

REVISED
3-14-17

180102111206TRC160

Water Resource Protection Plan

APN 316-064-011

WDID# 1B161204CHUM

TRC# 180102111206TRC160

Submitted to:

Tim Dower & Shannon Hughes

Prepared by:

Timberland Resource Consultants

165 South Fortuna Blvd

Fortuna, CA 95540

2/28/2017

Purpose

This Water Resource Protection Plan (WRPP) has been prepared on behalf of the property owner, Tim Dower & Shannon Hughes, for APN 316-064-011, by agreement and in response to the California Water Code Section 13260(a), which requires that any person discharging waste or proposing to discharge waste within any region that could affect the quality of the waters of the state, other than into a community sewer system, shall file with the appropriate regional water board a Report of Waste Discharge (ROWD) containing such information and data as may be required by the Regional Water Board. The Regional Water Board may waive the requirements of Water Code section 13260 for specific types of discharges if the waiver is consistent with the Basin Plan and in the public interest. Any waiver is conditional and may be terminated at any time. A waiver should include monitoring requirements to verify the adequacy and effectiveness of the waiver's conditions. Order R1-2015-0023 conditionally waives the requirement to file a ROWD for discharges and associated activities described in finding 4.

Scope of Report

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

Methods

The methods used to develop this WRPP include both field and office components. The office component consisted of aerial photography review and interpretation, existing USGS quad map review, GIS mapping of field data, review of on-site photography points, streamflow calculations, and general planning. The field component included identifying and accurately mapping all watercourses, wet areas, and wetlands located downstream of the cultivation areas, associated facilities, and all appurtenant 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. 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 54-acre parcel located on Highway 299. The property is an established home site with a residence, storage sheds, and an agriculture barn. There is one Class II watercourse on the property with Willow Creek running through the lower northwestern boundary of the property. The Class II watercourse is a tributary to Willow Creek. The property is located in the SW ¼ of Section 10, Township 6N, Range 4E, Humboldt Base & Meridian of the USGS Willow Creek 7.5' quadrangle map.

Monitoring Plan

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

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

Monitoring Plan Reporting Requirements

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

Assessment of Standard Conditions

Assessment of Standard Conditions consisted of field examinations on 1/31/2017. The examination evaluated areas near, and areas with the potential to directly impact, watercourses for sensitive conditions including, but not limited to, existing and proposed 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 Discharger's

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.

There are rills and gullies located between Ditch Relief Culvert 2 (DRC 2) and DRC 3; and above DRC 3 for about 350' up the road's gradient. Rills and gullies are forming on the road's surface due to failing inside ditches, poor in-sloping of the road, and no drainage facilities to direct surface flows into the inside ditch. The Discharger shall clear the inside ditch, install water breaks, and in-slope the road to direct surface flows into the inside ditch.

- 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.

Inside ditches on the property are draining too much road surface and hillslope run-off resulting in erosion at their outlet and flow paths. To relieve inside ditch flows to DRC 1, the Discharger shall install a rolling dip at Road Point 1 (RP 1).

Road Point 1 – Inside ditch flows are over-whelming the ditch relief culvert at DRC 1. The Discharger shall install a rolling dip per attached speciation's to reduce flows reaching DRC 1.

Road Point 2 – 12” diameter drainage ATV crossing that is plugged. The Discharger shall remove the crossing and any fill within the drainage and if further use of the crossing is needed the Discharger shall install a small rock ford per attached specifications.

Between DRC 2 & DRC 3 & ~350’ above DRC 3 – Rills and gullies are forming on the road’s surface from failing inside ditches, poor in sloping of the road and no drainage facilities to direct surface flows into the inside ditch. The Discharger shall clear the inside ditch, install water breaks on the road to direct surface flows into the inside ditch so that there are no surface flows on the roads surface.

Ditch Relief Culvert 1 –12” diameter inside ditch relief culvert that is plugged where surface flows are bypassing the inlet, resulting in severe erosion of the roads surface. The Discharger shall replace the ditch relief culvert with an 18” diameter ditch relief culvert and rock armor the inlet and outlet per attached specifications.

Ditch Relief Culvert 2 –12” diameter inside ditch relief culvert with a makeshift trash rack that has become plugged with debris. The Discharger shall clear the trash rack the culvert inlet and rock armor the inlet and outlet per attached specifications. The Discharger shall also install an appropriate trash rack consisting of stakes placed at the inlet of the culvert that shall be cleared regularly before the wet season. If the Discharger cannot clear and remove the makeshift trash rack and culvert inlet, the Discharger shall replace the 12” diameter DRC with an 18” diameter ditch relief culvert per attached specifications.

Ditch Relief Culvert 3 – 12” inlet/18” outlet diameter ditch relief culvert with a damaged inlet. A 6” flex pipe coming from an old drainage ditch is spliced into the 12” ditch relief culvert pipe. The Discharger shall remove the damaged 12” diameter culvert inlet and rock armor the inlet and outlet per attached specifications. If the Discharger cannot remove the damaged inlet, or the 12” or 18” diameter culvert is plugged, crushed or damaged beyond repair, the Discharger shall replace the ditch relief culvert with an 18” diameter ditch relief culvert per attached specifications.

- 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.

Physical reconnaissance of the property revealed no active unstable areas. There are no available Geomorphic Features Map’s for the USGS Willow Creek 7.5’ quadrangle map.

- 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

connected¹, as feasible, from surface waters, including wetlands, ephemeral, intermittent and perennial streams.

Roads, clearings, fill prisms, and terraced areas are not hydrologically connected to wetlands, ephemeral, intermittent or perennial streams.

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

Ditch relief drains, rolling dip outlets, and road pad or terrace surfaces 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.

No stockpiled construction materials are on the property.

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

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

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

² 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.³

Stream Crossing 1 – Class II watercourse with an 18” diameter culvert inlet and a 36” diameter outlet. The inlet on the 36” diameter CMP culvert is smashed and the previous landowner placed an 18” diameter CMP culvert within the inlet of the 36” diameter culvert. The culvert is undersized for a 100-year storm. The crossings estimated 100-year storm flow is approximately 132-cfs. The Discharger shall replace the stream crossing culverts with a minimum 42-inch diameter smooth walled culvert or a 48-inch diameter corrugated culvert per attached specifications with a minimum of a 5% grade.

The Rationale Method was used to determine for 100-year flood flow utilizing methods recommended in *“Designing Watercourse Crossings for Passage of 100-year Flood Flows, Wood, and Sediment”*. 2004 Peter Cafferata, Thomas Spittler, Michael Wopat, Greg Bundros, and Sam Flanagan. This report recommends that the rational method be limited to watersheds less than 100 acres. The 100-year Return-Period precipitation data is from: http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=ca

For determining culvert size, the Manning equation spreadsheet was used with a Hydraulic Radius = More than Half Full Flow. To account for a 0.67 HW/D ratio (ensure the culvert will accommodate the 100-year flow and debris load), the equation used 67% of pipe diameter as “depth of flow”. Slope variable was estimated in the field (conservatively) and the n-value was either 0.012 for smooth-walled pipes or 0.022 for corrugated pipes. The assumption for new pipe installations are smooth-walled pipes and culverts set to grade.

