

# Water Resource Protection Plan

**APN 522-031-007**

**TRC# 180101020102TRC245**

*Submitted to:*

**Dominic Gabriel**

*Prepared by:*

**Timberland Resource Consultants**

**165 South Fortuna Blvd**

**Fortuna, CA 95540**

**1/3/2017**



**Purpose**

This Water Resource Protection Plan (WRPP) has been prepared on behalf of the property owner, Dominic Gabriel, for the Humboldt County property identified as parcel number 522-031-007 by agreement and in response to the California Water Code Section 13260(a), which requires that any person discharging waste or proposing to discharge waste within any region that could affect the quality of the waters of the state, other than into a community sewer system, shall file with the appropriate regional water board a Report of Waste Discharge (ROWD) containing such information and data as may be required by the Regional Water Board. The Regional Water Board may waive the requirements of Water Code section 13260 for specific types of discharges if the waiver is consistent with the Basin Plan and in the public interest. Any waiver is conditional and may be terminated at any time. A waiver should include monitoring requirements to verify the adequacy and effectiveness of the waiver's conditions. Order R1-2015-0023 conditionally waives the requirement to file a ROWD for discharges and associated activities described in finding 4.

**Scope of Report**

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

**Methods**

The methods used to develop this WRPP include both field and office components. The office component consisted of aerial photography review and interpretation, existing USGS quad map review, GIS mapping of field data, review of on-site photography points, streamflow calculations, and general planning. The field component included identifying and accurately mapping all watercourses, wet areas, and wetlands located downstream of the cultivation areas, associated facilities, and all appurtenant roads accessing such areas. An accurate location of the Waters of the State is necessary to make an assessment of whether potential and existing erosion sites/pollution sites have the potential to discharge waste to an area that could affect waters of the State (including groundwater). Next, all cultivation areas, associated facilities, and all appurtenant roads accessing such areas were assessed for discharges and related controllable water quality factors from the activities listed in Order R1-2015-0023, Finding 4a-j. The field assessment also included an evaluation and determination of compliance with the Standard Conditions per Provision I.B of Order No.

**Methods (Cont.)**

R1-2015-0023. The water resource protection plans required under Tier 2 are meant to describe the specific measures a Discharger implements to achieve compliance with standard conditions. Therefore, all required components of the water resource protection plan per Provision I.B of Order No. R1-2015-0023 were physically inspected and evaluated. A comprehensive summary of each Standard Condition as it relates to the subject property is appended.



**Property Description**

The property assessed is a 160-acre parcel consisting of timberland with slopes averaging 18% across the cultivation area. The property is located approximately 7 miles directly southwest of Hoopa, California on the western facing aspect of Indian Field Ridge at an elevation of 3,600 feet. There are eight Class III watercourses, one Class II and one wetland area located on the property. All watercourses on the property are tributaries to Minor Creek which is a tributary to Redwood Creek. The property is located in the NE ¼ of Section 30 of Township 7N, Range 4E, Humboldt County, HB&M, of the Lord-Ellis Summit USGS 7.5" quad map.

**Monitoring Plan**

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

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

**Monitoring Plan Reporting Requirements**

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

**Assessment of Standard Conditions**

Assessment of Standard Conditions consisted of field examinations 7/26/2016. The examination evaluated areas near, and areas with the potential to directly impact, watercourses for sensitive conditions including, but not limited to, existing and proposed roads, skid trails and landings, unstable and erodible watercourse banks, unstable upslope areas, debris, jam potential, inadequate flow capacity, changeable channels, overflow channels, flood prone areas, and riparian zones. Field examinations also evaluated all roads and trails on the property, developed areas, cultivation sites, and any structures and facilities appurtenant to cultivation on the property. Anywhere the Standard Conditions are not met on the property, descriptions of the assessments and the prescribed treatments are outlined following each associated section below.

## Summary of Standard Conditions Compliance

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

### A. Standard Conditions, Applicable to All Dischargers

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

- a. Roads shall be maintained as appropriate (with adequate surfacing and drainage features) to avoid developing surface ruts, gullies, or surface erosion that results in sediment delivery to surface waters.
- b. Roads, driveways, trails, and other defined corridors for foot or vehicle traffic of any kind shall have adequate ditch relief drains or rolling dips and/or other measures to prevent or minimize erosion along the flow paths and at their respective outlets.
- c. Roads and other features shall be maintained so that surface runoff drains away from potentially unstable slopes or earthen fills. Where road runoff cannot be drained away from an unstable feature, an engineered structure or system shall be installed to ensure that surface flows will not cause slope failure.
- d. Roads, clearings, fill prisms, and terraced areas (cleared/developed areas with the potential for sediment erosion and transport) shall be maintained so that they are not hydrologically connected<sup>1</sup>, as feasible, from surface waters, including wetlands, ephemeral, intermittent and perennial streams.

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

- e. Ditch relief drains, rolling dip outlets, and road pad or terrace surfaces shall be maintained to promote infiltration/dispersal of outflows and have no apparent erosion or evidence of soil transport to receiving waters.
- f. Stockpiled construction materials are stored in a location and manner so as to prevent their transport to receiving waters.

**Unstable Site 004 – This area is a section of road reconstruction through an unstable area first observed in 1972 aerial photography. The failure is a dormant-historic, advancing, translational rockslide. Attached is a detailed geologist report from Oswald Geologic of this unstable site.**

**Unstable Site 009 – This area is a dormant-historic cutbank failure. The failure is about 75 feet wide and 125 feet long. The majority of the failed cut rests on and covers the existing road prism. Attached is a detailed geologist report from Oswald Geologic of this unstable site.**

**Road Point 1 – A rolling dip with a lead out ditch. The Discharger will maintain this drainage feature.**

**Road Point 3 – A ford crossing over a head of a Class III watercourse. Concentrated hillslope runoff originating from the cultivation area flat is saturating the road resulting in rutting of the road and large amounts of sediment discharge. The Discharger will install an armored fill/rocked ford crossing at this location to secure the road surface and to prevent sediment delivery to the Class III watercourse below.**

**Road Point 4 – Concentrated road surface runoff is causing erosion of the roads fill slope. The Discharger will maintain the roads fill slope by placing stabilizing rock on the inside corner and spreading seed to vegetate the rest of the fill slope.**

**Road Point 5 – Concentrated road surface runoff is eroding the road surface. The Discharger will apply road rock to the three-way intersection. The Discharger shall apply road rock on the road's surface leading up the intersection and 20 feet past the erosion site in the direction of the neighbor's property line.**

**Road Point 7 – 18-inch diameter corrugated plastic pipe ditch relief culvert. Inlet and outlet are rock armored with no signs of scour, down cutting, or erosion of the fill slope. The road is in good condition and shows no sign of erosion from culvert plugging and overtopping. The culvert will be monitored for plugging of debris. Debris will be removed if it's plugging the culvert or if it poses a future risk of plugging.**

**Road Point 8 – 18-inch diameter corrugated plastic pipe ditch relief culvert. Inlet and outlet are rock armored with no signs of scour, down cutting, or erosion of the fill slope. The road is in good condition and shows no sign of erosion from culvert plugging and overtopping. The culvert will be monitored for plugging of debris. Debris will be removed if it's plugging the culvert or if it poses a future risk of plugging.**

