Water Resource Protection Plan
For
WDID 1B171682CHUM

Submitted to:

Dean Crisp

Prepared by:

Timberland Resource Consultants
165 South Fortuna Blvd
Fortuna, CA 95540

11-24-2017

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.

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☒

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
Permanent and Seasonal Roads	Surface drainage of roads.	A(1)(a)	N/A	Maintain or reconstruct worn down water breaks, rolling dips, and drainage outs as needed. Water breaks shall be in sufficient numbers to disperse drainage prior to it reaching a watercourse.	2	Prior to 11/15 of each year.	
RP 17	Road surface runoff in close proximity of watercourse.	A(1)(e)	N/A	In addition to the installation of the Rocked Rolling Dip at RP 17, install straw wattles for 100 feet along the outboard edge of the road.	2	Prior to 11/15 of each year.	
RP 1 through 68	Road surface drainage / Watercourse Crossings	A(1) and A(2)	N/A	See Conversion Mitigation Points at the end of this report for RP 1 through RP 68. Maintain existing watercourse crossings per approved Streambed Alteration Agreements.	3	11/18/17	
Cultivation Areas 2, 3, 4, 5, and 8	Cultivation Areas encroaching into streamside buffers	A(3)	N/A	See Mitigation Measures for Cultivation Areas 2, 3, 4, 5, and 8 listed in the Standard Conditions Assessment Section of this Report.	3	11/15/18	

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
"Used Cultivation Soils"	Cultivation soils piles	A(4) and A(7)	N/A	-Monitor the downslope edges of cultivation areas, soils piles, and install straw wattles as necessary to contain spoils. -Keep cultivation soils covered during periods of prolonged rain. Limit cultivation soil storage sites to stable locations and where they are not in contact with surface runoff.	2	N/A	
House / Attached Garage (Septic System)	Septic Systems	A(11)	N/A	Septic systems on the property 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.	4	As soon as possible, Prior to expiration of the Order, 2020	

For RP 1 through 68 on the WRPP Map, See mitigation measures at the end of the report from the Discharger's Conversion Mitigation Plan

Water Diversion from a surface source and work in a stream shall follow the requirements of Streambed Alteration Agreements 1600-2016-0109-R1, 1600-2016-0110-R1, and 1600-2016-0111-R1. Prior to crossing replacement work, the Discharger is also required to submit information required in Appendix D of the Order and get authorization from the Regional Water Quality Control Board.

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) by December 15 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 (Humboldt County) APN 315-092-007, 315-093-006, and 315-094-003 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, and as disclosed to Timberland Resource Consultants by the landowner and / or the 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.