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

- a. For Tier 1 Discharger’s, cultivation areas or associated facilities shall not be located within 200 feet of surface waters. While 200 foot buffers are preferred for Tier 2 sites, at a minimum, cultivation areas and associated facilities shall not be located or occur within 100 feet of any Class I or II watercourse or within 50 feet of any Class III watercourse or wetlands. The Regional Water Board or its or its Executive Officer may apply additional or alternative⁴ conditions on enrollment, including site-specific riparian buffers and other BMPs beyond those identified in water resource protection plans to ensure water quality protection.

The Cultivation Site is located approximately 220’ away from a Class II watercourse.

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

Riparian buffers remain undisturbed throughout the property.

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

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

- c. Buffers shall be of sufficient width to filter wastes from runoff discharging from production lands and associated facilities to all wetlands, streams, drainage ditches, or other conveyances. Riparian and wetland areas shall be protected in a manner that maintains their essential functions, including temperature and microclimate control, filtration of sediment and other pollutants, nutrient cycling, woody debris recruitment, groundwater recharge, streambank stabilization, and flood peak attenuation and flood water storage.

No cultivation encroaches within the minimum buffer widths.

4. Spoils Management (Compliance: Y/ N)

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

Cultivation related soil spoils are kept in their beds and containers over winter. Extra soils are located off-site on a small landing above the AG barn. These soils are tarped top and bottom and are located away from any drainages. There are no spoil piles generated from development or maintenance of roads, driveways, earthen fill pads, or other cleared or filled areas where they can enter or be transported to surface waters.

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

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

This project consists of one cultivation site totaling 12,600 square feet of cultivation area.

- **Outdoor cultivation is on a gradual hillside with slopes less than 10% and adjoining natural hillslopes of less than 20%. The site consists of sixty-nine 6'x6' beds encompassing approximately 11,000 square feet.**

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

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

- **Greenhouse cultivation is on a graded pad with slopes less than 5% and adjoining natural hillslopes of less than 20%. The site consists of a 20' x 80' greenhouse.**

The Discharger stated that they used approximately 19,200 gallons of water during the 2017 cultivation season.

- 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.

There are signs that water conservation measures are used during the cultivation season. The Discharger uses drip line irrigation and topsoil mulching. The Discharger shall install water meters to better document usage.

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

The Discharger currently has approximately 20,600 gallons of dedicated water storage for cultivation. This amount of water storage is adequate to meet forbearance requirements, according to the Discharger.

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

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

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

The Discharger has an approved Lake and Stream Bed Alteration agreement with California Department of Fish and Wildlife for three diversion structures and jurisdictional activities in watercourses (1600-2015-0544-R1). The Discharger must follow the requirements of the approved Lake and Stream Bed Alteration agreement with California Department of Fish and Wildlife.

The Discharger is currently diverting and storing surface water without an appropriate water right. Because the surface water diversion is used for cultivation, the Discharger will need to apply for a Small Irrigation Use Registration once available. The Discharger cannot comply with Standard Condition A.5.e. until the Small Irrigation Use Registration program is completed and made available by the State Water Control Board or the Discharger discontinues use of surface water diversions for cultivation purposes and uses a well or rain catchment as the only source of water.

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

POD #1: Existing POD located on Sierra-Pacific Industries (SPI) property consisting of a perforated ¾-inch poly pipe with a screened inlet located in a Class II watercourse. This POD has been in use at this location for at least 15+ years for the two previous landowners. The inlet is plumbed via ¾-inch poly pipe to a 2,500-gallon plastic tank, which provides water to the residence.

POD #2: Proposed diversion located below POD #1. This diversion is located on the landowner's property. The landowners will be contacting SPI to discuss the continued use of POD #1. The previous landowners (Mike and Karen Briggs) had verbal permission to divert water from SPI land; however, the new owners will need a new permitted diversion site if SPI doesn't grant them permission to use the existing diversion. The new diversion would likely consist of same diversion infrastructure as POD #1. This notification only proposes to use POD #2 if POD #1 is not available.

POD #3: Proposed diversion in Willow Creek. The landowners are planning on farming a portion of their land located between Highway 299 and Willow Creek. The applicants have contacted Caltrans to request permission to run a small ¾-inch waterline through a culvert or storm water drain located underneath 299 on their property. Request was denied by Caltrans. Consequently, this notification includes POD #3. This diversion would serve an agricultural site (not cannabis) and the diversion works will consist of a small pump and storage tanks as needed.

- 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.

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

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

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

There are no signs of irrigation runoff within the cultivation sites.

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.

Fertilizers and soil amendments are stored in a storage shed next to the residence or in the residence. There were no potting soils or compost stored in locations in which they can enter or be transported into surface waters.

In order to remain in compliance with Standard Condition 7, the Discharger shall store all fertilizers, potting soils, composts, and soil amendments in sheds, covered areas, or tarped in a manner in which they cannot be transported to surface waters or such that nutrients or other pollutants cannot be leached into groundwater.

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

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

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

Cultivation areas were found to be maintained so as to prevent nutrients from leaving the site during the growing season and post-harvest. The Discharger stated that he plans to place waddles around the downslope perimeter of the outdoor cultivation area.

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

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

Pesticides shall be applied per specifications included in the packaging. The Discharger shall ensure any pesticides or herbicides used are placed, used, and stored in a manner that ensures that they will not enter or be released into surface or ground waters. We recommend the Discharger only use pesticides and/or herbicides 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.

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

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

There is no bulk fuel storage in use on the property at this time. Fuel canisters are being stored in the storage shed near the residence or under the carport attached to the residence.

In order to be in compliance, any portable fuel cans and drums that contain fuel shall be stored indoors within garages or storage sheds, or if stored outdoors be contained within a secondary containment vessels large enough for the entire capacity and be covered from precipitation. Fuel storage tanks shall also have secondary containment vessels large enough for the entire capacity and be covered from precipitation.

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

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

Cultivation related wastes are being stored in lidded trash cans underneath the residence carport where their contents cannot enter drainages that reach watercourses. The Discharger disposes organic plant waste material by burning it nearby the cultivation sites.

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

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

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

There is a permitted septic system attached to the residence located on the property. The Onsite Wastewater Treatment System (OWTS) serving the residence appears to be functioning properly. No evidence of dispersal field failure was detected when inspected. It is likely that this system will fall under Tier O (existing systems that are properly functioning and do not

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

meet the conditions of failing systems or otherwise require corrective action – as defined in the RWQCB OWTS Policy and Humboldt County Local Agency Management Plan).

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

The Discharger is storing refuse and garbage in lidded trash cans in a contained area next to storage sheds and cabins at the main residence area.

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

Garbage and refuse is regularly disposed of at the Trinity River Garden Center.

