

Water Resource Protection Plan For WDID #1B16446CHUM

Submitted to:

Ethan Aronson
4220 Browns Road
Eureka, California 95501

Prepared by:

Timberland Resource Consultants
165 South Fortuna Blvd
Fortuna, CA 95540

9-14-2016

Purpose

This Water Resource Protection Plan (WRPP) has been prepared on behalf of the discharger, 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 reviewing available CGS Geomorphic Features Maps, Geology Maps, and historic aerial photos. 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.

180102111206TRC58– 9/14/16

Identified Sites Requiring Remediation (See Standard Conditions Assessment)

Unique Map Point(s)	Map Point Description	Associated Standard Condition	Temporary BMP	Permanent BMP	Priority for Action	Time Schedule for completion of Permanent BMP	Completion Date
Road Segment 1	Road surface drainage	A(1)(a)	N/A	Install, repair, and maintain waterbreaks, rolling dips, and/or drainage push outs prior to the winter period.	2	11/15/16	
Map Point 2	Developing rut on ATV Trail. Reconstruct waterbreak.	A(1)(b)	N/A	Reconstruct (build up) and maintain the waterbreak to ensure that road drainage is not directed down the ATV trail for a long distance.	2	11/15/16	
Map Point 3	"French drain" and flex pipe draining bank seepage.	A(1)(c)	N/A	Maintain "French drain" and ensure that drainage from the cultivation area is not being directed towards the unstable area.	2	11/15/16	
Map Point 4	Install rocked rolling dip	A(1)(d)	N/A	Install a rocked rolling dip to ensure that the cut bank seep is drained across the road efficiently.	3	11/15/17	
ATV Access Trail within Unstable Area.	Existing ATV Access Trail across unstable area.	A(1)(c)	N/A	Maintain the existing waterbreaks along this ATV access trail.	2	11/15/16	
Southern most Developed Area	Developed area and storage sheds within 100 ft wide streamside buffer.	A(3)	N/A	Monitor runoff coming from storage sheds and the driveway during storms to ensure sediment nor other pollutants are reaching the watercourse. Cover or remove things with the potential to be carried or leached into the watercourse by surface flow during storms (Priority 2). In the future the discharger should work towards relocating the temporary sheds and to refrain from parking within 100 feet of the watercourse (Priority 4).	2 4	11/15/16 Within 5 years	

Identified Sites Requiring Remediation (See Standard Conditions Assessment)

Unique Map Point(s)	Map Point Description	Associated Standard Condition	Temporary BMP	Permanent BMP	Priority for Action	Time Schedule for completion of Permanent BMP	Completion Date
Surface Diversions (PODs), Water Tanks	Water Storage and Use	A(5)	N/A	Increase offstream water storage to a sufficient amount to avoid surface diversion for irrigation during the low flow period (May 15 – Oct 15). Follow the requirements of the approved Streambed Alteration Agreement and Small Domestic Water Use Reg. with regards to water use and diversions.	1	5/15/16	
No Unique Map Point	Garbage Storage	A(11)	N/A	Store garbage in covered containers or tarped during the winter	2	11/15/16	

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 (Nov. 15), (3) indicates a moderate priority with treatment being planned to occur within one year, or prior to the winter period (Nov. 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).

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>).

Inspection Personnel Contact Information:

Ron Pelletier
Timberland Resource Consultants
165 South Fortuna Blvd, Fortuna CA 95540
707-725-1897

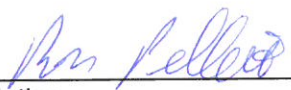
Monitoring Plan Reporting Requirements

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.

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 316-063-006 at the request of the discharger.
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.