**Road Point 14 – Concentrated road surface and hillslope runoff, originating from the cultivation site flat and the fill slope, is eroding the road surface and road fill slope. The Discharger will out-slope the road around the base of the cultivation site fill slope to the armored fill/rocked ford at Road Point 3 and resurface the road with road rock.**

**Map Point 1 – Concentrated runoff coming from the cultivation site area is causing erosion of the fill slope down to Road Point 3 and Road Point 14. The Discharger will implement mitigation measures to reduce the sediment load and cultivation site surface runoff being delivered to the Class III watercourse below. The Discharger will seed and mulch the fill slope of the cultivation site. The Discharger will also in-slope the entire cultivation flat to prevent surface flows from traveling over the fill slopes edge and traveling down the fill slope to Road Points 3 and 14. (The in-slope will then be graded to drain surface runoff flows to the base of the cut bank, the base of the bank on which the shed and camper trailer on, where a trench will be dug to drain to the northeast corner of the cultivation site.) From here a lead out ditch will be placed to effectively drain flows away from the cultivation site fill. This lead out ditch will also be rocked to secure it from erosion cutting. The Discharger will also seed and mulch the entire fill slope of the cultivation flat between Map Point 1 and Road Point 3 and Road Point 14. This can be achieved by placing erosion control matting, staked waddles (fiber logs), and seeding and mulching all exposed ground down to the road.**

**See Figure 27, Figure 28, Figure 29, Figure 48, Figure 238, Figure 120, Figure 121, Table 18, Table 20, and Table 34 for further information on out-sloping, inside ditch, armored and rocked ford, sediment control, and ditch relief culvert construction. This standard condition is not being met at this time.**

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

- a. Culverts and stream crossings shall be sized to pass the expected 100-year peak streamflow.
- b. Culverts and stream crossings shall be designed and maintained to address debris associated with the expected 100-year peak streamflow.
- c. Culverts and stream crossings shall allow passage of all life stages of fish on fish-bearing or restorable streams, and allow passage of aquatic organisms on perennial or intermittent streams.
- d. Stream crossings shall be maintained so as to prevent or minimize erosion from exposed surfaces adjacent to, and in the channel and on the banks.
- e. Culverts shall align with the stream grade and natural stream channel at the inlet and outlet where feasible.<sup>2</sup>

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

- f. Stream crossings shall be maintained so as to prevent stream diversion in the event that the culvert/crossing is plugged, and critical dips shall be employed with all crossing installations where feasible.<sup>3</sup>

**There are ten watercourse crossings located on the property. Eight are Class III watercourses and two are Class II watercourses. Culverts at Road Points 7 to 13 have been recently installed during the re-construction of an access road to timberland conversion areas per an approved CDFW 1600 permit. Upon inspection, inlets and outlets are rock armored with no signs of scour, down cutting, or erosion of the fill slope. Road crossings at all culverts are in good condition and show no sign of erosion from culvert plugging and overtopping. All culverts will be monitored for plugging of debris. Debris will be removed if either the debris is plugging the culvert or if it poses a future risk of plugging. If through monitoring it is determined that any culvert is undersized, it will be replaced with an upsized culvert.**

**Road Point 2 – Wetland pond overflow crossing with an 18-inch diameter corrugated metal pipe. Inlet and outlet are rock armored with no signs of scour, down cutting, or erosion of the fill slope. The road is in good condition and shows no sign of erosion from culvert plugging and overtopping. The culvert will be monitored for plugging of debris. Debris will be removed if either the debris is plugging the culvert or if it poses a future risk of plugging.**

**Road Point 6 – Class III watercourse crossing with an 18-inch diameter corrugated metal pipe. The culvert is appropriately sized for 100-year peak streamflow accounting for a HW/D (headwall to culvert diameter) of 2.0, but is not sized correctly for a HW/D of 1.0, which is the desired standard. Inlet and outlet are rock armored with no signs of scour, down cutting, or erosion of the fill slope. The road is in good condition and shows no sign of erosion from culvert plugging and overtopping. The culvert will be monitored for plugging of debris. Debris will be removed if either the debris is plugging the culvert or if it poses a future risk of plugging. If through monitoring it becomes apparent that the culvert is undersized, it will be replaced with an upsized culvert.**

**Road Point 9 – Class III watercourse crossing with a 48-inch diameter corrugated metal pipe. The culvert is appropriately sized for 100-year peak streamflow accounting for a HW/D (headwall to culvert diameter) of 1.4, but is not sized correctly for a HW/D of 1.0, which is the desired standard. Inlet and outlet are rock armored with no signs of scour, down cutting, or erosion of the fill slope. The road is in good condition and shows no sign of erosion from culvert plugging and overtopping. The culvert will be monitored for plugging of debris. Debris will be removed if either the debris is plugging the culvert or if it poses a future risk of plugging.**

**Road Point 10 – Class III watercourse crossing with a 36-inch diameter corrugated metal pipe. The culvert is appropriately sized for 100-year peak streamflow accounting for a HW/D (headwall to culvert diameter) of 1.3, but is not sized correctly for a HW/D of 1.0, which is the**

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

desired standard. Inlet and outlet are rock armored with no signs of scour, down cutting, or erosion of the fill slope. The road is in good condition and shows no sign of erosion from culvert plugging and overtopping. The culvert will be monitored for plugging of debris. Debris will be removed if either the debris is plugging the culvert or if it poses a future risk of plugging.

**Road Point 11 – Class III watercourse crossing with an 18-inch diameter corrugated metal pipe. The culvert is appropriately sized for 100-year peak streamflow. Inlet and outlet are rock armored with no signs of scour, down cutting, or erosion of the fill slope. The road is in good condition and shows no sign of erosion from culvert plugging and overtopping. The culvert will be monitored for plugging of debris. Debris will be removed if either the debris is plugging the culvert or if it poses a future risk of plugging.**

**Road Point 12 – Class III watercourse crossing with a 24-inch diameter corrugated metal pipe. The culvert is appropriately sized for 100-year peak streamflow accounting for a HW/D (headwall to culvert diameter) of 1.5, but is not sized correctly for a HW/D of 1.0, which is the desired standard. Inlet and outlet are rock armored with no signs of scour, down cutting, or erosion of the fill slope. The road is in good condition and shows no sign of erosion from culvert plugging and overtopping. The culvert will be monitored for plugging of debris. Debris will be removed if either the debris is plugging the culvert or if it poses a future risk of plugging. If through monitoring it becomes apparent that the culvert is undersized, it will be replaced with an upsized culvert.**

**This culvert is beginning to plug with native rock material from around the inlet. Removal of this debris is recommended before winter to prevent further accumulation of debris resulting in plugging of the culvert.**