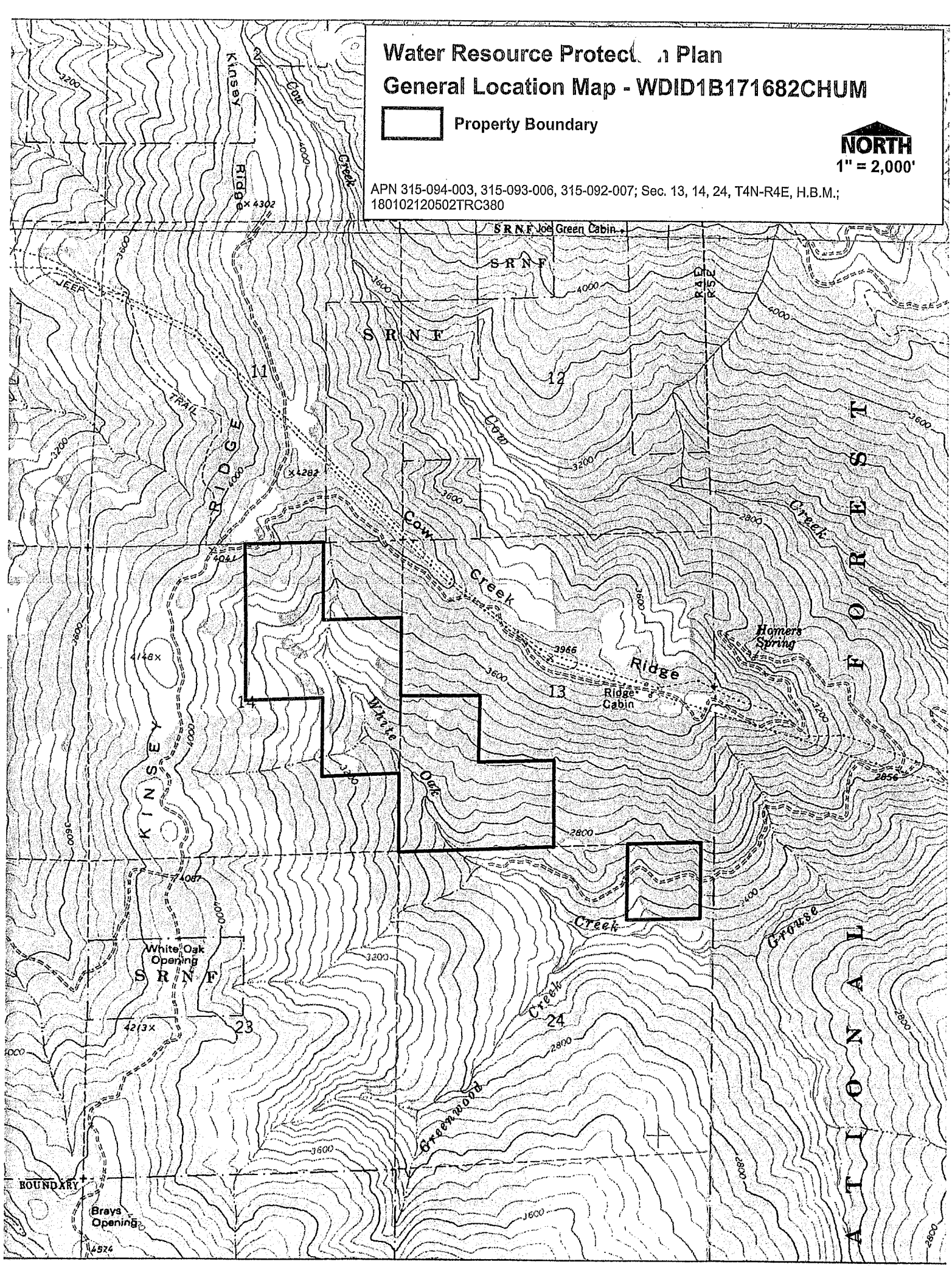
Ron Pelletier
Timberland Resource Consultants