Ron Pelletier
Timberland Resource Consultants

Water Resource Protection Plan
General Location Map - WDID 1B16446CHUM

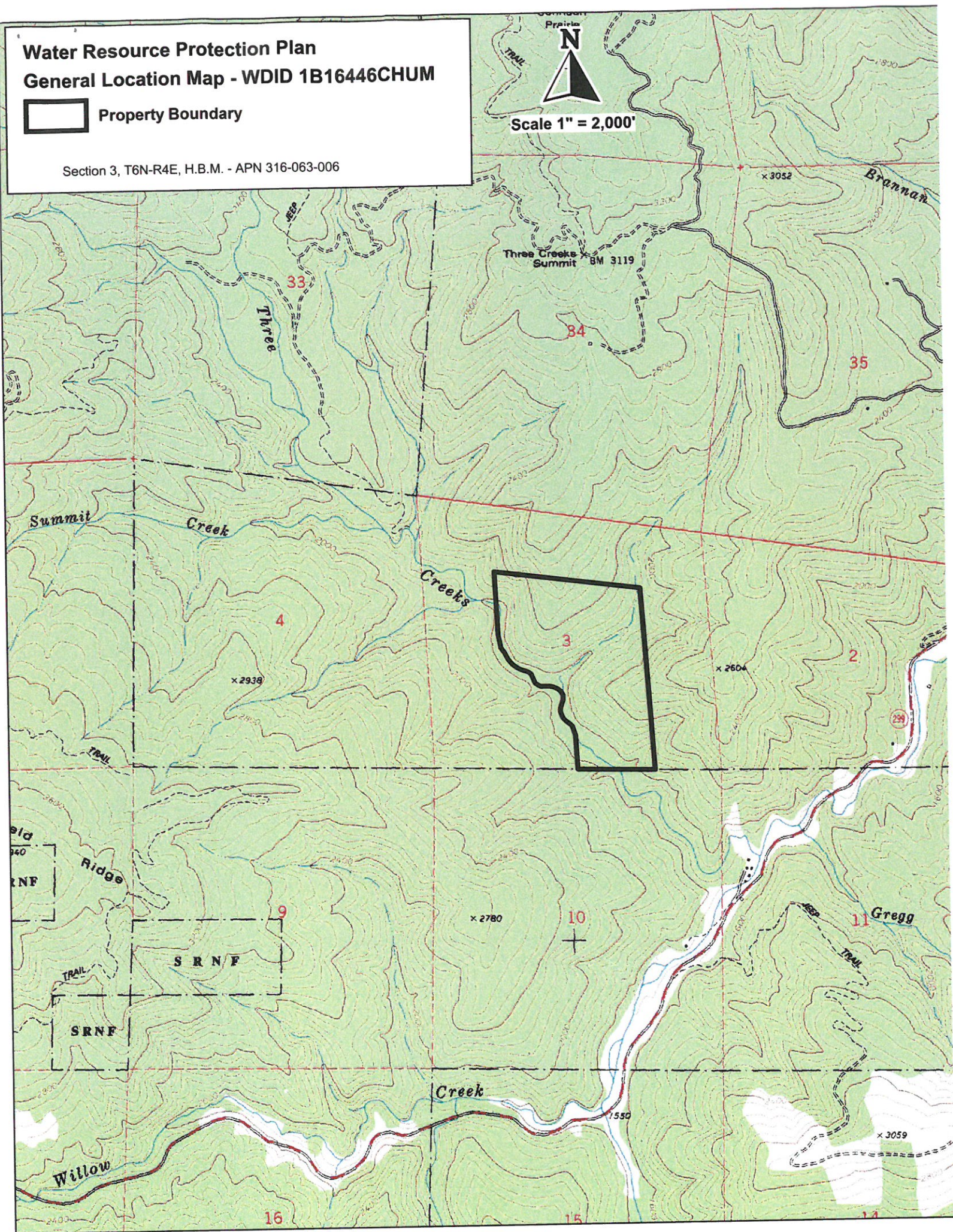


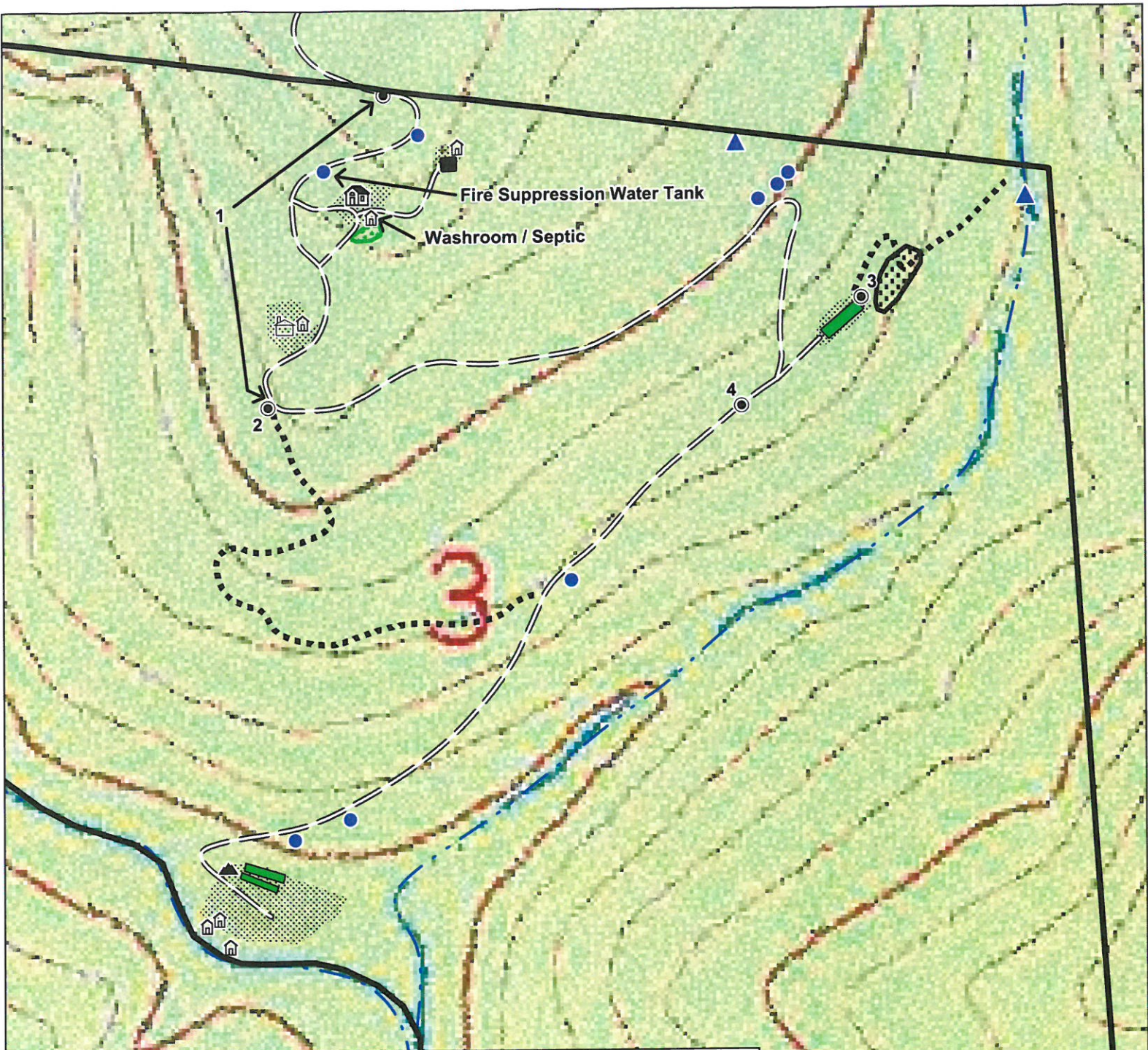
Property Boundary

Section 3, T6N-R4E, H.B.M. - APN 316-063-006



Scale 1" = 2,000'





Water Resource Protection Plan

WRPP Map - WDID 1B16446CHUM

NORTH
1" = 300'

	Property Boundary		Cultivation Areas - Greenhouses
	Access Roads		Cultivation Area - 20 outdoor pots
	ATV Access Trail		Shop / Storage
	Class II Watercourse		Small Storage Shed / Out building
	Class I Watercourse		Cultivation Soils (tarped)
	Point of Diversion		House
	Water Tanks		Unstable Area
	Developed Area		30' x 30' Wooden Deck
	Map Points		
	Road Segment		



Water Resource Protection Plan WRPP Map - WDID 1B16446CHUM



- | | | | |
|--|----------------------|--|------------------------------------|
| | Property Boundary | | Cultivation Areas - Greenhouses |
| | Access Roads | | Cultivation Area - 20 outdoor pots |
| | ATV Access Trail | | Shop / Storage |
| | Class II Watercourse | | Small Storage Shed / Out building |
| | Class I Watercourse | | Cultivation Soils (tarped) |
| | Point of Diversion | | House |
| | Water Tanks | | Unstable Area |
| | Developed Area | | 30' x 30' Wooden Deck |
| | Map Points | | |
| | Road Segment | | |

Water Resource Protection Plan

Assessment of Standard Conditions for APN 316-063-006 – WDID #1B16446CHUM

A. Standard Conditions, Applicable to All Dischargers

1. Site maintenance, erosion control and drainage features

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

The road that accesses the property is rocked. Road drainage features appeared to be worn down from normal use. The road segment identified as Road Segment 1 on the WRPP Map, appears susceptible to surface erosion and rutting during the winter seasons due to its grade. Shallow rutting had taken place along the road surface during the previous winter. If left unchecked, there is the potential that this road segment would no longer be in compliance with Standard Condition A.(1)(a), above. To prevent future rutting of the road surface, and to remain in compliance with this Standard Condition of the Order, Road Segment 1 should have surface drainage features installed prior to the winter period. Drainage features can include waterbreaks, rolling dips, or drainage push outs.

- 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

A location was identified where concentrated road surface drainage exits the road at the location of a mapped ATV trail. Map Point 2 is a waterbreak location on this ATV trail that needs to be reconstructed (built up) and maintained to ensure that road drainage is not directed down the ATV trail for a long distance, and to remain in compliance with Standard Condition A.(1)(b). Also, by installing road surface drainage features along Road Segment 1 as directed in (a) above, there will not be as much road surface drainage being directed down the ATV trail in the future.