**Road Point 13 – Class III watercourse crossing with a 24-inch diameter corrugated metal pipe. The culvert is appropriately sized for 100-year peak streamflow accounting for a HW/D (headwall to culvert diameter) of 1.5, but is not sized correctly for a HW/D of 1.0, which is the desired standard. Inlet and outlet are rock armored with no signs of scour, down cutting, or erosion of the fill slope. The road is in good condition and shows no sign of erosion from culvert plugging and overtopping. The culvert will be monitored for plugging of debris. Debris will be removed if either the debris is plugging the culvert or if it poses a future risk of plugging. If through monitoring it becomes apparent that the culvert is undersized, it will be replaced with an upsized culvert.**



Road Point (RP)	Channel length (to top of basin) (mi) L	Elevation difference (ft) H	Concentration time (min) Tc	Runoff coefficient C	100-year Return-Period Precipitation (in/hr) I*	Area (acres) A	100-yr flood flow (cfs) Q100
RP 6				0.35	5.058	6	10.6
RP 9				0.35	5.058	25	44.3
RP 10				0.35	5.058	24	42.5
RP 11				0.35	5.058	5	8.9
RP 12				0.35	5.058	8	14.2
RP 13				0.35	5.058	9	15.9

HW/D	CU18	CU24	CU30	CU36	CU42	CU48	CU54	CU60	CU72	CU84	CU96
1.0	5.6	11.6	20	32	47	66	89	115	180	265	375
1.1	6.4	13	23	35	53	75	99	128	200	300	425
1.2	7	14.5	25	40	59	83	109	141	230	330	475
1.3	7.9	16.5	28	44	64	90	120	158	250	370	520
1.4	8.2	16.7	30	46	68	96	125	165	260	390	545
1.5	8.9	18	32	50	72	101	135	178	290	420	590
1.6	9.2	19	34	52	77	108	143	189	300	440	620
1.7	9.8	20	35	55	80	111	150	195	310	450	650
1.8	10	21	36	57	84	118	158	203	330	480	675
1.9	10.5	21.9	37	60	88	122	164	212	340	500	700
2.0	11	22.1	39	61	90	128	170	220	350	520	730
2.2	11.5	24	41	66	95	133	180	232	375	550	780
2.4	12.2	25	44	70	100	142	190	250	390	590	810
2.6	12.9	26.5	46	72	105	150	199	260	420	610	860
2.8	13.4	27.5	48	78	110	156	210	270	440	640	900
3.0	14	29	50	80	118	162	220	282	450	680	940

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

- a. For Tier 1 Dischargers, cultivation areas or associated facilities shall not be located within 200 feet of surface waters. While 200 foot buffers are preferred for Tier 2 sites, at a minimum, cultivation areas and associated facilities shall not be located or occur within 100 feet of any Class I or II watercourse or within 50 feet of any Class III watercourse or wetlands. The Regional Water Board or its or its Executive Officer may apply additional or alternative<sup>4</sup> conditions on enrollment, including site-specific riparian buffers and other BMPs beyond those identified in water resource protection plans to ensure water quality protection.
- b. Buffers shall be maintained at natural slope with native vegetation.
- c. Buffers shall be of sufficient width to filter wastes from runoff discharging from production lands and associated facilities to all wetlands, streams, drainage ditches, or other conveyances. Riparian and wetland areas shall be protected in a manner that maintains their essential functions,

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

including temperature and microclimate control, filtration of sediment and other pollutants, nutrient cycling, woody debris recruitment, groundwater recharge, streambank stabilization, and flood peak attenuation and flood water storage.

**All cultivation activities on the Dischargers property are located beyond 50 feet from any Class III watercourse and 100 feet of any Class I or II watercourse. The fill slope of the cultivation area is showing signs of sediment delivery to the head of the Class III watercourse below. Mitigation measures for this are stated under Standard Condition 1.A. This standard condition is not being met at this time.**



**4. Spoils Management (Compliance: Y/ N)**

- a. Spoils<sup>5</sup> shall not be stored or placed in or where they can enter any surface water.
- b. Spoils shall be adequately contained or stabilized to prevent sediment delivery to surface waters.
- c. Spoils generated through development or maintenance of roads, driveways, earthen fill pads, or other cleared or filled areas shall not be sidecast in any location where they can enter or be transported to surface waters.

**There are currently no spoils on the property. The Discharger will ensure that that no spoils are in a location where they can enter or be transported to surface waters. This standard condition is being met at this time.**

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

- a. Size and scope of an operation shall be such that the amount of water used shall not adversely impact water quality and/or beneficial uses, including and in consideration with other water use by operations, instream flow requirements and/or needs in the watershed, defined at the scale of a HUC-12<sup>6</sup> watershed or at a smaller hydrologic watershed as determined necessary by the Regional Water Board Executive Officer.
- b. Water conservation measures shall be implemented. Examples include use of rainwater catchment systems or watering plants with a drip irrigation system rather than with a hose or sprinkler system.
- c. For Tier 2 Dischargers, if possible, develop off-stream storage facilities to minimize surface water diversion during low flow periods.

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

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

- d. Water is applied using no more than agronomic rates.<sup>7</sup>
- e. Diversion and/or storage of water from a stream should be conducted pursuant to a valid water right and in compliance with reporting requirements under Water Code section 5101.
- f. Water storage features, such as ponds, tanks, and other vessels shall be selected, sited, designed, and maintained so as to insure integrity and to prevent release into waters of the state in the event of a containment failure.

**In compliance at this time. The Discharger currently has approximately 937.5 ft<sup>2</sup> of cultivation soil area in one hundred and fifty 300-gallon pots. The primary source of water for cultivation is sourced from a well drilled by Fisch Drilling at a depth of 120 feet that produces adequate water supply for the entire cultivation season. An estimated 135,000-gallons are used during the entire cultivation season. Current storage on the property for cultivation consists of two 3,500-gallon water storage tanks totaling 7,000-gallons. All water storage structures are stored in secure locations. Water is applied by garden hose. There was no sign that water conservation measures were used during the cultivation season. The Discharger shall implement water conservation measures according to the Water Board's water conservation better management practices 102, 106, 114 – 117, 119, 120, and 122; or the Discharger's own preferred water conservation measures. The Discharger shall install float-valves on appropriate storage tanks to prevent overflow. The landowner shall install a water meter this year to better document usage. There is no need to alter the water usage at this time.**

**6. Irrigation Runoff (Compliance: Y/ N)**

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

**There are currently no signs of irrigation runoff on the property. Water resources are being used at standard agronomic rates. This standard condition is being met at this time.**

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

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

- a. Fertilizers, potting soils, compost, and other soils and soil amendments shall be stored in locations and in a manner in which they cannot enter or be transported into surface waters and such that nutrients or other pollutants cannot be leached into groundwater.
- b. Fertilizers and soil amendments shall be applied and used per packaging instructions and/or at proper agronomic rates.
- c. Cultivation areas shall be maintained so as to prevent nutrients from leaving the site during the growing season and post-harvest.

