief culverts (DRC) to outlet at, and drain to, the base of the fill
- If it cannot be installed at the base of the fill, install the DRC with a grade steeper than the inboard ditch draining to the culvert inlet, and then install a downspout on the outlet to carry the culverted flow to the base of the fillslope or energy dissipater material at outlet to prevent erosion or the outboard road fill.
- Downspouts longer than 20 feet should be secured to the hillslope for stability.
- Ditch relief culverts should not carry excessive flow such that gullying occurs below the culvert outlet or such that erosion and down-cutting of the inboard ditch is occurring.
- Do not discharge flows from ditch relief culverts onto unstable areas or highly erodible hillslopes.
- If the ditch is on an insloped or crowned road, consider reshaping road outsloping to drain the road surface. The ditch and the ditch relief culvert would then convey only spring flow from the cutbank and hillslope runoff, and not turbid runoff from the road surface.

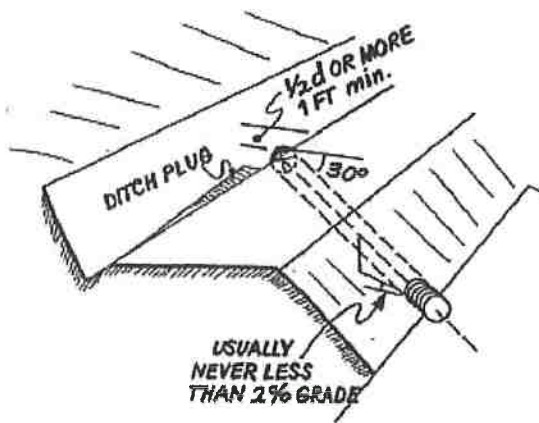
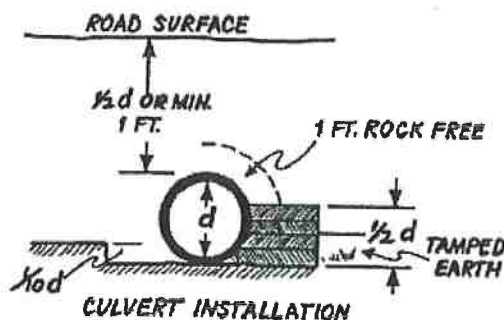


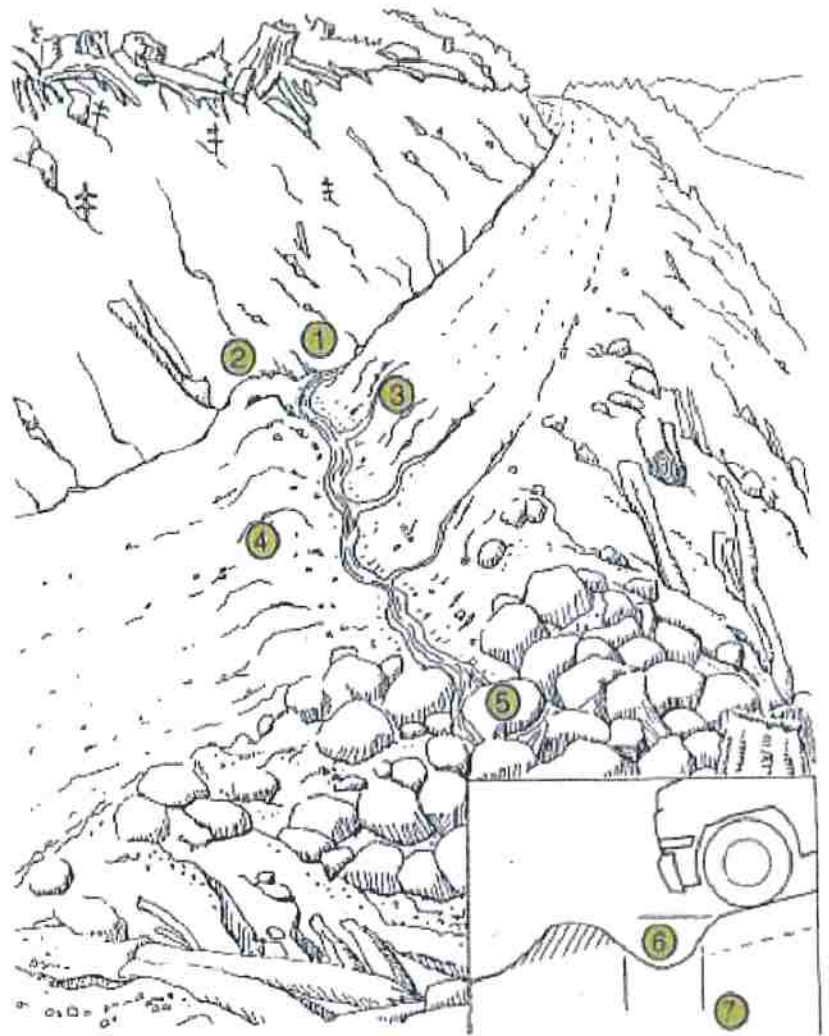
FIGURE 48. The elements of a properly installed ditch relief culvert. The culvert is angled at about 30 degrees to the road alignment to help capture flow and prevent culvert plugging or erosion of the inlet area. It is set at the base of the fill (ideally) or with a grade slightly steeper than the grade of the contributing ditch (but never with a grade less than 2 percent) (USDA-SCS, 1983). At a minimum, the grade of the ditch relief culvert should be sufficient to prevent sediment accumulation at the inlet or deposition within the culvert itself (it should be self-cleaning) (USDA-SCS, 1983).