- 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 identified one small unstable area per 14CCR 895.1. It appears to have been a road or landing related fill failure. A portion of this property was logged under an approved timber harvest plan, 1-04-077 HUM. The timber harvest plan (THP) was completed on 12/3/07. Its silviculture methods were mostly rehabilitation of understocked areas and seed tree removal areas. It included road construction and reconstruction. According to online records, a significant portion of the THP acreage was not harvested. Development occurred on the property after the timber harvest, between 2008 and 2012. Through review of historic aerial photos, it appears that the unstable area most likely occurred between 2010 and

2012. This was difficult to determine for sure because of quality of the photos. The unstable area is shown to have taken place within a portion of the THP area that, according to on-line records, was not logged. The unstable area is now fully vegetated with grass and shrubs. The 150 to 200 feet that separate the bottom of the unstable area from the large Class II watercourse is timbered and heavily vegetated. The unstable area is not delivering sediment into the Class II watercourse.

A developed cultivation area is located near the top of the unstable area, at the end of an existing, widened road surface / log landing area. The outside edge of the road / landing immediately beyond the cultivation area is where the unstable area is located. Surface drainage from the cultivation is not being directed towards the unstable area. The road segment containing the cultivation has a level grade. There is a small bank seepage located beyond the end of the cultivation area, above the unstable area. The bank seepage along with road and landing fill placement may have contributed to the unstable area. At some point prior to the assessment date, 6/1/16, a “French drain” was installed in the road surface by the Discharger. It is shown as Map Point 3 on the WRPP Map. The drain is connected to a length of 8 inch diameter flex pipe that extends across the unstable area. The intent was to provide road surface drainage of the seep, while directing surface drainage off of the unstable feature. It appeared to be successful. On the assessment date, the bank seep was still wet and the “French drain” and flex pipe was functioning. To remain in compliance with Standard Condition A.(1)(c), the Discharger should continue to maintain this site to keep the “French drain” functioning and to ensure that in the future, drainage from the cultivation area is not being directed towards the unstable area.