**Fertilizers and soil amendments are stored in a storage shed located above the cultivation area. The Discharger will ensure that fertilizers and soil amendments are stored so that they cannot enter or be transported into surface waters and such that nutrients or other pollutants cannot be leached into groundwaters. This standard condition is being met at this time.**

**8. Pesticides/Herbicides (Compliance: Y/ N)**

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

**The Discharger states that he does not use pesticides or herbicides. The Discharger will ensure that any pesticides and herbicides are placed, used, and stored in a manner that ensures that they will not enter or be released into surface or ground waters. This standard condition is being met at this time.**

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

- a. Petroleum products and other liquid chemicals, including but not limited to diesel, biodiesel, gasoline, and oils shall be stored so as to prevent their spillage, discharge, or seepage into receiving waters. Storage tanks and containers must be of suitable material and construction to be compatible with the substance(s) stored and conditions of storage such as pressure and temperature.
- b. Above ground storage tanks and containers shall be provided with a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation.
- c. Dischargers shall ensure that diked areas are sufficiently impervious to contain discharged chemicals.
- d. Discharger(s) shall implement spill prevention, control, and countermeasures (SPCC) and have appropriate cleanup materials available onsite.
- e. Underground storage tanks 110 gallons and larger shall be registered with the appropriate County Health Department and comply with State and local requirements for leak detection, spill overflow, corrosion protection, and insurance coverage.

**Currently the Discharger has no bulk fuel storage located on the property. Oil bottles and small canisters were found without caps around the generator site. Secondary containment for any un-sealed chemical container will require secondary containment. The Discharger will ensure that petroleum products and other liquid chemicals shall be stored so as to prevent their spillage, discharge, or seepage into receiving waters. This standard condition is currently not being met at this time.**

**Map Point 2 – Oil bottles and small gas canisters were found without caps around the generator site. (Secondary containment for any un-sealed chemical container will require secondary containment.)**

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

Cultivation-related wastes including, but not limited to, empty soil/soil amendment/fertilizer/pesticide bags and containers, empty plant pots or containers, dead or harvested plant waste, and spent growth medium shall, for as long as they remain on the site, be stored<sup>8</sup> at locations where they will not enter or be blown into surface waters, and in a manner that ensures that residues and pollutants within those materials do not migrate or leach into surface water or ground waters.

**No cultivation related wastes found to be placed or treated outside the guidelines of the Standard Conditions. The Discharger will ensure that cultivation-related wastes continue to be stored on site in a location that will not enter, migrate, leach or be blown into surface waters. This standard condition is being met at this time.**

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

- a. Disposal of domestic sewage shall meet applicable County health standards, local agency management plans and ordinances, and/or the Regional Water Board's Onsite Wastewater Treatment System (OWTS) policy, and shall not represent a threat to surface water or groundwater.
- b. Refuse and garbage shall be stored in a location and manner that prevents its discharge to receiving waters and prevents any leachate or contact water from entering or percolating to receiving waters.
- c. Garbage and refuse shall be disposed of at an appropriate waste disposal location.

*Dry Shed*  
All trash is collected and stored on-site in the shop building for future disposal. The Discharger shall continue to ensure that the storage site has containment features to prevent the wastes from entering or being blown into surface waters, and in a manner, that ensures that residues and pollutants within those materials do not migrate or leach into surface water or groundwaters. The Discharger will ensure that garbage and refuse shall be disposed of at an appropriate disposal location.

*#2 Dry Shed*  
Currently domestic sewage is disposed of in a sawdust composting outhouse next to the steel shop building south of the cultivation area. The Discharger then takes the dry composted waste and places it in a compost pile located north of the cultivation site. The Discharger will construct an approved compost toilet or make sure that the existing one is up to code or brought up to code. The Discharger will ensure that the disposal of domestic sewage meets applicable County health standards, local agency management plans and ordinances, and/or the Regional Water Board's Onsite Wastewater Treatment System (OWTS) policy, and shall not represent a threat to surface water or groundwater. This standard condition is not being met at this time.

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

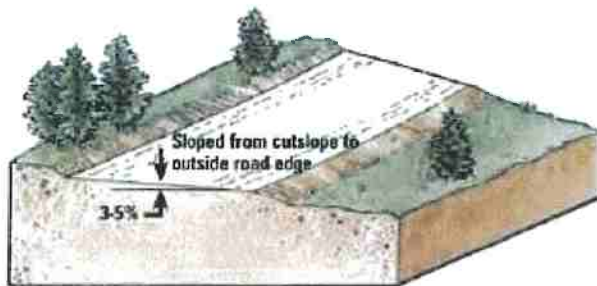
**12. Remediation/Cleanup/Restoration** Remediation/cleanup/restoration activities may include, but are not limited to, removal of fill from watercourses, stream restoration, riparian vegetation planting and maintenance, soil stabilization, erosion control, upgrading stream crossings, road outcropping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

**Mitigation measures are listed in the Water Resource Protection Plan and also noted above in the document. This standard condition is being met at this time.**

# Attachments



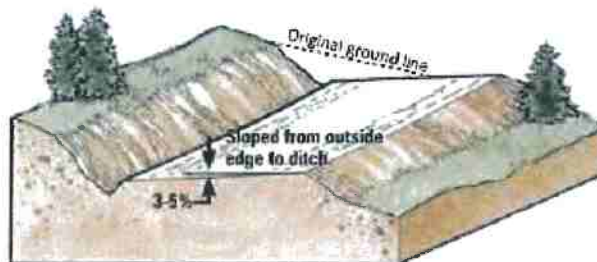
### Outsloped



Outsloped roads are used:

- where road grades are gentle or moderate ( $\leq 8-12\%$ )
- to minimize construction costs
- where cutslopes are dry
- with an inside ditch, where cutbanks are wet
- where road surface drainage is to be dispersed
- always in concert with rolling dips

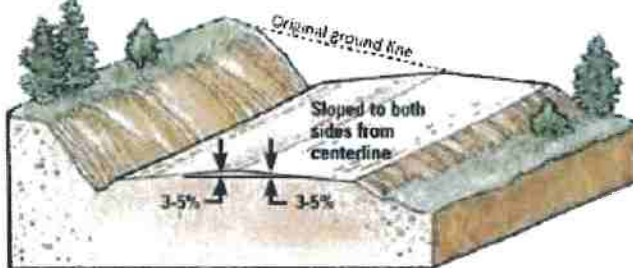
### Inslope



Inslope roads are used:

- where road grades are moderate to steep ( $\geq 8-12\%$ )
- where road grades are moderate or steep and slippery (muddy, snowy or icy)
- where cutbanks are wet and ditches are used
- where ditches can be maintained
- where fillslopes are unstable or highly erodible

### Crowned



Crowned roads are used:

- where road grades are gentle or moderate ( $\leq 8-12\%$ )
- where ditches are maintained and can be drained frequently
- where roads are wide and two way traffic is common
- where commercial or high traffic use is common
- where slippery or icy conditions are common

**FIGURE 27.** Road surface shapes include outsloped, insloped and crowned. The diagram depicts an outsloped road with no ditch (top), an insloped road with the inside ditch (center), and a crowned road with an inside ditch (bottom). Outsloped road shapes are generally preferred because of lower construction and maintenance costs. Where cutbanks are wet with spring flow an outsloped road shape can be combined with an inside ditch. Note that insloped and crowned roads generally require more hillslope cutting and have higher cutbanks than outsloped roads because of the extra width needed for a ditch (Modified from: Adams and Storm, 2011).