BMP: Waterbar Construction

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).

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BMP: Rock Armor Cutbank

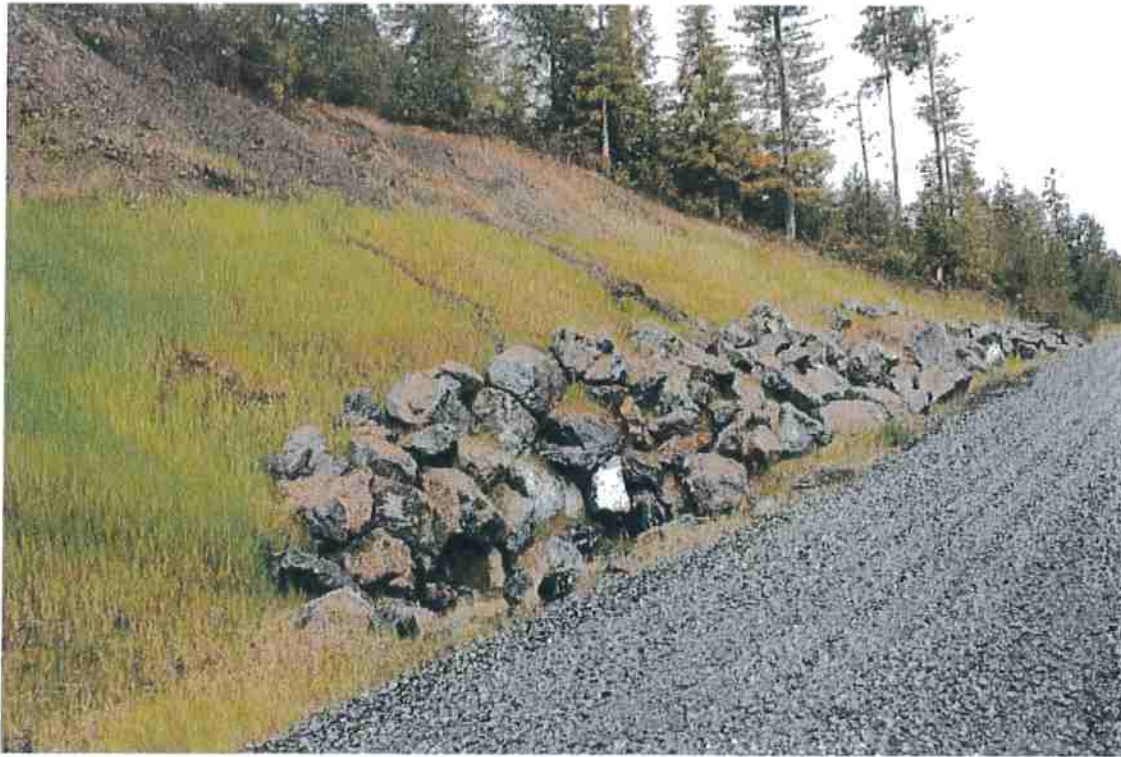


FIGURE 52. This wet and potentially unstable cut slope on a newly constructed road was stabilized using a buttress of large rock armor. To assure their effectiveness, rock buttresses and other retaining structures should be designed by a qualified engineer or engineering geologist.