An ATV access trail is located across a portion of the unstable area. It is shown on the WRPP Map. It is used for access to one of the surface diversions (POD) on the property. It is very narrow in width. It is located on the contour of ground and does not contain cuts and fills. It appeared well drained with rolling dips and/or waterbreaks. The Discharger should continue to maintain the existing waterbreaks along this ATV access trail.

- 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 hydrologically disconnected¹, as feasible, from surface waters, including wetlands, ephemeral, intermittent and perennial streams.

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)

A location was identified where bank seepage crosses the road in a shallow dip. It is shown as Map Point 4 on the WRPP Map. This site is in need of maintenance, but is not a significant erosion site. Currently, this site is not efficiently draining the road surface, as evidenced by several potholes. During heavy precipitation, drainage at this site has potential to escape the shallow dip and extend down the road for a short distance. A rocked rolling dip should be constructed at this site to ensure that the cut bank seep is drained across the road efficiently. Other than this location, roads, clearings, fill prisms, and terraced areas on the property are hydrologically disconnected from surface waters. There are no watercourse crossings on the property.

- 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.

In compliance at this time. The roads on the property are mainly outsloped and are not located near watercourses. Other than the roads and ATV trails identified above, no other roads or terrace surfaces on the property showed signs of erosion or evidence of soil transport to a receiving water.

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

In compliance at this time. In the future, all construction materials will be stored to prevent their transport to receiving waters.

2. Stream Crossing Maintenance

- a. Culverts and stream crossings shall be sized to pass the expected 100-year peak streamflow.
- b. Culverts and stream crossings shall be designed and maintained to address debris associated with the expected 100-year peak streamflow.
- c. Culverts and stream crossings shall allow passage of all life stages of fish on fish-bearing or restorable streams, and allow passage of aquatic organisms on perennial or intermittent streams.
- d. Stream crossings shall be maintained so as to prevent or minimize erosion from exposed surfaces adjacent to, and in the channel and on the banks.
- e. Culverts shall align with the stream grade and natural stream channel at the inlet and outlet where feasible.²
- f. Stream crossings shall be maintained so as to prevent stream diversion in the event that the culvert/crossing is plugged, and critical dips shall be employed with all crossing installations where feasible.³

²At 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.

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

In compliance at this time. There are no watercourse crossings located on this property.

3. Riparian and Wetland Protection and Management

- a. For Tier 1 Dischargers, cultivation areas or associated facilities shall not be located within 200 feet of surface waters. While 200 foot buffers are preferred for Tier 2 sites, at a minimum, cultivation areas and associated facilities shall not be 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 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.
- 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.
- d. Riparian and wetland areas shall be protected in a manner that maintains their essential functions, including temperature and microclimate control, filtration of sediment and other pollutants, nutrient cycling, woody debris recruitment, groundwater recharge, streambank stabilization, and flood peak attenuation and flood water storage.

⁴Alternative 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.

The current cultivation areas are in compliance with the Order at this time. The small outdoor cultivation area that is located near the house on the property, is hundreds of feet from the nearest watercourse. The greenhouse cultivation area located near the northeast corner of the property is located over 300 feet from the large Class II watercourse. The southernmost greenhouse cultivation area is located 140 feet from a Class I watercourse that flows through the property. On the west end of this cultivation area are neatly stacked rows of soil filled grow bags covered with tarps. They are being stored for reuse at a later date. These soil filled grow bags are approximately 180 feet from the Class I watercourse. The 140 to 180 feet of distance that separate the cultivation area from the watercourse is flat and well drained with no apparent drainage connection to the watercourse.

The developed area encompassing the southernmost cultivation area extends into the 100 foot wide streamside buffer. The outer 30 feet (+-) is flat, cleared, useable ground. The inner 70 feet (+-) of this buffer strip is flat, tree covered and heavily shaded. This buffer is made up of natural slopes and is adequate to filter waste. One wooden storage shed, two temporary canvas storage sheds, and a one vehicle wide driveway are located within the wooded portion of the buffer. The wooden storage shed is located within 50 of the watercourse, is well maintained, has a metal roof, wooden floor, and a wooden door that locks. It is used for storage of chemicals such as fertilizers, gas cans, oil containers, and power equipment (chainsaws, string trimmers, etc.). The two portable, canvas storage sheds do not have floors and are used to store things that cannot leach into the ground such as irrigation lines, plastic sheeting, hand tools, etc. These storage sheds are located within approximately 50 feet of the watercourse and did not appear to be a pollution threat to the watercourse. The driveway area is wide enough for one vehicle and is located approximately 60 feet from the watercourse. It is on flat ground and did not appear to be a threat to the watercourse. Within this developed area, the discharger should continue to retain as much tree and vegetation cover as possible within 100 feet of the watercourse while still maintaining the useable portion of the developed area. Refrain from tree removal in this area except for trees that pose a safety hazard. The discharger should monitor runoff coming from storage sheds and / or the driveway during storms to ensure sediment or other pollutants are not reaching the watercourse. Minor modifications to reduce potential pollutants from entering the watercourse should be undertaken by the discharger. These could include things such as covering or removing items with the potential to be carried or leached into the watercourse by surface flow during storms. In the future the discharger should work towards relocating the temporary sheds and to refrain from parking within 100 feet of the watercourse.