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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.

**FIGURE 28.** Well built, outsloped road displaying minimum cut, smooth free draining surface, and no outside berm. The road contours the topography and its rolling grade and rolling dips disperse surface runoff.



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TABLE 10. Outsloping "pitch" for roads up to 8% grade<sup>1</sup>

Road grade	Outslope "pitch" for unsurfaced roads	Outslope "pitch" for surfaced roads
≤ 4%	3/8" per foot	1/2" per foot
5%	1/2" per foot	5/8" per foot
6%	5/8" per foot	3/4" per foot
7%	3/4" per foot	7/8" per foot
≥ 8%	1" per foot	1 1/4" per foot

<sup>1</sup>California Department of Forestry and Fire Protection (2008)

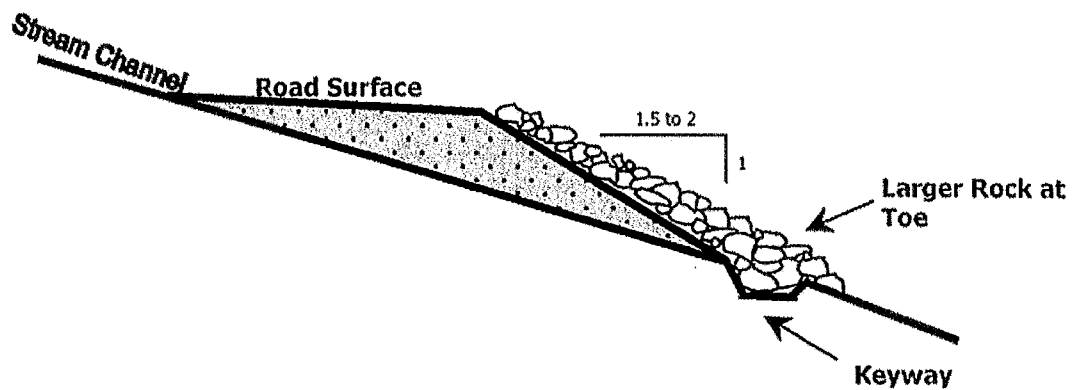
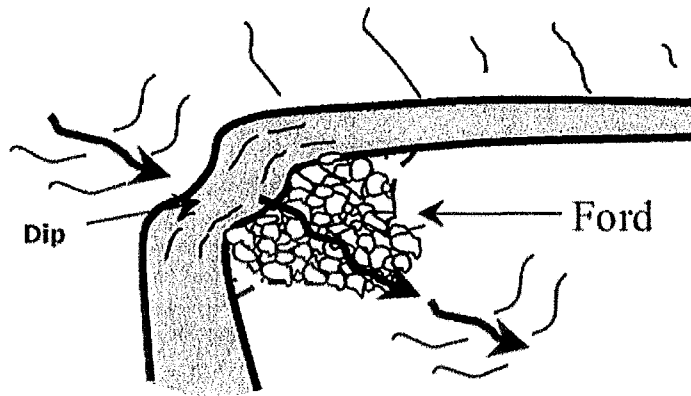
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**FIGURE 120.** This armored fill crossing of a steep, ephemeral stream was constructed to provide a low maintenance crossing. The crossing has been deeply dipped to reduce the volume of road fill and to eliminate the potential for stream diversion. The fill slope has been heavily armored through the axis of the crossing to contain flood flows and prevent down-cutting. Armored fills cannot be used on fish bearing streams.

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**FORD:** A large dip is graded into the road at the axis of the stream channel. The outside fill face is dished out to form a spillway with large rock. On large watercourses, rock is keyed several feet into firm native soils. The road surface is rocked with 6" of minus rock.







**FIGURE 121D.** Well graded rock armor is then backfilled into the structure and spread across the breadth of the U-shaped stream crossing, and about one-third the way up the roadbed, so that streamflow will only flow over or come in contact with resistant armor material. The armor must be spread and compacted across the design width of the expected flood flow channel width so peak flows will not flank the armored structure.



**FIGURE 121E.** Two weeks after this armored fill was constructed, a storm flow event occurred and the structure maintained its function and integrity. The road approaches had not yet been compacted or surfaced with road rock.



**FIGURE 121F.** The same armored fill as it appeared after the first winter flood flows. No maintenance was required to reopen the road. It is also clear that no stream diversion is possible at this stream crossing site, and the volume of fill within the crossing has been reduced to the minimum amount needed to maintain a relatively smooth driving surface on this low volume road.

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



Attached Photo's



Picture 1: Primary cultivation area. All photos are dated August 17, 2016.



Picture 2: Light deprivation greenhouse located above the cultivation area.





←  
No  
Dark  
sky  
standards

Picture 3: Nursery area located above the cultivation area.



Picture 4: Source of water for the property, a 120 foot well drilled by Fisch Drilling.





Picture 5: Road Point 3, an armored fill/rocked ford will be placed here to upgrade the degraded existing one.



Picture 6: Road Point 4, the fill slope will be stabilized by placing rock on the inside corner and spreading seed to vegetate the rest of the fill slope.



Picture 7: Road Point 5, the Discharger will apply road rock to the three-way intersection to secure the roads surface and slope.



Picture 8: Road Point 14, the Discharger will out-slope the road around the base of the cultivation site fill slope to the armored fill/rocked ford at Road Point 3 and resurface the road with road rock.





Picture 9: Looking up at Map Point 1 from Road Point 3.



Picture 10: Looking up at Map Point 1 from the road below.



Picture 10: Looking down at the eroding fill slope below Map Point 1.



Picture 11: Looking down the fill slope from Map Point 1 showing the beginning of erosion rilling and gullyng.





Picture 12: Road Point 9, Class II watercourse crossing with a 30-inch diameter corrugated metal pipe. This culvert has a large branch across the inlet. Removal of this debris is recommended before winter to prevent further accumulation of debris resulting in severe plugging of the culvert.



Picture 13: Road Point 12, Class III watercourse crossing with a 24-inch diameter corrugated metal pipe. This culvert is beginning to plug with native rock material from around the inlet. Removal of this debris is recommended before winter to prevent further accumulation of debris resulting in severe plugging of the culvert.



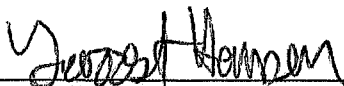
Picture 14: Road Point 13, Class III watercourse crossing with a 24-inch diameter corrugated metal pipe. This culvert is beginning to plug with small sticks and branches. Removal of this debris is recommended before winter to prevent further accumulation of debris resulting in severe plugging of the culvert.