HANDBOOK FOR FOREST, RANCH AND RURAL ROADS

BMP: Rip-Rap Size Class Table

TABLE 25. Standard classification and gradation of riprap by size of rock¹

Riprap size class	Median particle weight ²	Median particle diameter ² (in)	Minimum and maximum allowable particle size (in) ²							
			D ₁₅		D ₅₀		D ₈₅		D ₁₀₀	
			Min	Max	Min	Max	Min	Max	Min	Max
Class I	20 lb	6	3.7	5.2	5.7	6.9	7.8	9.2	12.0	
Class II	60 lb	9	5.5	7.8	8.5	10.5	11.5	14.0	18.0	
Class III	150 lb	12	7.3	10.5	11.5	14.0	15.5	18.5	24.0	
Class IV	300 lb	15	9.2	13.0	14.5	17.5	19.5	23.0	30.0	
Class V	¼ ton	18	11.0	15.5	17.0	20.5	23.5	27.5	36.0	
Class VI	3/8 ton	21	13.0	18.5	20.0	24.0	27.5	32.5	42.0	
Class VII	½ ton	24	14.5	21.0	23.0	27.5	31.0	37.0	48.0	
Class VIII	1 ton	30	18.5	26.0	28.5	34.5	39.0	46.0	60.0	
Class IX	2 ton	36	22.0	31.5	34.0	41.5	47.0	55.5	72.0	
Class X	3 ton	42	25.5	36.5	40.0	49.5	54.5	64.5	84.0	

¹Lagasse et al (2006)

²Equivalent to spherical diameter

BMP: Generator, Fuel, and Oil Management

All bulk fuel storage or petroleum products, any/all future 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 shall be of suitable material and construction to be compatible with the substance(s) stored and conditions of storage such as pressure and temperature. 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 cover shall be provided to prevent any/all precipitation from entering said secondary containment vessel.

If the volume of a fuel container is greater than 1,320 gallons, a Spill Prevention, Control, and Countermeasures (SPCC) plan will be required for the use the fuel tank.

On-site storage of petroleum products, or other fuels used for commercial activities may require registration as hazardous materials through the California Environmental Reporting System (CERS). Additionally, the waste oil generated from commercial activities (generators) and their used oil filters are considered hazardous waste and requires additional reporting. The discharger is advised to contact local agencies to find out if such reporting is applicable to current operations.

Used motor oil is recommended to be stored in sealed containers that the oil was originally packaged in, e.g. sealed buckets/quart or gallon jugs, or other sealed containers designed to store motor oil. Stored used oil is recommended to be regularly disposed of at hazardous waste disposal sites. Used oil filters are also recommended to be stored in sealed containers, e.g. sealed plastic totes/buckets, for later disposal at a hazardous waste disposal site. These storage containers are recommended to be stored in structures where they are protected from precipitation.

Further information regarding the State of California's requirements for the managing of Used Oil and Oil Filters can be found by entering the links below or searching the corresponding titles to the links.

California Department of Toxic Substances Control - Used Oil Generator Requirements

- <https://www.dtsc.ca.gov/InformationResources/upload/RAG-UsedOilforGenerators.pdf>

Department of Toxic Substances Control - Managing Used Oil Filters for Generator

- https://www.dtsc.ca.gov/InformationResources/upload/RAG_Used-Oil-Filters_Generators1.pdf

BMP: Generator, Fuel, and Oil Management (Generators and Pumps)

All generators and petroleum powered pumps are recommended to have spill trays or secondary containment placed underneath them when using, fueling, or changing oil on them to prevent the potential for leeching, seepage or spillage of petroleum products. All spill trays and containment structures require cover from precipitation. All generators and petroleum powered pump locations are also recommended to have spill cleanup kits on hand.

Pre-fabricated secondary containment structures and spill trays can be purchased online or from local wholesalers of petroleum products. As an alternative to pre-fabricated secondary containment structures, structures can be constructed from wooden, cinderblock, concrete, or metal frames lined with PVC liners, e.g. pond liner/water bladder material, as long as the containment is fully sealed and constructed in a similar manner to examples of pre-fabricated containment structures found below. Ensure that diked areas are sufficiently impervious to contain discharged chemicals. All containment structures require cover from precipitation to prevent the containment from filling with water. Secondary containment for fuel tanks shall not be constructed.

As an alternative to pre-fabricated spill kits, kits can consist of sealed trashcans or buckets with industrial absorbent material (e.g. cat litter) and shovels, placed nearby any location where generators, pumps, or other petroleum products or chemicals are used.

Examples of industry standard pre-fabricated spill containment and clean-up kits can be found following or entering the links below. Pre-fabricated spill containment and clean-up kits can be purchased online, from Renner Petroleum, or other similar industry providers.