4. Spoils Management

- 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.

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.

180102111206TRC58- 9/14/16

In compliance at this time. There were no road or site development related spoils being stored on the property, or perched where they have access to a watercourse. Some cultivation related spoils such as soil filled grow bags were being stored on the southern developed area. These are being stored for reuse at a later date. These soil bags were heavily tarped and were not a threat to surface waters.

5. Water Storage and Use:

- a. Size and scope of an operation shall be such that the amount of water used shall not adversely impact water quality and/or beneficial uses, including and in consideration with other water use by operations, instream flow requirements and/or needs in the watershed, defined at the scale of a HUC-12⁶ watershed or at a smaller hydrologic watershed as determined necessary by the Regional Water Board Executive Officer.
- 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.
- d. Water is applied using no more than agronomic rates.⁷
- 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.

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

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

There are two surface water intakes (PODs) in use on the property. They are both used for domestic use and for irrigation. One is located on a very small spring located near the north property line. It consists of a perforated 5 gallon bucket that is set slightly below the grade of the ground and is plumbed with a 1 inch waterline, which gravity feeds into three hard plastic water tanks. Water from these tanks also gravity feeds down to 3 additional water tanks. Water is also pumped up hill to a 2500 gallon water tank that serves the domestic uses as well as some irrigation. Also above the house is a 2500 gallon tank that is kept full and is dedicated solely to emergency fire suppression.

A second water source on the property is located in a large Class II watercourse near the northeast corner of the property. It is plumbed to the same watertanks as described above. Water from this POD must be pumped up hill to the water tanks and is usually used only in the later summer months.

The Discharger irrigates using a drip irrigation system at an agronomic rate that does not result in water waste or runoff. Total cultivation area on the property is approximately 5,000 to 5,500 square feet. On the date of the assessment there were a total of 7 hard plastic water storage tanks on the property that can store a total of 16,550 gallons of water. This does not include the single 2,500 gallon water tank that is dedicated solely for emergency fire suppression. These water storage tanks are located on level, developed surfaces adjacent to roads, and are far from watercourses.

The Discharger is in the process of developing additional water storage on the property in order to forbear surface water diversions during the low flow periods. The amount of water storage on the property currently does not allow for a complete forbearance of surface water diversion for irrigation purposes for the entirety of the low flow period, May 15 through October 15. Increasing offstream water storage on the property, in sufficient quantity to avoid surface diversions during the low flow period for irrigation on the property, is necessary for compliance with the Order.

The Discharger has an approved Streambed Alteration Agreement with the CDFW and a Small Domestic Water Use Registration submitted with the Dept. of Water Rights for the two surface water diversions on the property. These agreements allow for up to 200 gallons per day to be diverted for strictly indoor domestic use during the low flow period, May 15 through Oct. 15. These agreements also require that the Discharger add sufficient water storage to enable forbearance from surface diversions during the low flow period for irrigation purposes. These agreements also include water use recording and reporting requirements. In order to be in compliance with Standard Condition A.(5) water use and storage shall follow the requirements of the Discharger's Streambed Alteration Agreement and Small Domestic Water Use Registration.

6. Irrigation Runoff

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

In compliance at this time. The discharger irrigates at an agronomic rate that relies mainly on a drip irrigation system that does not produce runoff. Due to proximity of the watercourses from the current cultivation areas, it appeared very unlikely that irrigation runoff would occur to a degree that could potentially reach surface waters.

7. Fertilizers and Soil Amendments

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

In compliance at this time. 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. This also applies to spent

180102111206TRC58– 9/14/16

growth spoils that may contain concentrations of fertilizers and amendments. Fertilizers and soil amendments shall be applied per packaging instructions and at agronomic rates. Fertilizing at an agronomic rate will help to prevent nutrients from leaving the site during, and after the growing season. Adequate shed space was located on the property for storage of fertilizers and chemicals. More shed space may be installed in the future.

8. Pesticides/Herbicides

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

The Discharger does not use any chemical pesticides and herbicides. Any pesticide products used on this property in the future shall be consistent with product labelling, and used and stored in a manner that ensures that they will not enter or be released into the surface or ground waters.

9. Petroleum products and other chemicals

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

In compliance at this time. There are no permanent fuel storage tanks on the property. Electricity on the property is supplied by portable gas generators. Gasoline powered generators and power equipment on the property are refueled with portable five or 10 gallon gas cans that are kept under cover of storage sheds or green houses when not in use. To remain in compliance with this order, any portable gas cans or chemical containers should be stored under cover of a shed or a secondary containment vessel when not in use. Items 123-136 in Appendix B of the Order lists measures to prevent spillage and discharge of petroleum and other chemicals to surface or ground waters.

180102111206TRC58– 9/14/16

10. Cultivation-related wastes

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

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

Cultivation wastes were not being stored on the property during the site inspection. Cultivation wastes such as empty bags or containers are typically stored in a trailer used for garbage, and periodically taken to the nearest waste disposal area. Dead and harvested plant waste is composted or burned near the cultivation areas, where they cannot reach surface waters. 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

- 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.