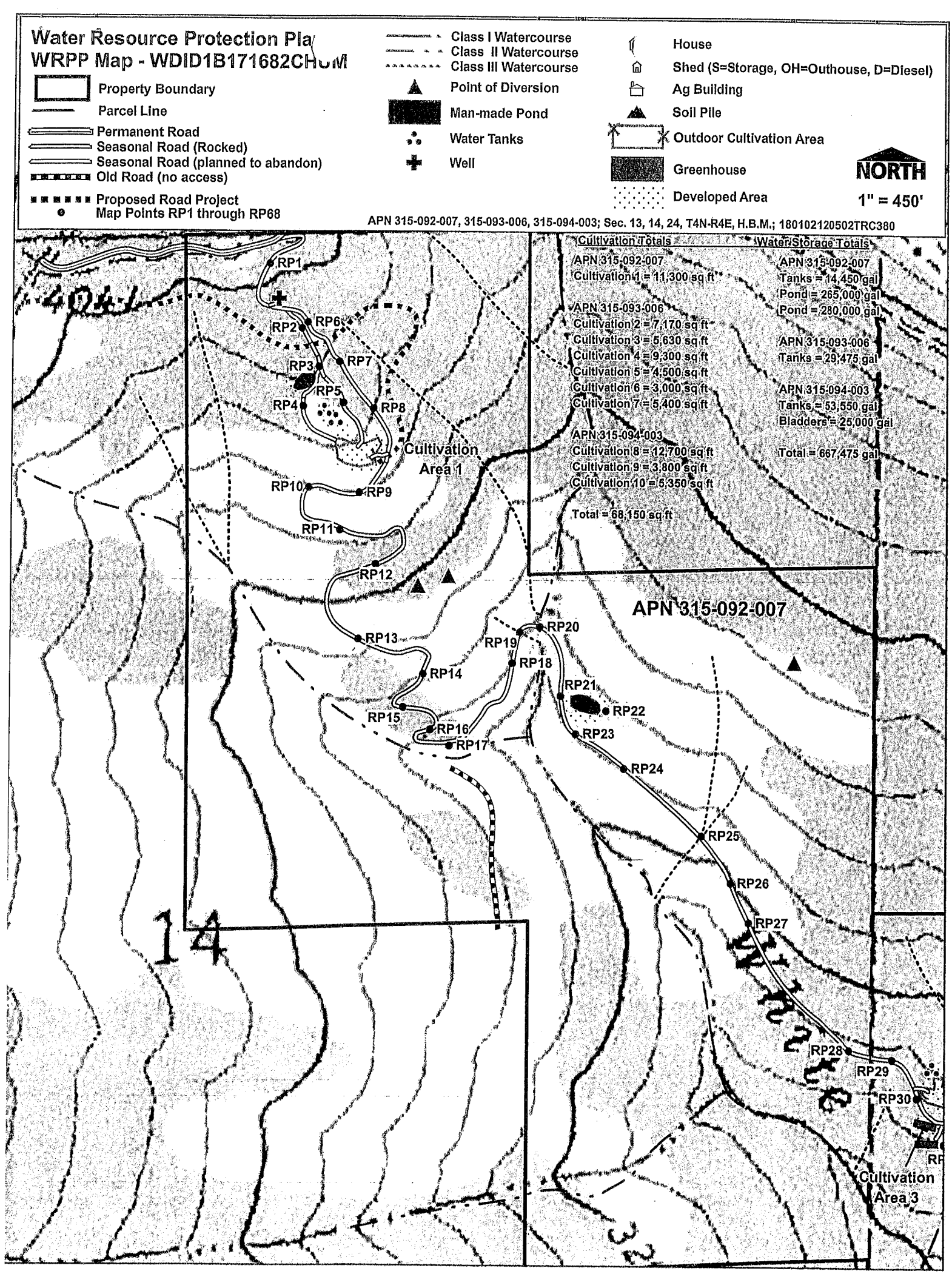
Water Resource Protect. .n Plan
General Location Map - WDID1B171682CHUM

Property Boundary

NORTH
1" = 2,000'