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 below in the Mitigation Report and also noted above in the document.

Mitigation Report (Identified Sites Requiring Remediation)

Unique Point(s)	Map Point Description	Associated Standard Condition	Temporary BMP	Permanent BMP	Priority for Action	Time Schedule for completion of Permanent BMP	Completion Date
RP 1	Inside ditch flows are overwhelming the ditch relief culvert at DRC 1	A.1. b.	N/A	Install a rolling dip per attached specifications to reduce flows reaching DRC 1	3	10/15/2018	
RP 2	Plugged 12" diameter drainage ATV crossing	A.1. b.	N/A	Remove the crossing and any fill within the drainage. If the crossing is to be used in the future, the Discharger shall install a small rocked ford	3	10/15/2018	
Between DRC 2 & DRC 3 & ~350' above DRC 3	Rills and gullies are forming on the road's surface from failing inside ditches, poor in sloping of the road and no drainage facilities to direct surface flows into the inside ditch	A.1. a.	N/A	Clear the inside ditch, install water breaks on the road to direct surface flows into the inside ditch so that there are no surface flows on the roads surface.	2	10/15/2017	
DRC 1	Plugged 12" diameter inside ditch relief culvert where surface flows are bypassing the inlet and running down the road resulting in erosion of the roads surface	A.1. b.	N/A	Replace the ditch relief culvert with an 18" diameter ditch relief culvert and rock armor the inlet and outlet per attached specifications.	2	10/15/2017	
DRC 2	Plugged trash rack on a 12" diameter inside ditch relief culvert inlet	A.1. b.	N/A	Remove debris from the trash rack and the culvert inlet rock armor the inlet and outlet per attached specifications. If the Discharger cannot remove the debris from the trash rack, the inlet, or the culvert is plugged, the Discharger shall replace the 12" diameter DRC with an 18" diameter ditch relief culvert per attached specifications.	3	10/15/2018	
DRC 3	12" inlet/18" outlet diameter ditch relief culvert with a damaged inlet. A 6" flex pipe coming from an old drainage ditch is spliced into the 12" ditch relief culvert pipe.	A.1. b.	N/A	Remove the damaged inlet and rock armor the inlet and outlet per attached specifications. If the Discharger cannot remove the damaged inlet, or the culvert is crushed or damaged beyond repair, the Discharger shall replace the ditch relief culvert with an 18" diameter ditch relief culvert per attached specifications.	3	10/15/2018	

SC 1	Class III watercourse with an 18" diameter culvert inlet and a 36" diameter outlet. The inlet on the 36" diameter CMP culvert is smashed and the previous landowner placed an 18" diameter CMP culvert within the inlet of the 36" diameter culvert. The culvert is undersized for a 100-year storm.	A.2.	N/A	Replace the stream crossing culverts with a 42-inch diameter smoothed walled culvert or a 48-inch corrugated culvert per attached specifications at a minimum 5% grade.	4	10/15/2020	
Point of Diversion, Water Storage	Water Storage and Use	A. 5.	N/A	<p>--Develop off-stream storage facilities that provide adequate water resources for the 150-day forbearance period from surface water diversions or rely only on well water sources from May 15th to October 15th.</p> <p>--If the Discharger continues to divert and store surface waters for longer than 30 days, an Initial Statement of Water Diversion and Use shall be filed with the California State Water Resources Control Board while Discharger waits to apply for a Small Irrigation Use Registration, once available.</p> <p>--Install water meters to better document water usage.</p>	3	2018	

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

Attached Photo's



Ditch Relief Culvert 1: Plugged 12" diameter inside ditch relief culvert where surface flows are bypassing the inlet and running down the road resulting in erosion of the roads surface. Replace the ditch relief culvert with an 18" diameter ditch relief culvert and rock armor the inlet and outlet per attached specifications.



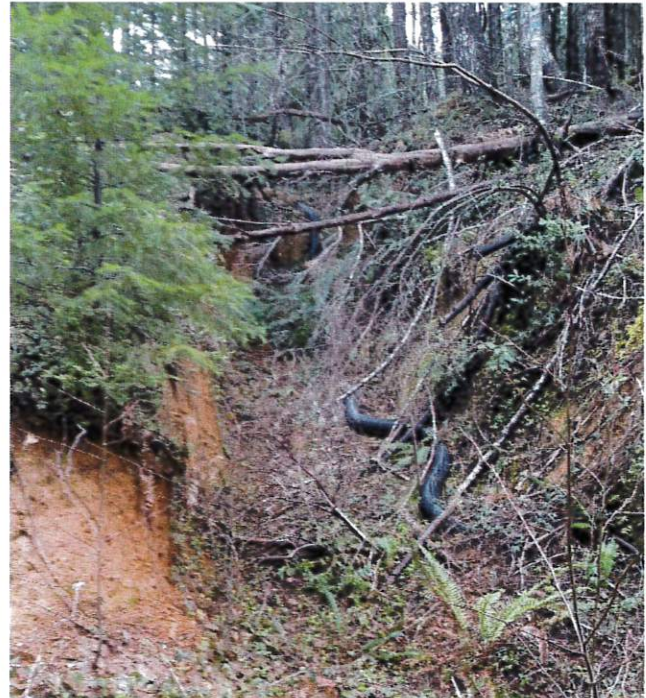
Road Point 1: Inside ditch flows are over-whelming the ditch relief culvert at DRC 1. Install a rolling dip per attached speciation's to reduce flows reaching DRC 1.



Ditch Relief Culvert 2: Plugged trash rack on a 12" diameter inside ditch relief culvert inlet. Remove debris from the trash rack and the culvert inlet rock armor the inlet and outlet per attached specifications. If the Discharger cannot remove the debris from the trash rack, the inlet, or the culvert is plugged, the Discharger shall replace the 12" diameter DRC with an 18" diameter ditch relief culvert per attached specifications.



Road Point 2: Plugged 12" drainage ATV crossing that is no longer needed. Remove the crossing and any fill within the drainage.



Ditch Relief Culvert 3: 12" inlet/18" outlet diameter ditch relief culvert with a damaged inlet. A 6" flex pipe coming from an old drainage ditch is spliced into the 12" ditch relief culvert pipe. Remove the damaged inlet and rock armor the inlet and outlet per attached specifications. If the Discharger cannot remove the damaged inlet, or the culvert is crushed or damaged beyond repair, the Discharger shall replace the ditch relief culvert with an 18" diameter ditch relief culvert per attached specifications.



Stream Crossing 1: Class III watercourse with an 18" diameter culvert inlet and a 36" diameter outlet. The inlet on the 36" diameter CMP culvert is smashed and the previous landowner placed an 18" diameter CMP culvert within the inlet of the crushed 36" diameter culvert. The culvert is undersized for a 100-year storm.

Replace the stream crossing culverts with a 42-inch diameter smoothed walled culvert or a 48-inch corrugated culvert per attached specifications at a minimum 5% grade.