Sewage disposal on the property is a functioning septic system connected to a 10 foot by 12 foot washroom building that is separate from the house. Waste water disposal on the property currently does not appear to be a threat to surface or ground water and was not causing a nuisance on the property. The 20 foot by 75 foot leach field foot print is located underground beneath the outdoor cultivation area. The Discharger stated that the existing septic system was permitted by the County of Humboldt. In order to be in full compliance with Standard Condition 11.a., the septic systems need to meet applicable County health standards, local agency management plans and ordinances, and/or the Regional Water Board's Onsite Wastewater Treatment System (OWTS) policy. See Appendix B. Item 142 of the Order.

Household garbage and refuse was not accumulated or being stored on the property on the inspection date. According to the discharger, garbage is stored in garbage cans and/or a dump trailer and periodically taken to the dump. In order to be in compliance with Standard Condition 11. b. and c. above, refuse and garbage shall be stored in a location and manner that prevents its discharge to receiving waters and prevents any leachate or contact water from entering or percolating to receiving waters. This can be accomplished by storing garbage in covered containers or keeping it tarped during the winter. Garbage and refuse shall be disposed of at an appropriate waste disposal location. See Appendix B. Item 141 of the Order.

180102111206TRC58– 9/14/16

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 outsloping 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 this document.

180102111206TRC58- 9/14/16

Pictures



Picture 1: This is a picture of some of the minor rutting along Road Segment 1 on the WRPP Map, and a good location for a waterbreak to be installed prior to the winter period. Photo date 6/1/2016

180102111206TRC58- 9/14/16

Pictures

Pictures 2 and 3: These are pictures of shallow rutting along the ATV trail surface and the waterbreak at Map Point 2. The waterbreak has become worn down and needs to be built up and maintained to ensure that surface flow in the shallow rut does not escape past the waterbreak. Installation of road surface drainage features along Road Segment 1 will result in less concentrated runoff onto this ATV trail. Photo date 6/1/2016

180102111206TRC58- 9/14/16

Pictures



Pictures 4 and 5: These are pictures of the unstable area. The picture on the left was taken looking northeasterly along the top edge of the unstable area. The picture on the right was taken looking southerly along the top edge of the unstable area. Photo date 6/1/2016

180102111206TRC58- 9/14/16

Pictures



Picture 6: This is a picture of the 8 inch flex pipe that carries bank seep drainage off of the road surface via a "French drain". The flex pipe keeps drainage directed off of the unstable area. Photo date 6/1/2016

180102111206TRC58- 9/14/16

Pictures



Picture 7: This is a picture of the ATV access trail that is located in the unstable area. This photo is taken from the trail surface and looking upslope, northerly. A rolling dip / waterbreak is located just out of view in the picture. Photo date 6/1/2016

180102111206TRC58- 9/14/16

Pictures



Picture 8: This is a picture of the ATV access trail that is located in the unstable area. This photo shows a rolling dip / waterbreak in the lower half of the ATV trail. This photo is taken from next to the trail surface and looking downslope, northeasterly. Photo date 6/1/2016

180102111206TRC58- 9/14/16

Pictures



Picture 9: This is a picture of the road surface at the Map Point 4. A rocked rolling dip should be installed at this location. Photo date 6/1/2016

180102111206TRC58- 9/14/16

Pictures



Picture 10: This is a picture of the southerly cultivation area that is approximately 140 feet away from the Class I watercourse. The Class I watercourse is located out of frame to the right. Photo date 6/1/2016

180102111206TRC58- 9/14/16

Pictures



Picture 11: This is a picture of the soil filled grow bags located near the southerly cultivation area. They are approximately 180 feet away from the Class I watercourse and are heavily tarped. The tarp was pulled back slightly for photo purposed. Photo date 6/1/2016

180102111206TRC58- 9/14/16

Pictures



Picture 12: This is a picture of the wooden storage shed located in the streamside buffer. The Class I watercourse is located approximately 40 feet beyond the back of this shed. In the future the discharger should work towards relocating the temporary sheds and to refrain from parking within 100 feet of the watercourse. Photo date 6/1/2016

180102111206TRC58- 9/14/16

Pictures



Picture 13: This is a picture of the two canvas storage sheds located in the streamside buffer. The Class I watercourse is located approximately 40 to 50 feet beyond the back of this shed. These are used for storage of materials that cannot be leached into the ground such as irrigation lines, plastic sheeting, hand tool, etc. In the future the discharger should work towards relocating the temporary sheds and to refrain from parking within 100 feet of the watercourse. Photo date 6/1/2016

180102111206TRC58- 9/14/16

Pictures



Pictures 14 and 15: These are pictures of the spring POD. The picture on the right was taken looking downslope southeasterly from the spring. Photo date 12/10/2015.