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

**Prepared by Timberland Resource Consultants**

1. This Water Resource Protection Plan has been prepared for the property within APN 522-031-007 in Humboldt County, at the request of the Client.
2. Timberland Resource Consultants does not assume any liability for the use or misuse of the information in this Water Resource Protection Plan.
3. The information is based upon conditions apparent to Timberland Resource Consultants at the time the inspection was conducted. Changes due to land use activities or environmental factors occurring after this inspection, have not been considered in this Water Resource Protection Plan.
4. Maps, photos, and any other graphical information presented in this report are for illustrative purposes. Their scales are approximate, and they are not to be used for locating and establishing boundary lines.
5. The conditions presented in this Water Resource Protection Plan may differ from those made by others or from changes on the property occurring after the inspection was conducted. Timberland Resource Consultants does not guarantee this work against such differences.
6. Timberland Resource Consultants did not conduct an investigation on a legal survey of the property.
7. Persons using this Water Resource Protection Plan are advised to contact Timberland Resource Consultants prior to such use.
8. Timberland Resource Consultants will not discuss this report or reproduce it for anyone other than the Client named in this report without authorization from the Client.



\_\_\_\_\_  
Forrest Hansen  
Timberland Resource Consultants





# WRPP - Mitigation Report

180101020102TRC245

Unique Point	UTM 10 NAD 83	Road Type	Mitigation Planned	Monitor	1600	Standard Conditions	Treatment Priority	Date Completed
MP 1	435981 4535313		X	X		A.1.	Prior to 10/15/17 pending approval of applicable permits	
Current Condition: Concentrated runoff coming from the cultivation site area is causing erosion of the fill slope down to Road Point 3 and Road Point 14.						Prescribed BMP: The discharger will also in-slope the entire cultivation flat to prevent surface flows from traveling over the fill slopes edge and traveling down the fill slope to Road Points 3 and 14. The discharger will seed and mulch the fill slope of the cultivation site.		
Unique Point	UTM 10 NAD 83	Road Type	Mitigation Planned	Monitor	1600	Standard Conditions	Treatment Priority	Date Completed
MP 2	436016 4535337		X	X		A.9.a.	Prior to 10/15/17 pending approval of applicable permits	
Current Condition: Oil bottles and small gas canisters were found without caps around the generator site.						Prescribed BMP: Any un-sealed chemical container will require secondary containment.		
Unique Point	UTM 10 NAD 83	Road Type	Mitigation Planned	Monitor	1600	Standard Conditions	Treatment Priority	Date Completed
RP 1	436151 4534947	Permanent Rock Road		X		A.1.		
Current Condition: A rolling dip with a lead out ditch is located here.						Prescribed BMP: The discharger will maintain this drainage feature.		
Unique Point	UTM 10 NAD 83	Road Type	Mitigation Planned	Monitor	1600	Standard Conditions	Treatment Priority	Date Completed
RP 2	426096 4535067	Permanent Rock Road		X		A.2.		
Current Condition: Class II watercourse crossing with an 18-inch corrugated metal pipe. Inlet and outlet are rock armored with no signs of scour, down cutting, or erosion of the fill slope. The road is in good condition and shows no sign of erosion from culvert plugging and overtopping.						Prescribed BMP: The culvert will be monitored for plugging of debris. Debris will be removed if either the debris is plugging the culvert or if it poses a future risk of plugging.		
Unique Point	UTM 10 NAD 83	Road Type	Mitigation Planned	Monitor	1600	Standard Conditions	Treatment Priority	Date Completed
RP 3	435945 4535306	Permanent Rock Road	X	X		A.1.	Prior to 11/15/17 pending approval of applicable permits	
Current Condition: A road crossing over a head of a Class III watercourse is located here. Concentrated hillslope runoff originating from the cultivation area flat is saturating the road resulting in rutting of the road and large amounts of sediment discharge.						Prescribed BMP: The discharger will install an armored fill/rocked ford crossing at this location to secure the road surface and to prevent sediment delivery to the Class III watercourse below.		
Unique Point	UTM 10 NAD 83	Road Type	Mitigation Planned	Monitor	1600	Standard Conditions	Treatment Priority	Date Completed
RP 4	435866 4535343	Permanent Rock Road	X	X		A.1.	Prior to 10/15/18 pending approval of applicable permits	
Current Condition: Concentrated road surface runoff is causing erosion of the fill slope.						Prescribed BMP: The discharger will maintain the fill slope by placing stabilizing rock on the inside corner and spreading seed to vegetate the rest of the fill slope.		
Unique Point	UTM 10 NAD 83	Road Type	Mitigation Planned	Monitor	1600	Standard Conditions	Treatment Priority	Date Completed
RP 5	435851 4535339	Permanent Rock Road	X	X		A.1.	Prior to 10/15/18 pending approval of applicable permits	
Current Condition: Concentrated road surface runoff is eroding the road surface.						Prescribed BMP: The discharger will apply road rock to the three-way intersection, 20 feet of road surface leading up the intersection and 20 feet past the erosion site in the direction of the neighbor's property line to secure the roads surface and slope.		



**Timberland  
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Consultants**

# WRPP - Mitigation Report

180101020102TRC245

Unique Point	UTM 10 NAD 83	Road Type	Mitigation Planned	Monitor	1600	Standard Conditions	Treatment Priority	Date Completed
RP 6	435846 4535251	Permanent Rock Road		X		A.2.		
Current Condition: Class III watercourse crossing with an 18-inch corrugated metal pipe. Inlet and outlet are rock armored with no signs of scour, down cutting, or erosion of the fill slope. The road is in good condition and shows no sign of erosion from culvert plugging and overtopping.						Prescribed BMP: The culvert will be monitored for plugging of debris. Debris will be removed if either the debris is plugging the culvert or if it poses a future risk of plugging.		
Unique Point	UTM 10 NAD 83	Road Type	Mitigation Planned	Monitor	1600	Standard Conditions	Treatment Priority	Date Completed
RP 7	435864 4535401	Permanent Rock Road		X		A.1.		
Current Condition: 18-inch diameter corrugated plastic pipe ditch relief culvert. Inlet and outlet are rock armored with no signs of scour, down cutting, or erosion of the fill slope. The road is in good condition and shows no sign of erosion from culvert plugging and overtopping.						Prescribed BMP: The culvert will be monitored for plugging of debris. Debris will be removed if either the debris is plugging the culvert or if it poses a future risk of plugging.		
Unique Point	UTM 10 NAD 83	Road Type	Mitigation Planned	Monitor	1600	Standard Conditions	Treatment Priority	Date Completed
RP 8	435835 4535441	Permanent Rock Road		X		A.1.		
Current Condition: 18-inch diameter corrugated plastic pipe ditch relief culvert. Inlet and outlet are rock armored with no signs of scour, down cutting, or erosion of the fill slope. The road is in good condition and shows no sign of erosion from culvert plugging and overtopping.						Prescribed BMP: The culvert will be monitored for plugging of debris. Debris will be removed if either the debris is plugging the culvert or if it poses a future risk of plugging.		
Unique Point	UTM 10 NAD 83	Road Type	Mitigation Planned	Monitor	1600	Standard Conditions	Treatment Priority	Date Completed
RP 9	435832 4535511	Permanent Rock Road	X	X		A.2.	Prior to 10/15/17 pending approval of applicable permits	
Current Condition: Class III watercourse crossing with an 48-inch corrugated metal pipe. Inlet and outlet are rock armored with no signs of scour, down cutting, or erosion of the fill slope. The road is in good condition and shows no sign of erosion from culvert plugging and overtopping.						Prescribed BMP: The culvert will be monitored for plugging of debris. Debris will be removed if either the debris is plugging the culvert or if it poses a future risk of plugging. This culvert has a large branch across the inlet. Removal of this debris is recommended before winter to prevent further accumulation of debris resulting in severe plugging of the culvert.		
Unique Point	UTM 10 NAD 84	Road Type	Mitigation Planned	Monitor	1600	Standard Conditions	Treatment Priority	Date Completed
RP 10	435807 4535521	Permanent Rock Road		X		A.2.		
Current Condition: Class III watercourse crossing with an 36-inch corrugated metal pipe. Inlet and outlet are rock armored with no signs of scour, down cutting, or erosion of the fill slope. The road is in good condition and shows no sign of erosion from culvert plugging and overtopping.						Prescribed BMP: The culvert will be monitored for plugging of debris. Debris will be removed if either the debris is plugging the culvert or if it poses a future risk of plugging.		
Unique Point	UTM 10 NAD 85	Road Type	Mitigation Planned	Monitor	1600	Standard Conditions	Treatment Priority	Date Completed
RP 11	435715 4535546	Permanent Rock Road		X		A.2.		
Current Condition: Class III watercourse crossing with an 18-inch corrugated metal pipe. Inlet and outlet are rock armored with no signs of scour, down cutting, or erosion of the fill slope. The road is in good condition and shows no sign of erosion from culvert plugging and overtopping.						Prescribed BMP: The culvert will be monitored for plugging of debris. Debris will be removed if either the debris is plugging the culvert or if it poses a future risk of plugging.		