APN 315-094-003, 315-093-006, 315-092-007; Sec. 13, 14, 24, T4N-R4E, H.B.M.;
180102120502TRC380




Water Resource Protection Pla
WRPP Map - WDID1B171682CHOM
Property Boundary
Parcel Line
Permanent Road
Seasonal Road (Rocked)
Seasonal Road (planned to abandon)
Old Road (no access)
Proposed Road Project
Map Points RP1 through RP68
Class I Watercourse
Class II Watercourse
Class III Watercourse
Point of Diversion
Man-made Pond
Water Tanks
Well
House
Shed (S=Storage, OH=Outhouse, D=Diesel)
Ag Building
Soil Pile
Outdoor Cultivation Area
Greenhouse
Developed Area
NORTH
1" = 450'
APN 315-092-007, 315-093-006, 315-094-003; Sec. 13, 14, 24, T4N-R4E, H.B.M.; 180102120502TRC380
Cultivation Totals
APN 315-092-007
Cultivation 1 = 11,300 sq ft
APN 315-093-006
Cultivation 2 = 7,170 sq ft
Cultivation 3 = 5,630 sq ft
Cultivation 4 = 9,300 sq ft
Cultivation 5 = 4,500 sq ft
Cultivation 6 = 3,000 sq ft
Cultivation 7 = 5,400 sq ft
APN 315-094-003
Cultivation 8 = 12,700 sq ft
Cultivation 9 = 3,800 sq ft
Cultivation 10 = 5,350 sq ft
Total = 68,150 sq ft