Attachments

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.
- 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.
- Do not discharge flows from ditch relief culverts onto unstable or highly erodible hillslopes.
- If the ditch is on an insloped or crowned road, consider using outsloping to drain the road surface. The ditch and the ditch relief culvert would then convey only spring flow from the cutbank and upslope ditch, and not turbid runoff from the road surface.

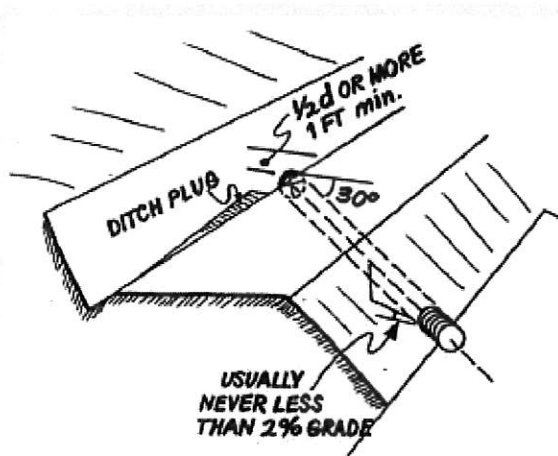
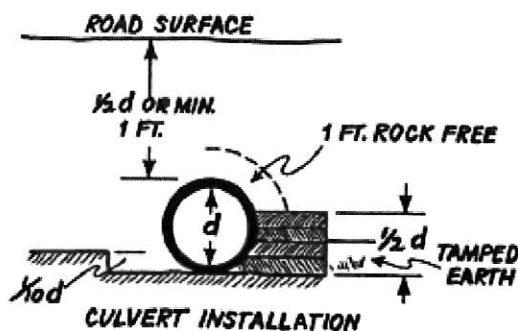


FIGURE 48. The elements of a properly installed ditch relief culvert. The culvert is angled at about 30 degrees to the road alignment to help capture flow and prevent culvert plugging or erosion of the inlet area. It is set at the base of the fill (ideally) or with a grade slightly steeper than the grade 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: Inlet and Outlet Armoring

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

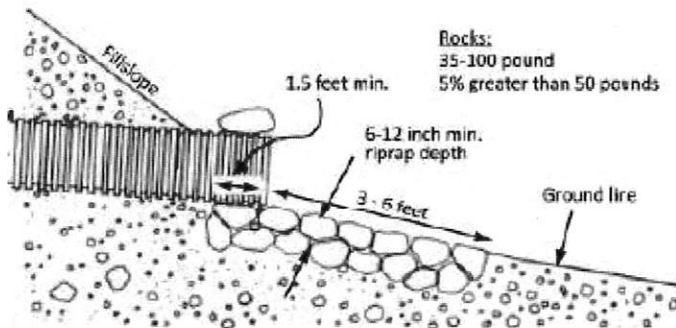


FIGURE 107A. Riprap armor at culvert outlet (Modified from: Keller et al., 2011).

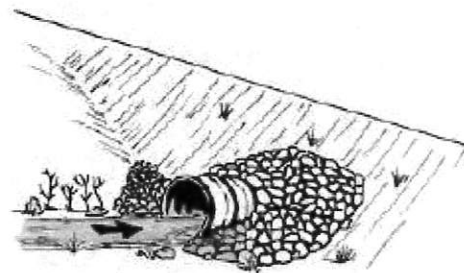
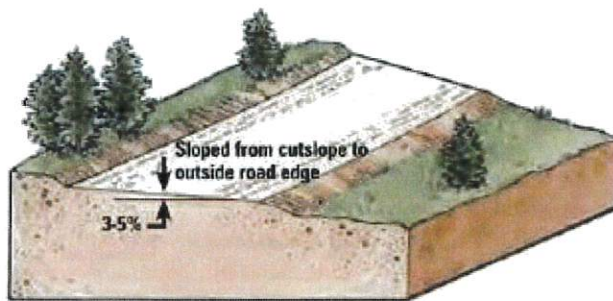


FIGURE 107B. Riprap armor at culvert inlet (Keller and Sheraz, 2003).

BMP: Out sloped, In sloped, Crowned Roads

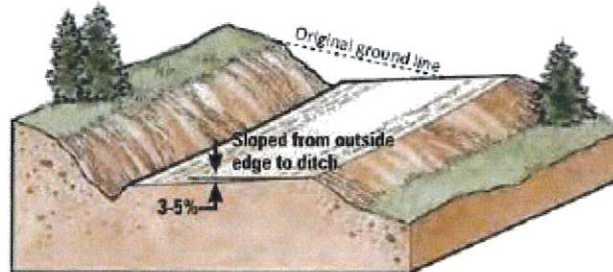
Outsloped



Outsloped roads are used:

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

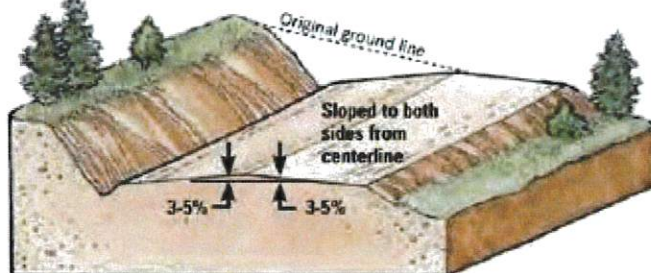
In sloped



In sloped 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 hillside cutting and have higher cutbanks than outsloped roads because of the extra width needed for a ditch (Modified from: Adams and Storm, 2011).

BMP: Rocked Rolling Dip

- Rocked rolling dips are drainage structures designed to carry surface water across roads.
- The truck road shall dip into and out of the rocked rolling dip to minimize diversion potential.
- The rocked rolling dip shall be constructed with clean native rock that is large enough to remain in place during peak flows. Rock size shall vary relative to the size of the watercourse; however an average 6" sized rock shall be used.
- The rocked rolling dips inlet and outlet shall be armored to resist downcutting 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 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 swales 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 must be drivable and not significantly inhibit traffic and road use.