Ultratech Spill Containment

- <http://www.spillcontainment.com/categories/spill-containment/>

New Pig Portable and Collapsible Spill Containment

- <https://www.newpig.com/collapsible-berms/c/5142?show=All>

BMP: Generator, Fuel, and Oil Management

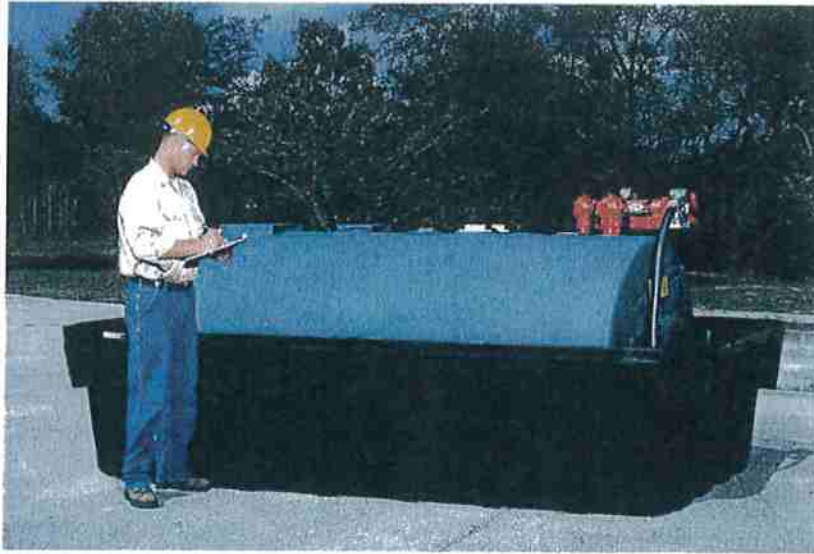


Example of a small, portable, and compact containment berm.



Example of a portable utility spill tray.

BMP: Generator, Fuel, and Oil Management



Example of secondary containment for a fuel tank. This container requires cover from precipitation.



Example of spill pallets for unused or used oil drums and other petroleum products.

Monitoring Plan

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

- Remove any wood debris that may restrict flow in a culvert.
- Remove sediment that impacts access road or drainage feature performance.
- Place any removed sediment in a location outside the riparian setbacks and stabilize the sediment.
- Maintain records of access road and drainage feature maintenance for annual reporting.

Cannabis cultivators that are operating in areas that are, or may become, inaccessible during winter months due to extreme weather such as snow, road closures, seasonal access roads to the property, or any other such conditions shall make additional efforts to enhance winterization measures in the absence of monitoring during storm events.

Monitoring Requirements

(Tier 2, Low Risk, < 1 acre of cultivation)

Monitoring Requirement	Description
Winterization Measures Implemented	Report winterization procedures implemented, any outstanding measures, and the schedule for completion.
Tier Status Confirmation	Report any changes in the tier status.
Third Party Identification	Report any change in third party status as appropriate.

Annual Reporting

Annual Reports shall be submitted to the North Coast Regional Water Quality Control Board by March 1st following the year being monitored. The first Annual Report for this enrollment shall be submitted by March 1st, 2020 and report on monitoring done during the 2019 calendar year. Annual reporting is required each subsequent year of enrollment.

Attachments

Implementation of Applicable BPTC Measures

Assessment of applicable BPTC measures consisted of a field examination on August 28, 2019. Anywhere applicable BPTC measures are not met on the property, descriptions of the assessments and the prescribed treatments are outlined following each associated section below.

Summary of BPTC Measures Compliance

1. Sediment Discharge BPTC Measures Y☐/N☒
2. Fertilizer, Pesticide, Herbicide, and Rodenticide BPTC Measures Y☒/N☐
3. Petroleum Product BPTC Measures Y☒/N☐
4. Trash/Refuse, and Domestic Wastewater BPTC Measures Y☐/N☒
5. Winterization BPTC Measures Y☒/N☐

1. Sediment Discharge BPTC Measures

1.1. Site Characteristics

- 1.1.1. Provide a map showing access roads, vehicle parking areas, streams, stream crossings, cultivation site(s), disturbed areas, buildings, and other relevant site features.

See attached Site Map.

- 1.1.2. 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.).

See sections "Land Development and Maintenance, Erosion Control, and Drainage Features" above, and the attached Mitigation Report, Site Maps, and Treatment Implementation Schedule for site specific descriptions, treatments, and the implementation schedule.

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

See the section titled "Stream Crossing Installation and Maintenance" and the attached Mitigation Report and Site Maps for site specific details and treatment schedules.

- 1.1.3.1. 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 identified during the assessment of the property. Three short spur roads were identified as legacy roads on the Site Maps because they were constructed for past timber harvest activities, and do not access the cultivation or any cultivation facilities. There are no legacy waste discharges associated with these roads. They have naturally rocky surfaces covered with forest leaf litter, are growing over with vegetation, and are not eroding.