Water Storage Totals
APN 315-092-007
Tanks = 14,450 gal
Pond = 265,000 gal
Pond = 280,000 gal
APN 315-093-006
Tanks = 29,475 gal
APN 315-094-003
Tanks = 53,550 gal
Bladders = 25,000 gal
Total = 667,475 gal
RP1
RP2
RP3
RP4
RP5
RP6
RP7
RP8
RP9
RP10
RP11
RP12
RP13
RP14
RP15
RP16
RP17
RP18
RP19
RP20
RP21
RP22
RP23
RP24
RP25
RP26
RP27
RP28
RP29
RP30
Cultivation Area 1
Cultivation Area 3
APN 315-092-007
14

Water Resource Protection Pla
WRPP Map - WDID1B171682CHuM

- Property Boundary
- Parcel Line
- Permanent Road
- Seasonal Road (Rocked)
- Seasonal Road (planned to abandon)
- Old Road (no access)
- Proposed Road Project
- Map Points RP1 through RP68

- Class I Watercourse
- Class II Watercourse
- Class III Watercourse
- Point of Diversion
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- Water Tanks
- Well

- House
- Shed (S=Storage, OH=Outhouse, D=Diesel)
- Ag Building
- Soil Pile
- Outdoor Cultivation Area
- Greenhouse
- Developed Area

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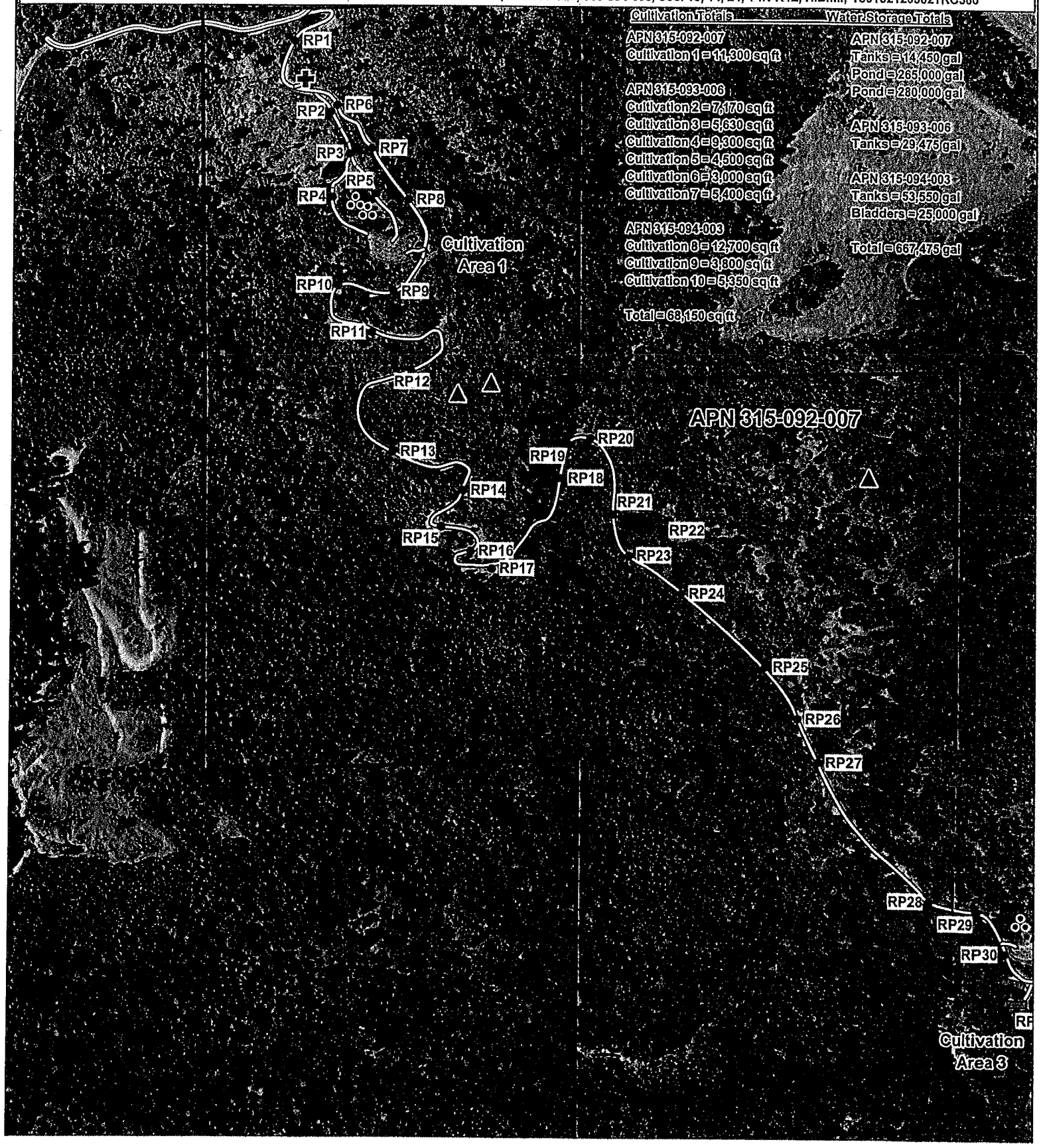