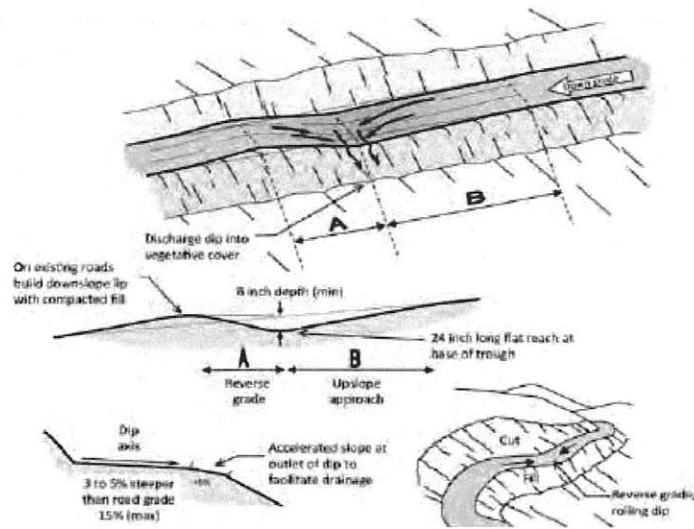
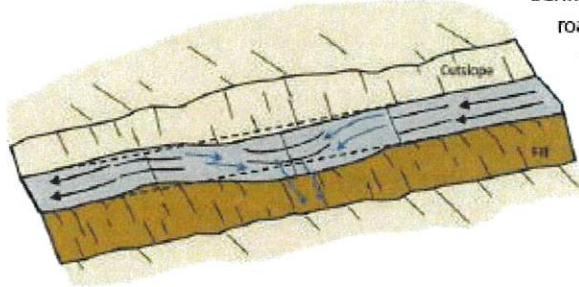


FIGURE 34. A classic Type I rolling dip, where the excavated up-road approach (B) to the rolling dip is several percent steeper than the approaching road and extends for 60 to 80 feet to the dip axis. The lower side of the structure reverses grade (A) over approximately 15 feet or more, and then falls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

HANDBOOK FOR FOREST, RANCH AND RURAL ROADS

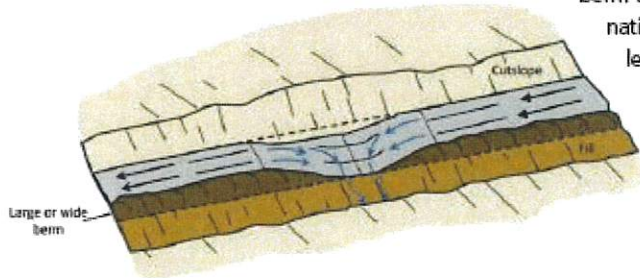
BMP: (Rocked) Rolling Dip (Cont.)

Type 1 Rolling Dip (Standard)



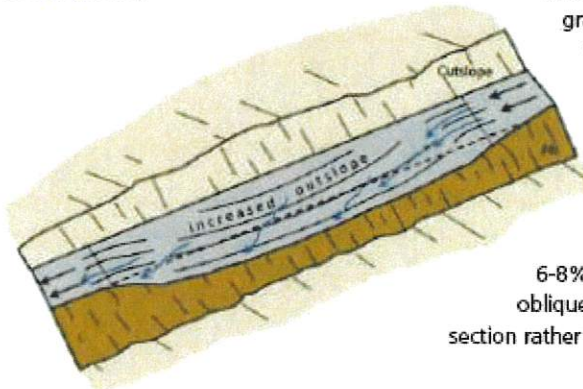
Type 1 rolling dips are used where road grades are less than about 12-14% and road runoff is not confined by a large through cut or berm. The axis of the dip should be perpendicular to the road alignment and sloped at 3-4% across the road tread. Steep roads will have longer and more abrupt dip dimensions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

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



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

Type 3 Rolling Dip (Steep road grade)



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

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

FIGURE 36. *Rolling dip types*

BMP: Culvert Installation Specifications

- New culvert installations shall be sized to accommodate a 100-year storm.
- If the new culvert is replacing a poorly installed old culvert the crossing may need to be abandoned to the following standard:
 - When fills are removed they shall be excavated to form a channel that is as close as feasible to natural watercourse grade and orientation, and that is wider than the natural channel.
 - Excavated banks shall be laid back to a 2:1 (50%) or natural slope.
- New culverts shall be placed at stream gradient, or have downspouts, or have energy dissipaters at outfall.
 - Align culverts with the natural stream channel orientation to ensure proper function, prevent bank erosion and minimize debris plugging. See Figure 97 below.
 - Place culverts at the base of the fill and at the grade of the original streambed or install a downspout past the base of the fill. Downspouts should only be installed if there are no other options.
 - Culverts should be set slightly below the original stream grade so that the water drops several inches as it enters the pipe.
 - Culvert beds should be composed of rock-free soil or gravel, evenly distributed under the length of the pipe.
 - Compact the base and sidewall material before placing the pipe in its bed.
 - Lay the pipe on a well-compacted base. Poor basal compaction will cause settling or deflection in the pipe and can result in separation at a coupling or rupture in the pipe wall.
 - Backfill material should be free of rocks, limbs or other debris that could dent or puncture the pipe or allow water to seep around the pipe.
 - Cover one end of the culvert pipe, then the other end. Once the ends are secure, cover the center.
 - Tamp and compact backfill material throughout the entire process, using water as necessary for compaction.
 - Backfill compacting will be done in 0.5 – 1.0 foot lifts until 1/3 of the diameter of the culvert has been covered.
 - Push layers of fill over the crossing to achieve the final design road grade, at a minimum of one-third to one-half the culvert diameter.
- Critical dips shall be installed on culvert crossings to eliminate diversion potential. Refer to Figure 86 below.
- Road approaches to crossings shall be treated out to the first drainage structure (i.e. waterbar) or hydrologic divide to prevent transport of sediment.
- Road surfaces and ditches shall be disconnected from streams and stream crossings to the greatest extent feasible. Ditches and road surfaces that can not be feasible disconnected from streams or stream crossings shall be treated to reduce sediment transport to streams.
- If downspouts are used they shall be secured to the culvert outlet and shall be secure on fill slopes.
- Culverts shall be long enough so that road fill does not extend or slough past the culvert ends.
- Inlet of culverts and associate fill shall be protected with appropriate measures that extend at least as high as the top of the culvert.
- Outlet of culverts shall be armored with rock if road fill sloughing into channel can occur.
- Armor inlets and outlets with rock, or mulch and seed with grass as needed (not all stream crossings need to be armored).
- Where debris loads could endanger the crossing a debris catchment structure shall be constructed upstream of the culvert inlet.
- Bank and channel armoring may occur when appropriate to provide channel and bank stabilization.

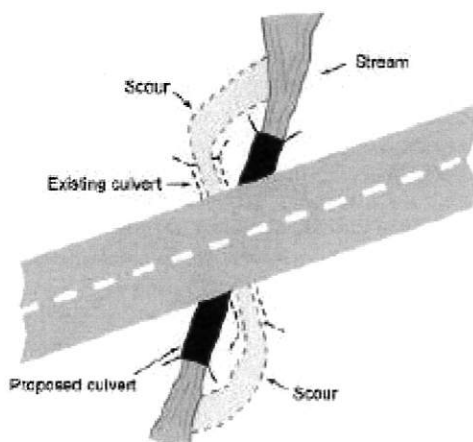


FIGURE 97. *Culvert alignment should be in relation to the stream and not the road. It is important that the stream enters and leaves the culvert in a relatively straight horizontal alignment so streamflow does not have to turn to enter the inlet or discharge into a bank as it exits. This figure shows a redesigned culvert installation that replaces the bending alignment that previously existed. Channel turns at the inlet increase plugging potential because wood going through the turn will not align with the inlet. Similarly, channel turns at the inlet and outlet are often accompanied by scour against the channel banks (Wisconsin Transportation Information Center, 2004).*

BMP: Culvert Installation Specifications (cont.)