- 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)

1.2.1. Erosion Prevention BPTC Measures

- 1.2.1.1. Describe the BPTC measures that have been, or will be implemented to prevent or limit erosion. Provide an implementation schedule for BPTC measures that have not yet been implemented. Identify the erosion prevention BPTC measures on a site map.

See the attached Mitigation Report, Site Maps, and Treatment Implementation Schedule for site specific descriptions, treatments, and the implementation schedule.

- 1.2.1.1.1. The description shall address physical BPTC measures, (e.g., placement of straw mulch, plastic covers, slope stabilization, soil binders, culvert outfall armoring, etc.) and biological BPTC measures (vegetation preservation/replacement, hydro seeding, etc.).

See the attached Mitigation Report and Best Management Practices (BMPs) for descriptions of physical BPTC measures being prescribed.

1.2.2. Sediment Control BPTC Measures

- 1.2.2.1. Describe the BPTC measures that have been, or will be implemented to capture sediment that has been eroded. Provide an implementation schedule for BPTC measures that have not yet been implemented. Identify the sediment control BPTC measures on a site map.

Not applicable. No BPTC measures have been, or will need to be, implemented to capture sediment that has been eroded.

- 1.2.2.1.1. The description shall address physical BPTC measures, (e.g., placement of silt fences, fiber rolls, or settling ponds/areas, etc.) and biological BPTC measures (vegetated outfalls, hydro seeding, etc.).

1.2.3. Maintenance Activities - Erosion Prevention and Sediment Control

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

Erosion prevention BPTC measures and all corresponding work shall be inspected prior to and in conjunction with winter monitoring, as described above under the "Monitoring Plan" to ensure proper placement, installation, and function remain intact prior to and throughout the Winter Period.

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

Not applicable.

- 1.2.4. Erosion control BPTC measures: 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.

There was no sediment transport observed at any of the disturbed areas and there are no improperly constructed features. Disturbed areas are located on stable, rocky, ridgetop locations outside of riparian setbacks surrounded by heavily timbered areas.

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

- 2.1. 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 table below.

- 2.2. Provide a site map that locates storage locations.

See attached Site Map. Fertilizers and pesticides are currently stored inside the Barn / Ag Building or in a storage area attached to the house. These locations are secured and outside of the riparian setbacks. See the Mitigation Report for secondary containment requirements.

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

Fertilizer, Pesticides, and Herbicide Products used on Site

Product	Delivery and Storage	On-site usage	How removed or stored
<p><u>Dry / Powders:</u> Azos, Mykoz, Age Old Dry Grow, Guano Nitro Bat, Xtreme Gardening Tea, Age Old Dry Full Bloom, Age Old Dry Fruit, Raw Silica</p> <p><u>Liquids:</u> Fox Farm Grow Big, Fox Farm Bloom Big, Biobud, Silica Blast, Age Old Grow, Age Old Sweet Finish, Age Old Bloom, Swich</p> <p><u>Gels:</u> Clonex Gel</p> <p><u>Pesticides:</u> Regalia CG, Plant Therapy, Venerate, Safer Insect Soap, Safer 3 in 1 Soap, Safer Insect Kill Soap</p>	Brought to property as needed. Stored within covered storage sheds outside of riparian setbacks.	Mixed into tanks with water, then hand watered to individual plants as needed, or sprayed on foliage. Solids are mixed into soil as an amendment.	Stored within covered storage sheds outside of riparian setbacks. Empty containers are disposed of at an appropriate waste disposal facility on a regular basis.

- 2.4. Describe procedures for spill prevention and cleanup.

The cannabis cultivator shall obtain adequate quantities of absorbent materials and ensure that they are stored at all locations where the materials above are used, stored, or mixed. Should a spill of these materials occur, absorbent materials will be applied immediately and allowed enough time to absorb as much material as possible. Following treatment, absorbent materials applied will be removed and disposed of appropriately as per the manufacturer's guidelines.

3. Petroleum Product BPTC Measures

- 3.1. 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 table below.

- 3.2. Provide a site map that locates storage locations.

See attached Site Map.