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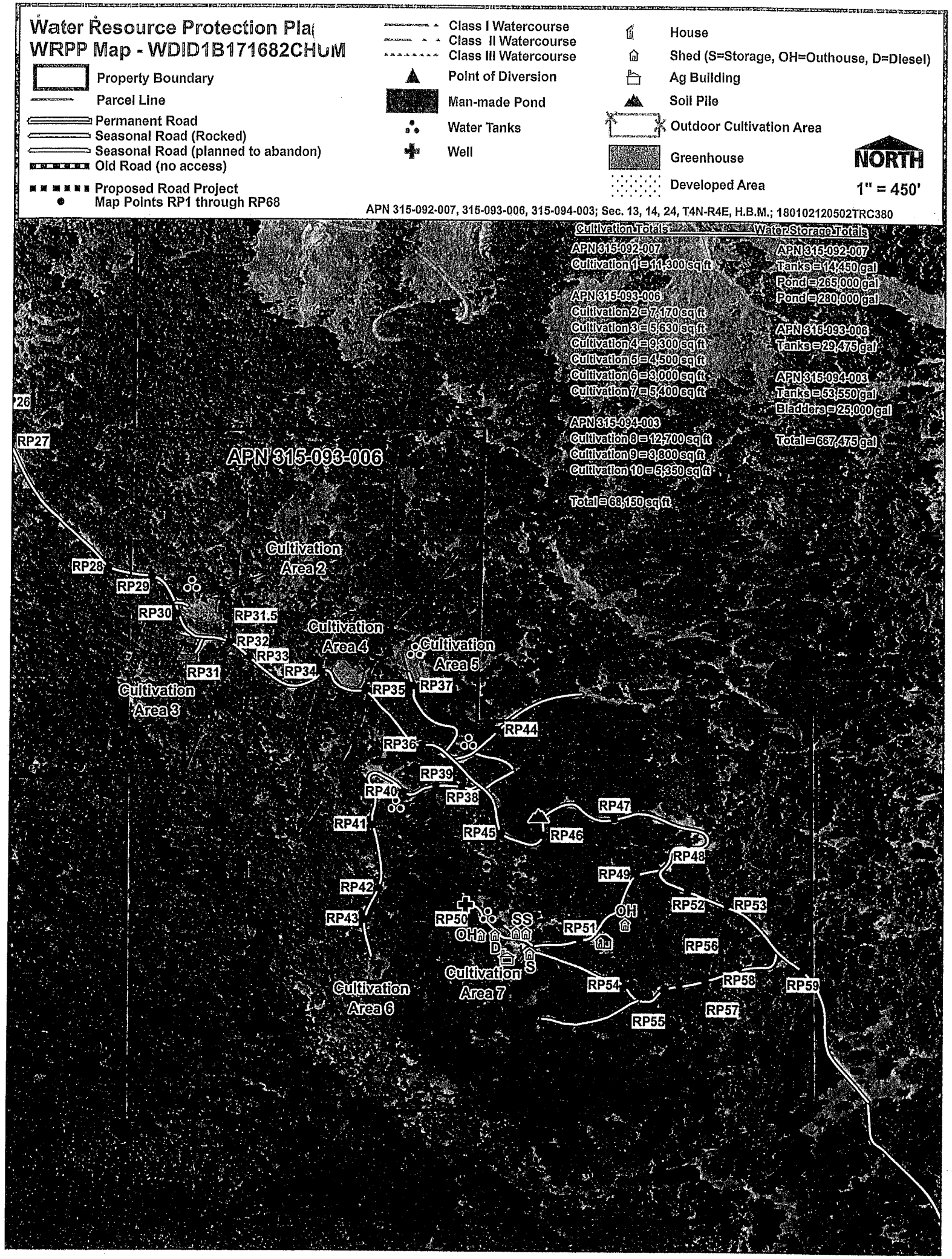
RP27 RP28 RP29 RP30 RP31 RP31.5 RP32 RP33 RP34 RP35 RP36 RP37 RP38 RP39 RP40 RP41 RP42 RP43 RP44 RP45 RP46 RP47 RP48 RP49 RP50 RP51 RP52 RP53 RP54 RP55 RP56 RP57 RP58 RP59