**Timberland  
Resource  
Consultants**

## WRPP - Mitigation Report

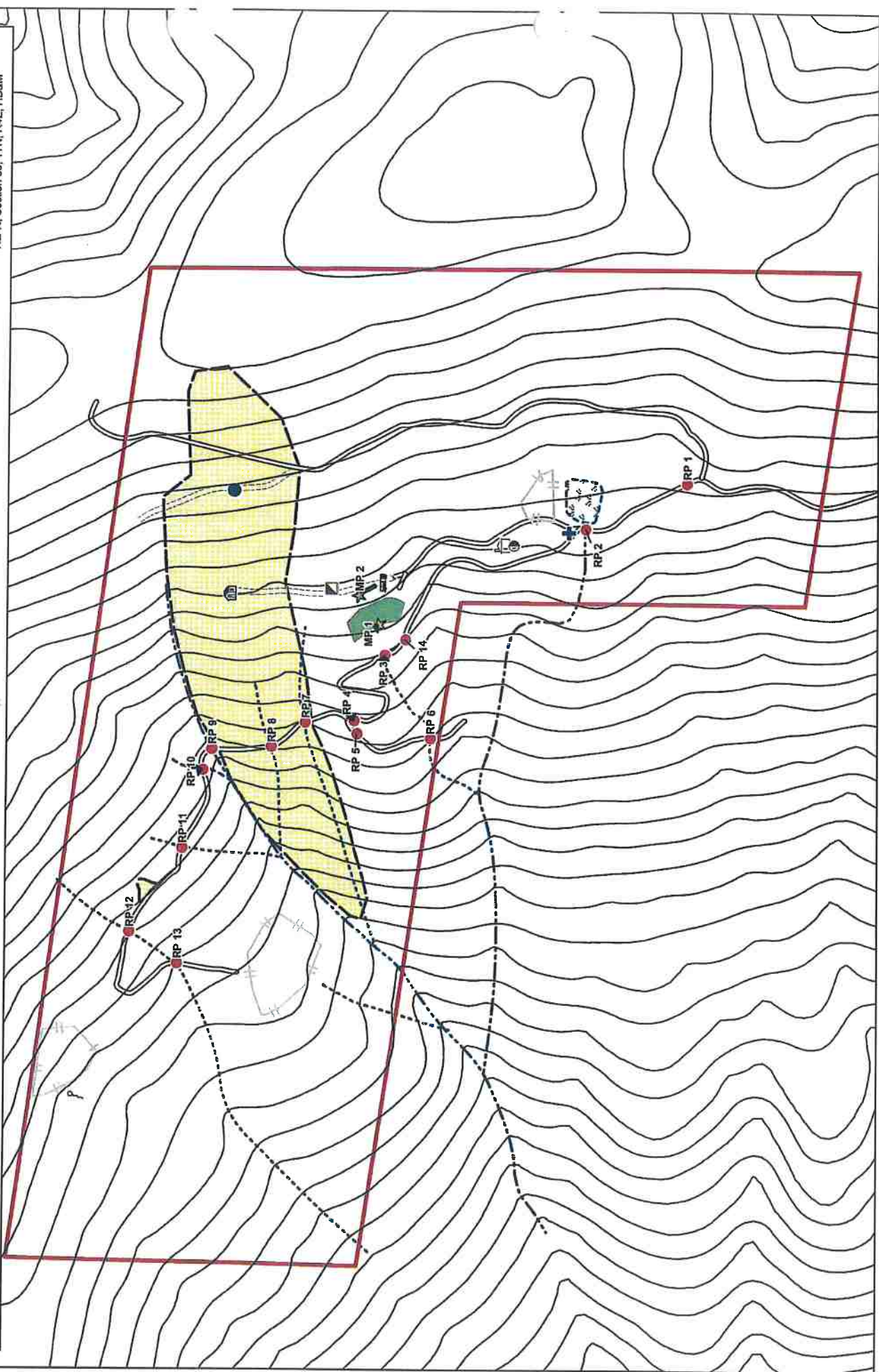
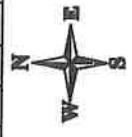
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Unique Point	UTM 10 NAD 86	Road Type	Mitigation Planned	Monitor	1600	Standard Conditions	Treatment Priority	Date Completed
RP 12	435615 4535608	Permanent Rock Road	X	X		A.2.	Prior to 10/15/17 pending approval of applicable permits	
<p><b>Current Condition:</b> Class III watercourse crossing with an 24-inch corrugated metal pipe. Inlet and outlet are rock armored with no signs of scour, down cutting, or erosion of the fill slope. The road is in good condition and shows no sign of erosion from culvert plugging and overtopping.</p>						<p><b>Prescribed BMP:</b> The culvert will be monitored for plugging of debris. Debris will be removed if either the debris is plugging the culvert or if it poses a future risk of plugging. This culvert is beginning to plug with native rock material from around the inlet. Removal of this debris is recommended before winter to prevent further accumulation of debris resulting in plugging of the culvert.</p>		
Unique Point	UTM 10 NAD 87	Road Type	Mitigation Planned	Monitor	1600	Standard Conditions	Treatment Priority	Date Completed
RP 13	435578 4535551	Permanent Rock Road	X	X		A.2.	Prior to 10/15/17 pending approval of applicable permits	
<p><b>Current Condition:</b> Class III watercourse crossing with an 24-inch corrugated metal pipe. Inlet and outlet are rock armored with no signs of scour, down cutting, or erosion of the fill slope. The road is in good condition and shows no sign of erosion from culvert plugging and overtopping.</p>						<p><b>Prescribed BMP:</b> The culvert will be monitored for plugging of debris. Debris will be removed if either the debris is plugging the culvert or if it poses a future risk of plugging. This culvert is beginning to plug with small sticks and branches. Removal of this debris is recommended before winter to prevent further accumulation of debris resulting in plugging of the culvert. This standard condition is not being met at this time.</p>		
Unique Point	UTM 10 NAD 87	Road Type	Mitigation Planned	Monitor	1600	Standard Conditions	Treatment Priority	Date Completed
RP 14	435963 4535282	Permanent Rock Road	X	X		A.1.	Prior to 10/15/18 pending approval of applicable permits	
<p><b>Current Condition:</b> Concentrated road surface and hillslope runoff, originating from the cultivation site flat and the fill slope, is eroding the road surface and road fill slope.</p>						<p><b>Prescribed BMP:</b> The discharger will out-slope the road around the base of the cultivation site fill slope to the armored fill/rocked ford at Road Point 3 and resurface the road with road rock.</p>		