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

Petroleum Products

Products used on site	When they are delivered to site	How they are stored and used	How removed or stored
Gasoline	Brought to site when needed throughout the year.	Standard 5-gallon canisters are stored inside of the enclosed generator shed with built-in secondary containment, or shall be stored inside of enclosed metal or plastic boxes at cultivation areas when not in use. Gasoline is used to fuel small generators at the cultivation areas or to run gas powered hand tools.	Stored in standard 5-gallon gasoline canisters inside of the enclosed generator shed with built-in secondary containment until used up on the property.
Diesel	Brought to site when needed throughout the year.	Stored in two 1,000-gallon steel tanks with secondary containment tanks, inside the fully enclosed fuel storage shed. Used to fuel a generator that powers the House and Barn / Ag Building.	Stored in two 1,000-gallon steel tanks with secondary containment tanks, inside the enclosed fuel storage shed until used up on the property.
Motor oil	Brought to site when needed throughout the year.	Stored in their containers inside of the enclosed generator shed with built-in secondary containment. Used to lubricate internal combustion engines.	After oil changes, used motor oil is stored in the container it came in or in sealed 5-gallon buckets, inside of the enclosed generator shed with built-in secondary containment. It is taken off of the property for later disposal at an appropriate waste disposal facility.

3.4. Describe procedures for spill prevention and cleanup.

Adequate quantities of absorbent materials shall be stored at all locations where these types of materials are used, stored, or mixed. Should a spill of these materials occur, absorbent materials will be applied immediately and allowed enough time to absorb as much material as possible. Following treatment, absorbent materials applied as well as any contaminated soil will be removed and disposed of appropriately for the spilled material.

4. Trash/Refuse, and Domestic Wastewater BPTC Measures

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

Domestic and commercial cannabis trash and refuse will be generated at the site. The trash/refuse is stored in covered garbage cans or a covered dumpster near the house, barn, and cultivation areas prior to disposal at an appropriate waste disposal facility.

- 4.1.1. Provide a site map that locates the trash/refuse storage locations.

Trash and refuse are stored near the house, barn, and cultivation areas. See attached Site Map.

- 4.2. Describe the number of employees, visitors, or residents at the site.

There are two to four regular employees who are at the site during the cultivation season. Visitors are occasionally on site, including consultants and regulatory agencies. There is also a full-time residence on the property as well.

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

Domestic sewage and wastewater (greywater) are generated on site.

- 4.2.2. Describe how the domestic wastewater is disposed.

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

Domestic sewage is disposed via a permitted septic system attached to the Barn / Ag Building. There are functioning, unpermitted septic systems attached to the House and the Cabin. Both of these sites are far from riparian setbacks and are in planning stages of being brought up to county code.

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

Not applicable.

- 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.

None identified during the inspection.

- 4.2.2.3.1. Provide a site map that locates any domestic wastewater treatment, storage, or disposal area.

See attached Site Map for locations of residences with attached septic systems.

5. Winterization BPTC Measures

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

See Mitigation Report and Annual Winterization Measures for prescribed general winterization measures that will be performed prior to each Winter Period.

- 5.2. 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.

Existing drainage structures will be inspected, maintained, or repaired as feasible and necessary with hand tools during annual winterization and winter monitoring. Prescribed repair and maintenance will be executed in accordance with the Mitigation Report and Treatment Implementation Schedules.

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

Not applicable.

- 5.4. If any BPTC measure cannot be completed before the onset of Winter Period, contact the Regional Water Board to establish a compliance schedule.

See the attached Mitigation Report and Treatment Implementation Schedule for site descriptions, treatments, and the implementation schedule.

- 5.5. 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 identified during the assessment of the property.