Cultivation Area 2
Cultivation Area 3
Cultivation Area 4
Cultivation Area 5
Cultivation Area 6
Cultivation Area 7

SS
OH
D
S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RP32
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RP34
RP35
RP36
RP37
RP38
RP39
RP40
RP41
RP42
RP43
RP44
RP45
RP46
RP47
RP48
RP49
RP50
RP51
RP52
RP53
RP54
RP55
RP56
RP57
RP58
RP59
Cultivation Area 2
Cultivation Area 3
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Water Resource Protection Plan
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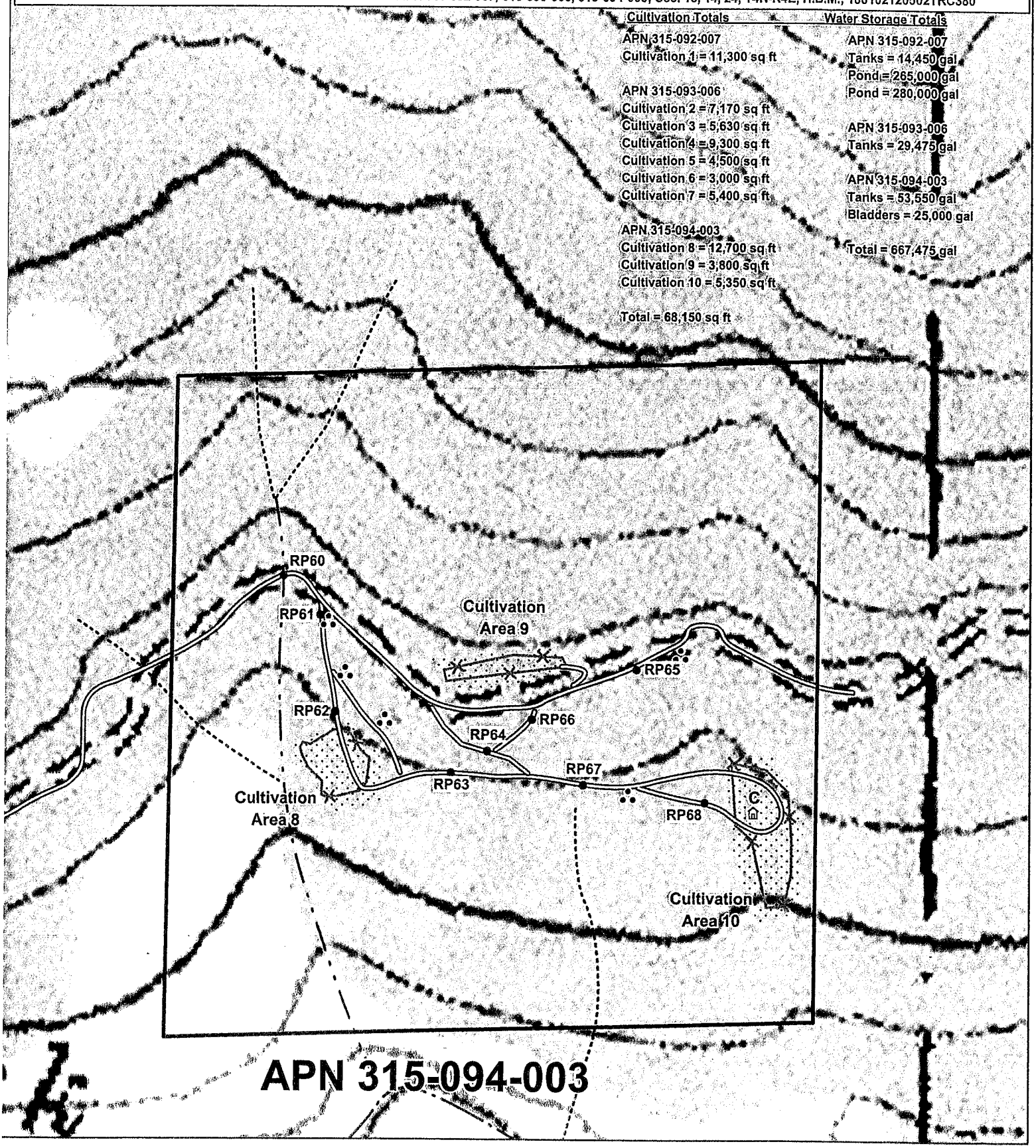