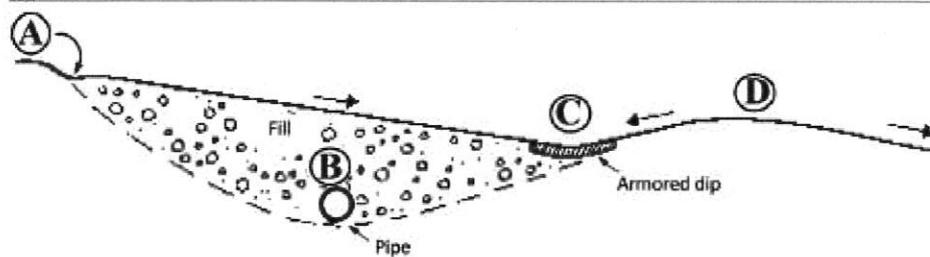
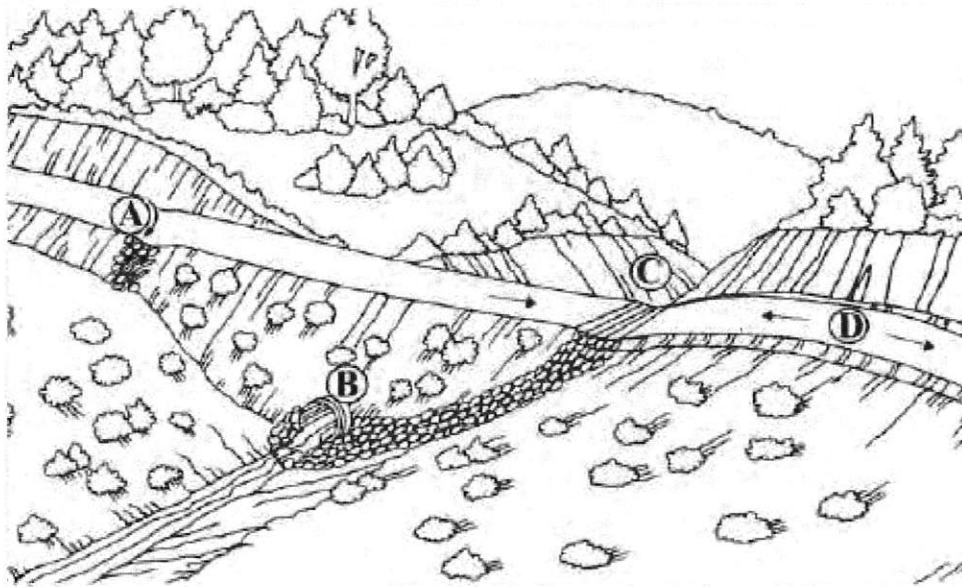


FIGURE 84. Critical dips or dipped crossing fills should be centered near a stream crossing's down-road hingeline, not over the centerline of the crossing where overtopping could cause washout or severe erosion of the fill. If the stream crossing culvert (B) plugs, water will pond behind the fill until reaching the critical dip or low point in the crossing (C) and flowing back down into the natural stream channel. The down-road ditch must be plugged to prevent streamflow from diverting down the ditch line. For extra protection in this sketch, riprap armor has been placed at the critical dip outfall and extending downslope to the stream channel. This is only required or suggested on stream crossings where the culvert is highly likely to plug and the crossing fill overtopped. The dip at the hinge line is usually sufficient to limit erosional damage during an overtopping event. Road surface and ditch runoff is disconnected from the stream crossing by installing a rolling dip and ditch relief culvert just up-road from the crossing (A) (Keller and Sherar, 2003).

BMP: Culvert Installation Specifications (cont.)