Site 01: Crossing inlet and outlet: Photo date: 9/11/2018



Site 02: Crossing inlet. Photo date: 9/11/2018



Site 03: Crossing outlet. Photo date: 9/11/2018



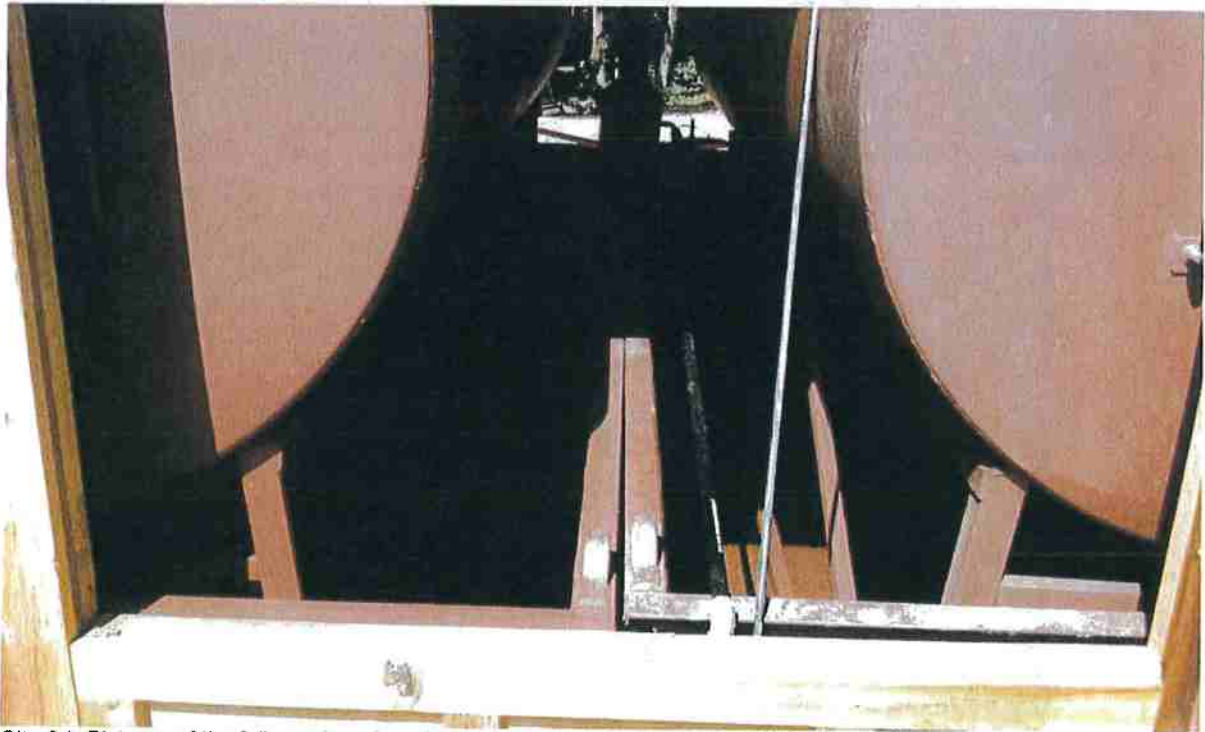
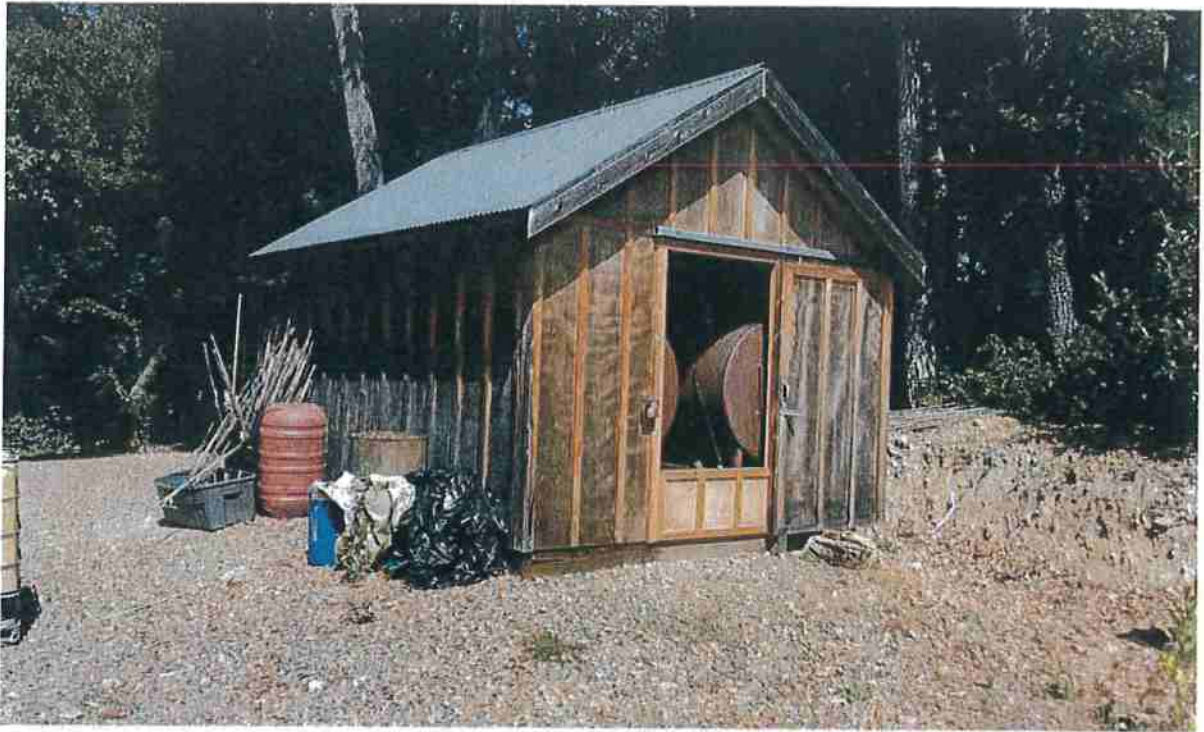
Site 04: Crossing outlet. Photo date: 9/11/2018