180102111206TRC58- 9/14/16

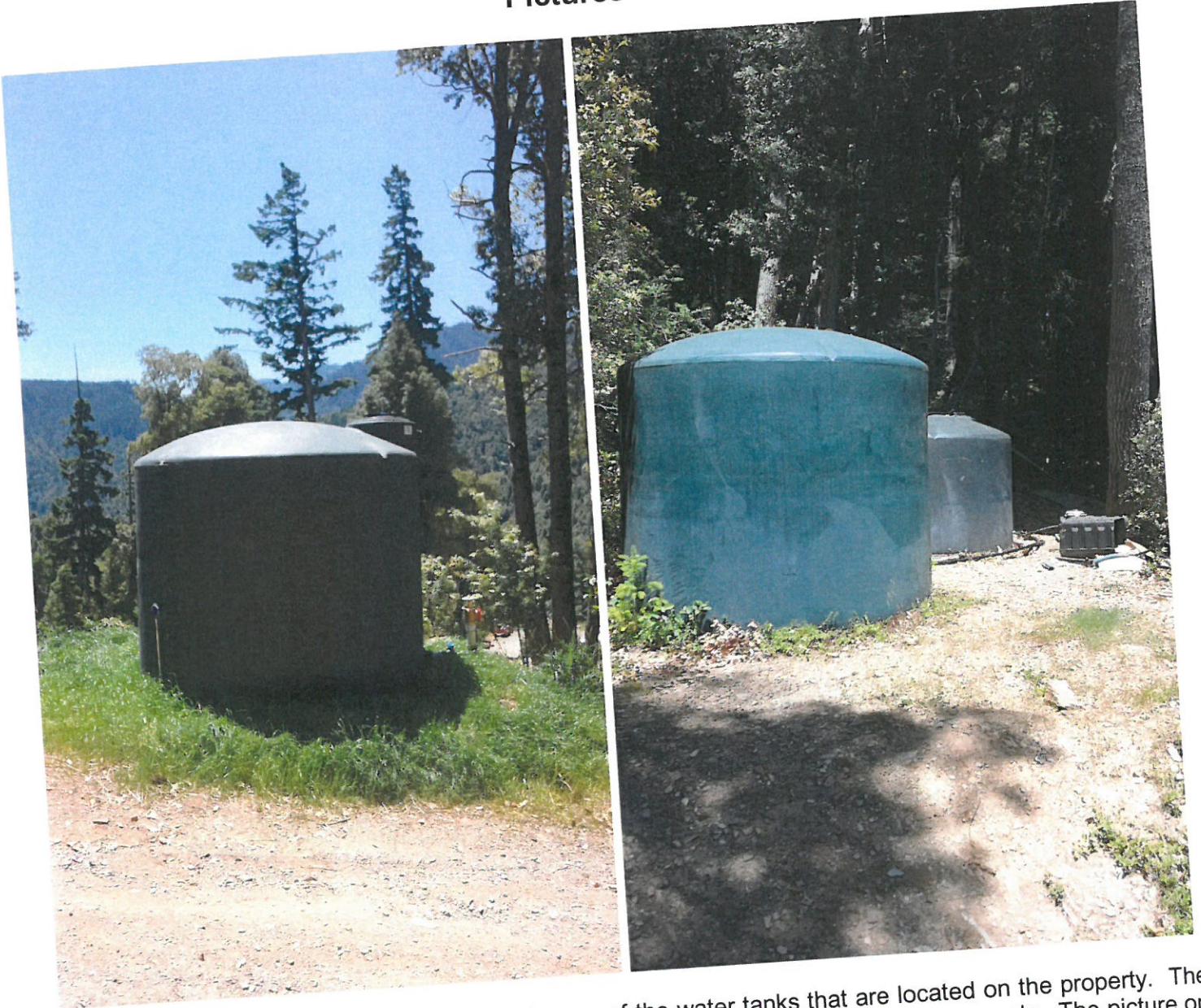
Pictures



Picture 16: This is a photograph of the surface water intake that is located in the large Class II watercourse.
Photo date 12/10/2015.

180102111206TRC58- 9/14/16

Pictures



Pictures 17 and 18: These are pictures of some of the water tanks that are located on the property. The picture on the left show the water tank that is reserved for fire suppression purposes only. The picture on the right shows two of the three tanks located southeast of the spring Point of Diversion. All of the water tanks on the property are situated similar to these pictured. Photo date 6/1/2016.

180102111206TRC58- 9/14/16

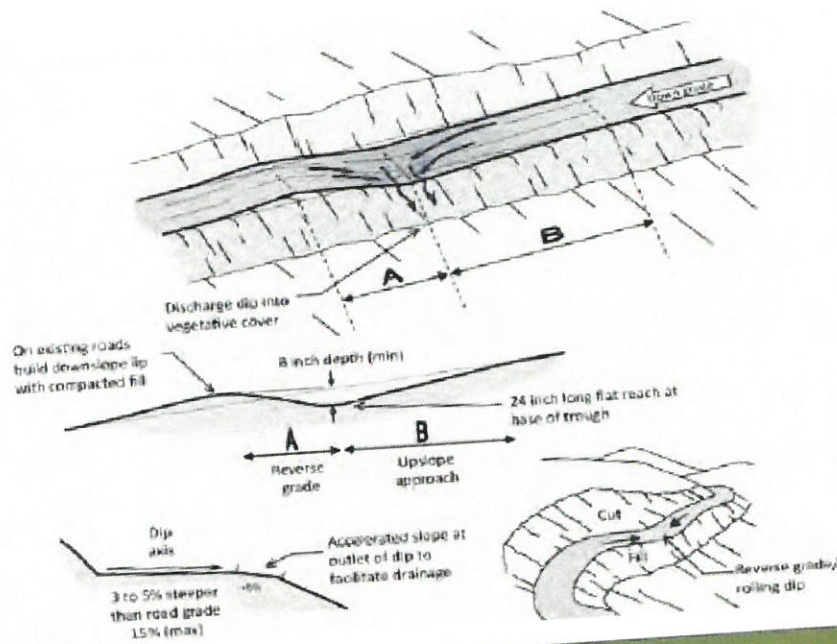


FIGURE 34. A classic Type I rolling dip, where the excavated up-road approach (B) to the rolling dip is several percent steeper than the approaching road and extends for 60 to 80 feet to the dip axis. The lower side of the structure reverses grade (A) over approximately 15 feet or more, and then falls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