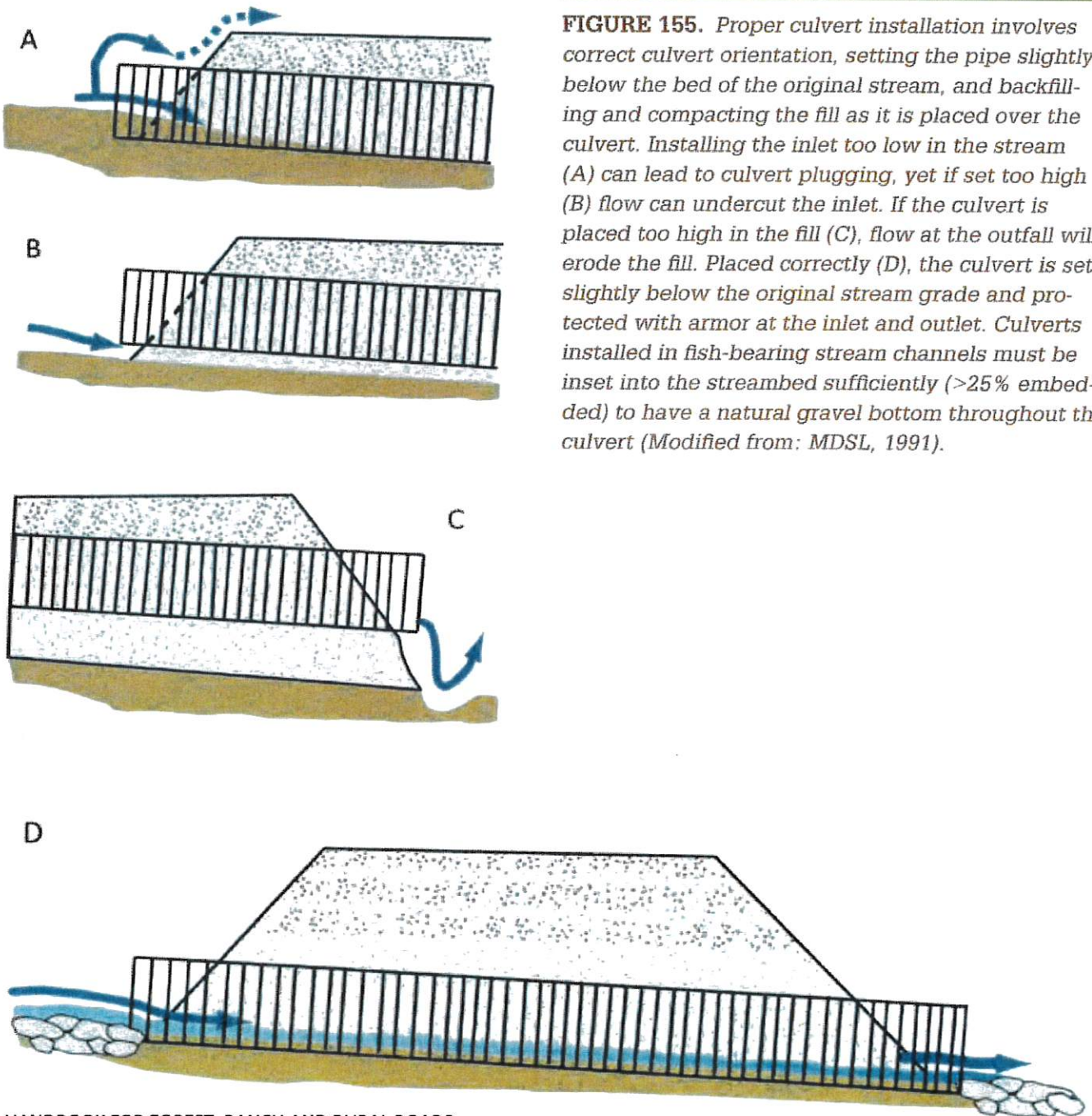
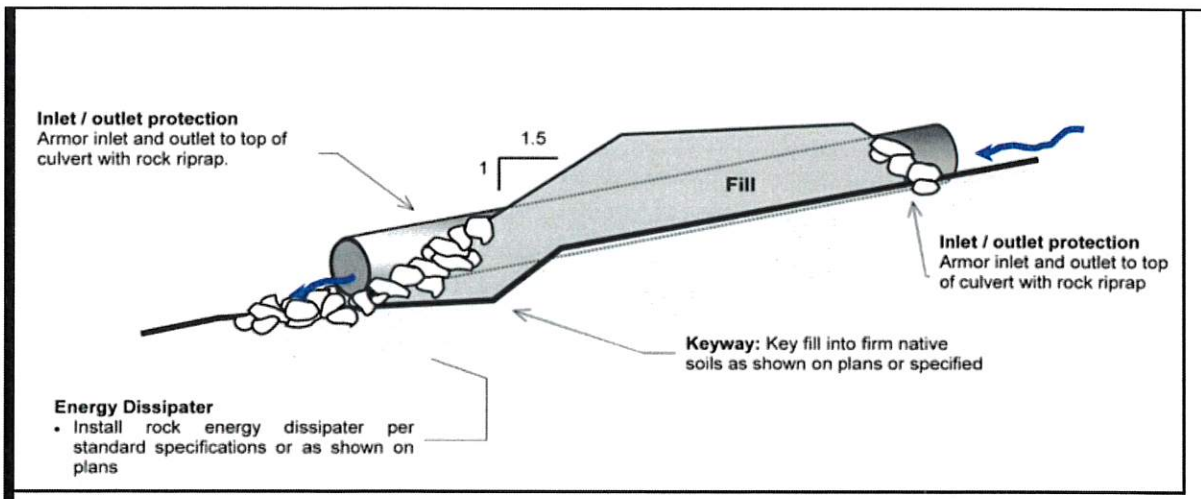
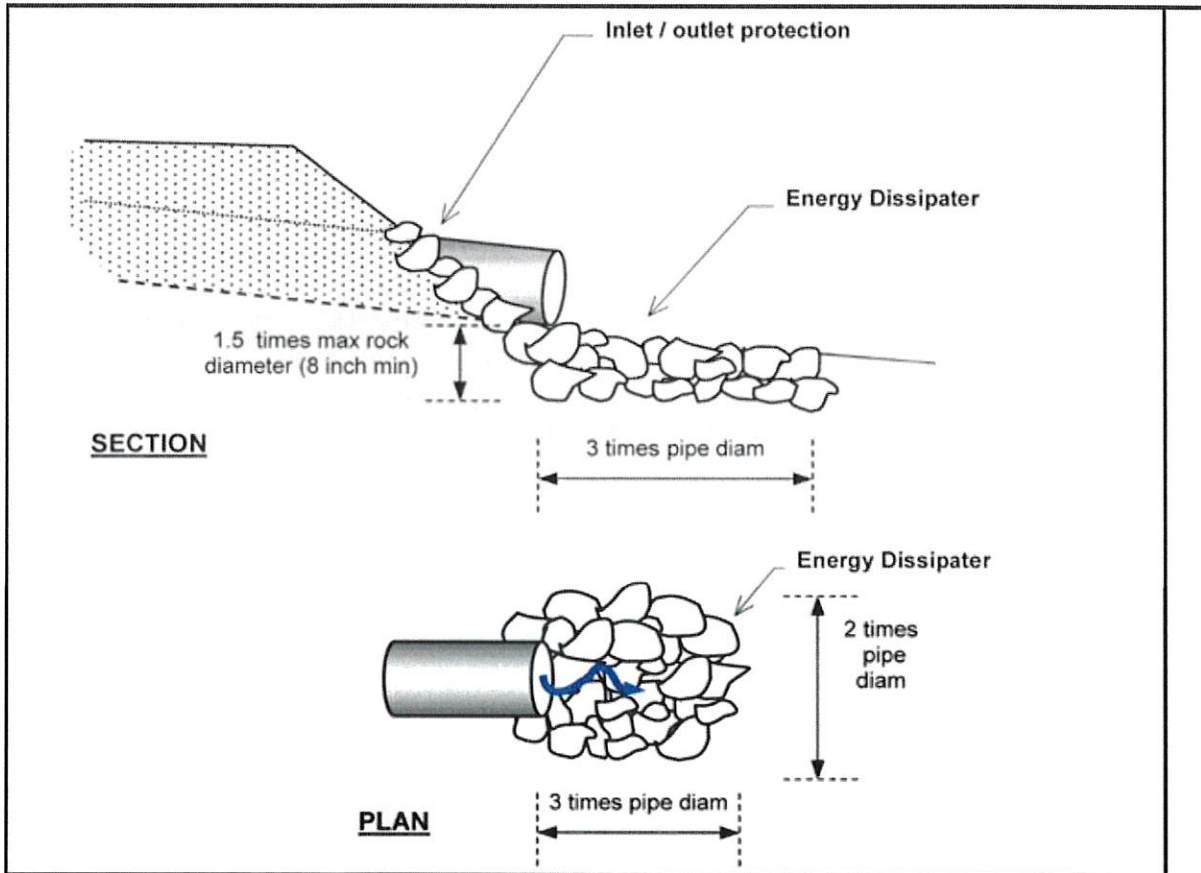


FIGURE 155. Proper culvert installation involves correct culvert orientation, setting the pipe slightly below the bed of the original stream, and backfilling and compacting the fill as it is placed over the culvert. Installing the inlet too low in the stream (A) can lead to culvert plugging, yet if set too high (B) flow can undercut the inlet. If the culvert is placed too high in the fill (C), flow at the outfall will erode the fill. Placed correctly (D), the culvert is set slightly below the original stream grade and protected with armor at the inlet and outlet. Culverts installed in fish-bearing stream channels must be inset into the streambed sufficiently (>25% embedded) to have a natural gravel bottom throughout the culvert (Modified from: MDSL, 1991).

BMP: Culvert Installation Specifications (cont.)