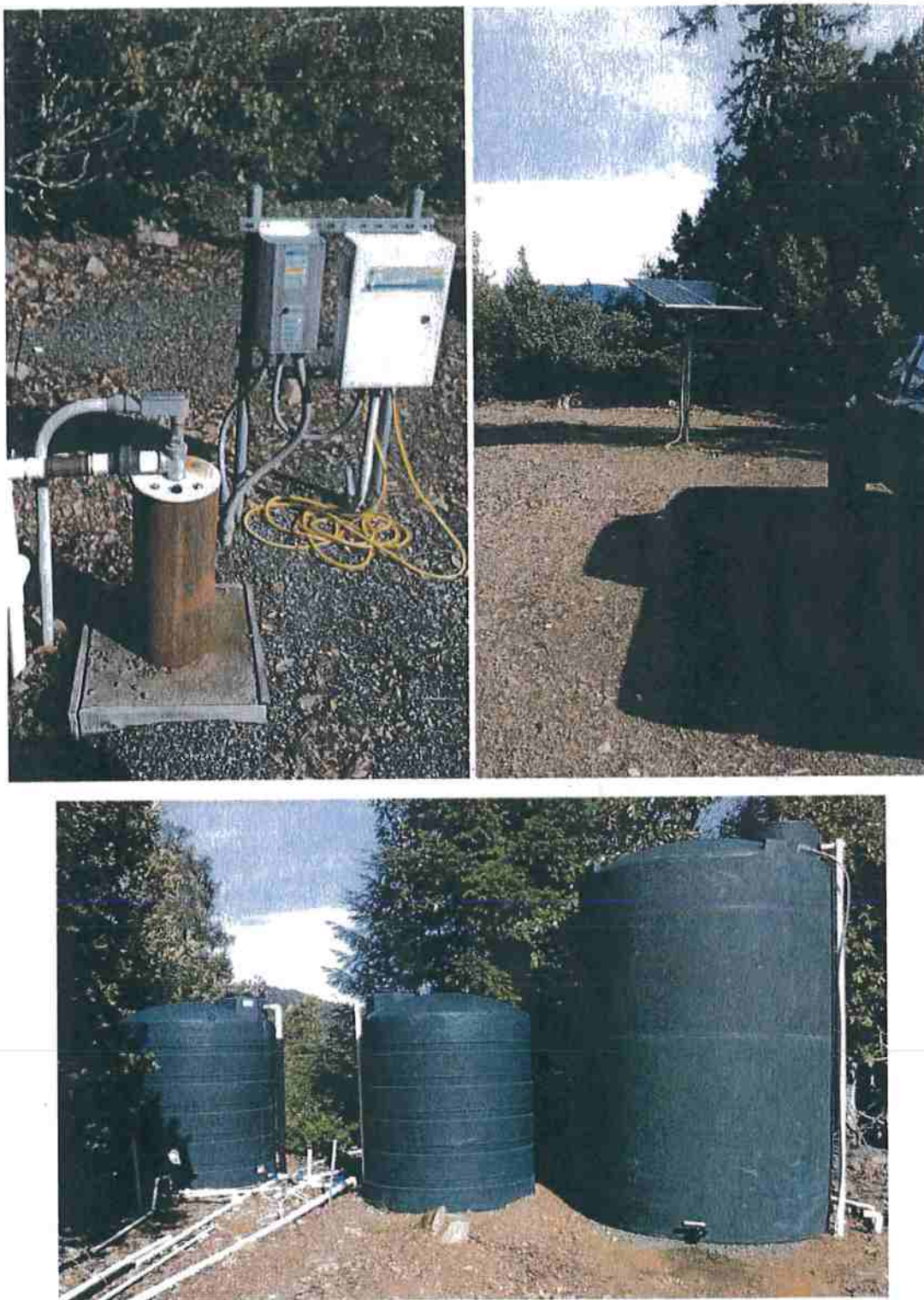
Site 05: Crossing inlet and outlet. Photo date: 9/11/2018



Site 09: Crossing outlet. Photo date: 9/11/2018



Site 24: Pictures of the fully enclosed, and contained diesel storage tanks. Photo Date: 8/28/2019.



Well: Pictures of the well, solar panel, and the holding tanks at the well site on the property. Photo Date: 8/28/2019.