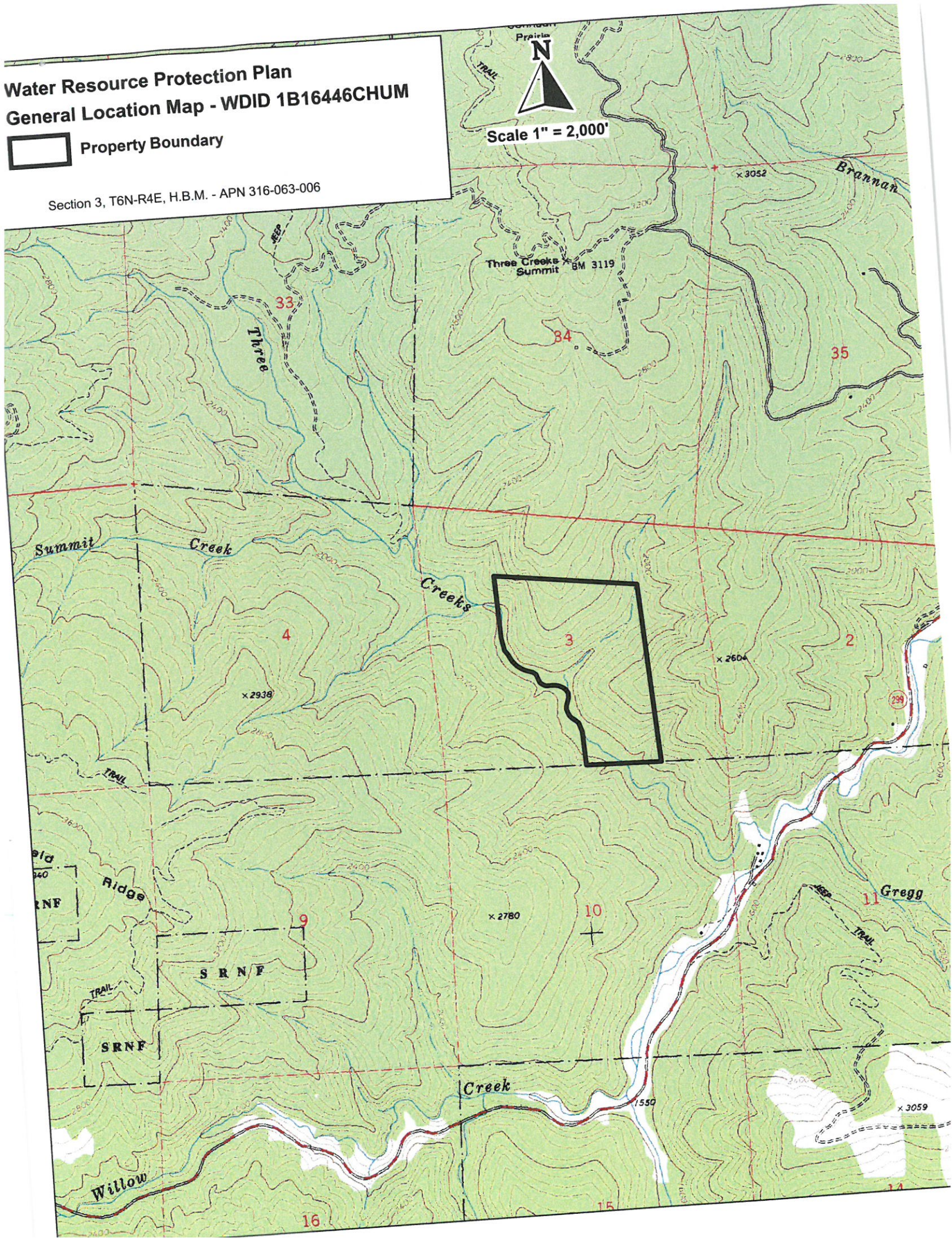
WDID 1B16446CHUM

Water Resource Protection Plan General Location Map - WDID 1B16446CHUM

 Property Boundary

Section 3, T6N-R4E, H.B.M. - APN 316-063-006
















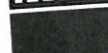


Scale 1" = 2,000'



Water Resource Protection Plan

WRPP Map - WDID 1B16446CHUM

NORTH
1" = 300'

- | | | | |
|---|----------------------|---|------------------------------------|
|  | Property Boundary |  | Cultivation Areas - Greenhouses |
|  | Access Roads |  | Cultivation Area - 20 outdoor pots |
|  | ATV Access Trail |  | Shop / Storage |
|  | Class II Watercourse |  | Small Storage Shed / Out building |
|  | Class I Watercourse |  | Cultivation Soils (tarped) |
|  | Point of Diversion |  | House |
|  | Water Tanks |  | Unstable Area |
|  | Developed Area |  | 30' x 30' Wooden Deck |
|  | Map Points | | |
|  | Road Segment | | |

Sec. 3, T6N-R4E, H.B.M. APN 316-063-006 6/1/16