Riprap installed to protect the inlet and outlet of a stream crossing culvert from erosion or for energy dissipation should be keyed into the natural channel bed and banks to an approximate depth of about 1.5x the maximum rock thickness. Riprap should be placed at least up to the top of the culvert at both the inlet and outlet to protect them from splash erosion and to trap any sediment eroded from the newly constructed fill slope above

BMP: Rocked ford crossing

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.








**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 316-064-011 in Trinity County, at the request of the Client.
2. Timberland Resource Consultants does not assume any liability for the use or misuse of the information in this Water Resource Protection Plan.
3. The information is based upon conditions apparent to Timberland Resource Consultants at the time the inspection was conducted, and as disclosed to Timberland Resource Consultants by the landowner and/or Discharger. Changes due to land use activities or environmental factors occurring after this inspection, have not been considered in this Water Resource Protection Plan.
4. Maps, photos, and any other graphical information presented in this report are for illustrative purposes. Their scales are approximate, and they are not to be used for locating and establishing boundary lines.
5. The conditions presented in this Water Resource Protection Plan may differ from those made by others or from changes on the property occurring after the inspection was conducted. Timberland Resource Consultants does not guarantee this work against such differences.
6. Timberland Resource Consultants did not conduct an investigation on a legal survey of the property.
7. Persons using this Water Resource Protection Plan are advised to contact Timberland Resource Consultants prior to such use.
8. Timberland Resource Consultants will not discuss this report or reproduce it for anyone other than the Client named in this report without authorization from the Client.

Forrest Hansen
Timberland Resource Consultants

180101020201TRC165
WRPP Site Map

-  Property Boundary
-  Highway 299
-  Permanent Rocked Road
-  ATV Access Trail
-  Road Point (RP)
-  Ditch Relief Culvert (DRC)
-  Stream Crossing (SC)

-  Willow Creek
-  Class II watercourse
-  Class III watercourse
-  Drainage
-  Water Tank
-  Point of Diversion
-  Greenhouse Cultivation
-  Outdoor Cultivation

-  Soil Pile
-  Cultivation Waste/Burn Pile
-  Residence
-  Ag Barn



2016 NAD DOQ - 40' contours
 Map Scale 1" = 300'
 Map Date 2/2/2017
 SW ¼, Section 10, T6N, R4E, H8M



**180101020201TRC165
WRPP Site Map**

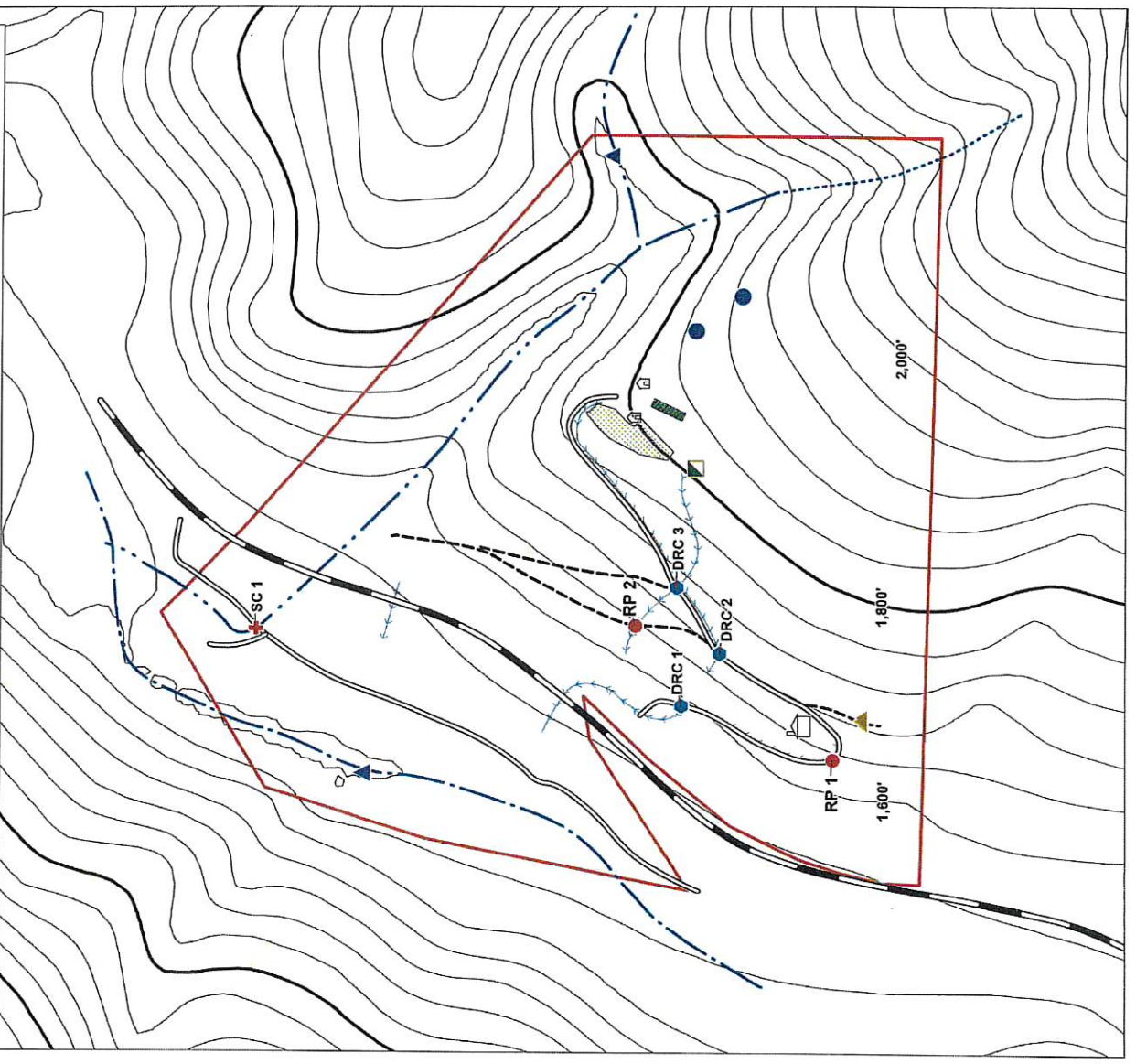
- Property Boundary
- Highway 209
- Permanent Rocked Road
- ATV Access Trail
- Road Point (RP)
- Ditch Relief Culvert (DRC)
- Stream Crossing (SC)

- Willow Creek
- Class II watercourse
- Class III watercourse
- Drainage
- Water Tank
- Point of Diversion
- Greenhouse Cultivation
- Outdoor Cultivation

- Soil Pile
- Cultivation Waste/Burn Pile
- Residence
- Ag Barn



40' contours
Map Scale 1" = 300'
Map Date 2/22/2017
SW 1/4, Section 10, T6N, R4E, H8&M



180101020201TRC165
WRPP Locator Map

Property Boundary



USGS Willow Creek 7.5' - 40' contours
Map Scale: 1" = 2,000'
Map Date: 2/3/2017
SW 1/4, Section 10, T8N, R4E, HB&M