# 180101020102TRC245 Site Map

- Property Boundary
- Permanent Rock Road
- Closed Road
- Greenhouse
- Cultivation Area
- Water Storage
- Well
- Spring
- Class II Watercourse
- Class III Watercourse
- Wetland
- Map Point
- Road Point
- Unstable Area
- Conversion Area
- Outhouse
- Waster Compost
- Camper Trailer
- Shop
- Cabin

Lord-Ellis Summit 7.5' - 80' contours  
 Map Scale 1" = 500'  
 Map Date 12/12/2016  
 NE 1/4, Section 30, T7N, R4E, HB&M














# 180101020102TRC245 Site Map

-  Property Boundary
-  Greenhouse
-  Cultivation Area
-  Permanent Rock Road
-  Closed Road

-  Water Storage
-  Well
-  Spring
-  Class II Watercourse
-  Class III Watercourse
-  Wetland

-  Map Point
-  Road Point
-  Unstable Area
-  Conversion Area

-  Outhouse
-  Waster Compost
-  Camper Trailer
-  Shop
-  Cabin



2016 NAMP DOC  
Map Scale 1" = 500'  
Map Date 12/12/2016  
NE 1/4, Section 30, T7N, R4E, H88M

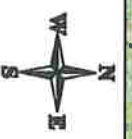




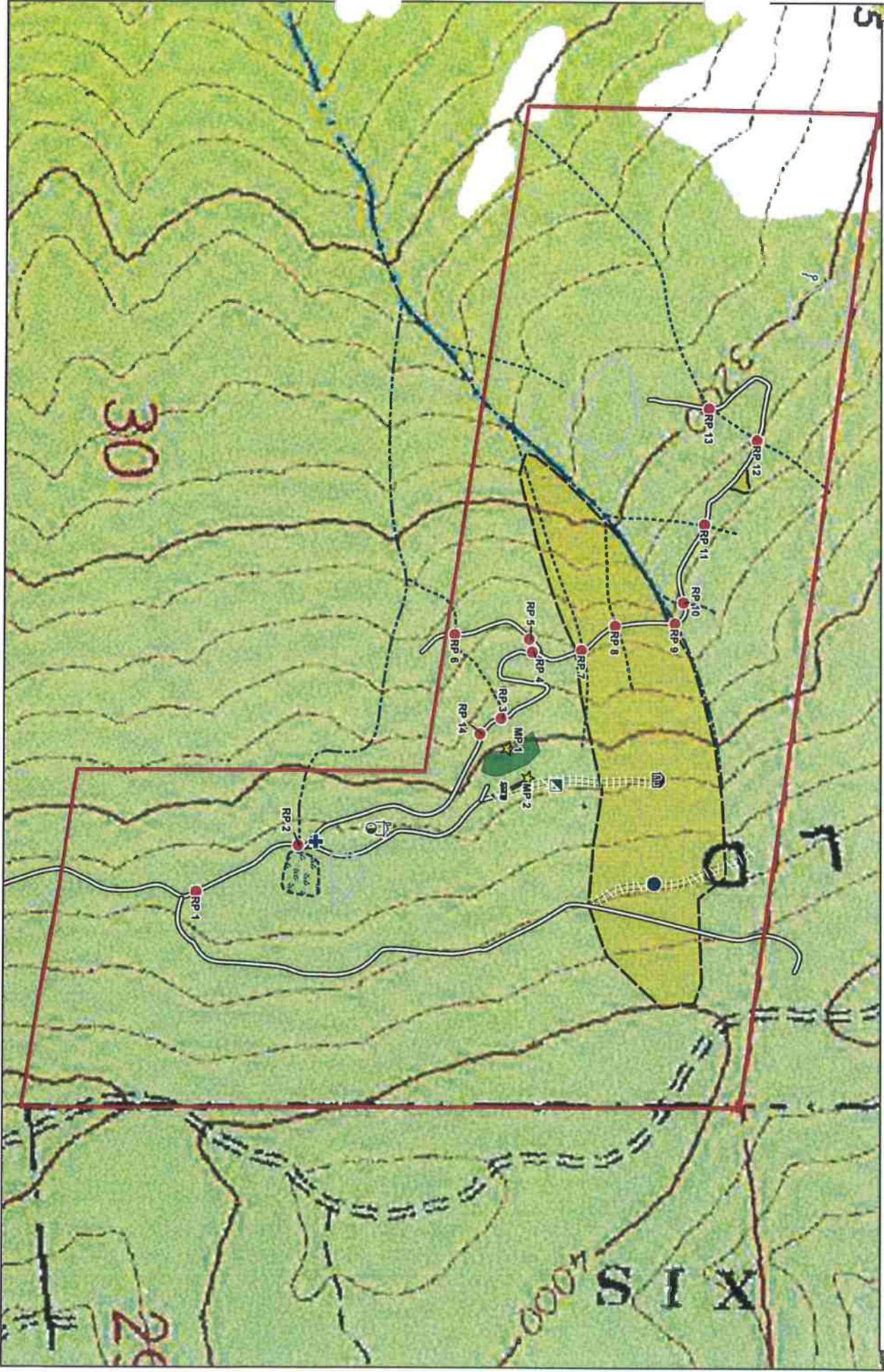
# 180101020102TRC245

## Site Map

-  Property Boundary
-  Greenhouse
-  Cultivation Area
-  Water Storage
-  Well
-  Spring
-  Class II Watercourse
-  Class III Watercourse
-  Wetland
-  Map Point
-  Road Point
-  Unstable Area
-  Conversion Area
-  Outhouse
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-  Camper Trailer
-  Shop
-  Cabin



USGS Lord-Ellis Summit 7.5' - 80' contours  
 Map Scale 1" = 500'  
 Map Date 12/12/2016  
 NE 1/4, Section 30, 17N, R4E, H8&M





180101020102TRC243

Site Map

 Property Boundary



USGS Lord-Ellis Summit 7.5' - 80' contours  
Map Scale 1 = 3,000'  
Map Date 12/12/2016  
NE 1/4, Section 30, T7N, R4E, H84M