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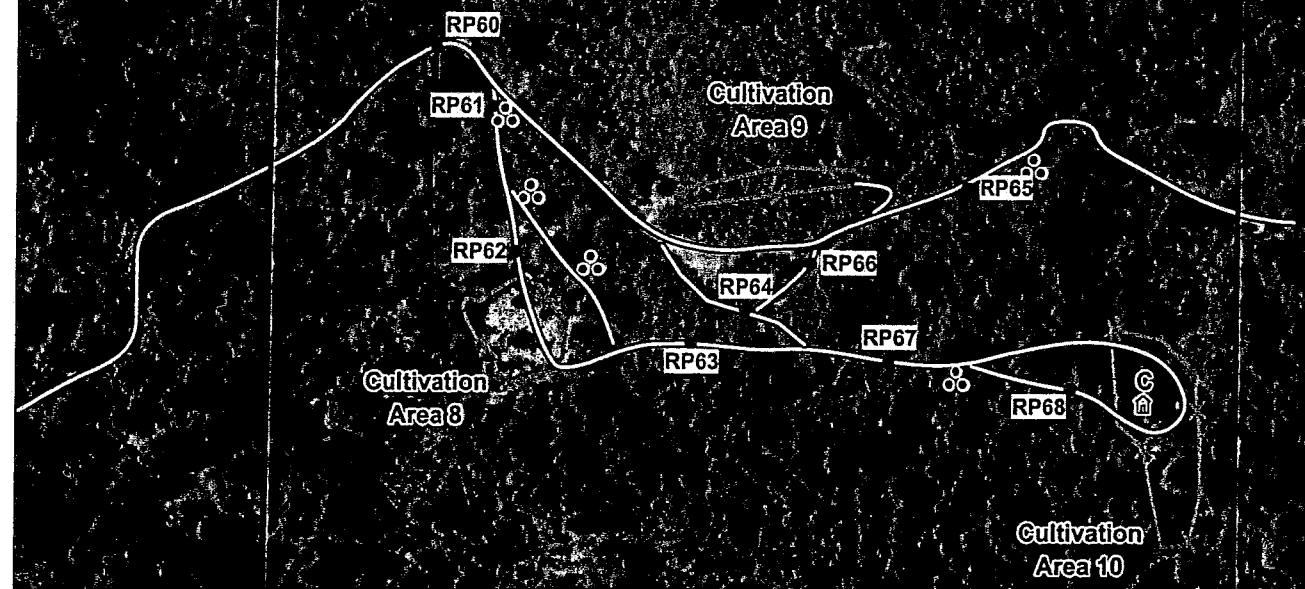

APN 315-094-003

Water Resource Protection Plan

Assessment of Standard Conditions for APN 315-092-007, 315-093-006, 315-094-003 – WDID 1B171682CHUM

Prior to enrolling in the North Coast Regional Water Quality Control Board's Order No. 2015-0023, (Waiver of Waste Discharge Requirements and General Water Quality Certification for Discharges of Waste Resulting from Cannabis Cultivation and Associated Activities or Operations with Similar Environmental Effects), the Landowner / Discharger had hired consultants to prepare documents required by the Humboldt County Commercial Medical Marijuana Land Use Ordinance. A Less Than Three Acre Conversion Mitigation Plan was prepared by a Registered Professional Forester (RPF). This report contains recommendations necessary to bring conversion areas (cultivation areas) and their access roads into compliance with the Forest Practice Rules. It contains sixty-eight road points (RP 1 through 68) designed to improve road surface drainage and to improve existing watercourse crossings. It also contains mitigation measures necessary for cleared cultivation areas located within the standard watercourse and lake protection zone. A Non-Industrial Timber Management Plan (NTMP) is currently being prepared.

Trinity Valley Consulting Engineers has prepared grading plans, site mapping, and soils reports for the prior and proposed site grading, the future road abandonment and construction project, and proposed building and septic sites. These plans and reports contain numerous mitigation and erosion control measures for these parcels.

The Discharger has three approved CA Dept. of Fish and Wildlife Streambed Alteration Agreements (Agreements) on these parcels (Notification No. 1600-2016-0109-R1, 1600-2016-0110-R1, and 1600-2016-0111-R1). These Agreements allow for construction of new watercourse crossings as well as the maintenance of existing rocked ford crossings and an existing culverted watercourse crossing. The Agreements also allow for ponds for water storage, three diversions from springs, and a diversion from a Class II watercourse. The Discharger is in possession of these signed agreements and intends on complying with their requirements.

These prior reports, plans, and permits were reviewed during the preparation of this Water Resource Protection Plan (WRPP). The Discharger is in possession of these reports and is aware of their protection measures. In many instances, the corrective actions recommended in these prior reports were appropriate for inclusion in this WRPP for compliance with this Order. To try and eliminate duplicative map points, Road Points 1 through 68 from the Less Than Three Acre Conversion Mitigation Plan are shown on the WRPP Map. Their associated mitigation measures from that report are attached at the end of this document. This WRPP also contains additional mitigation measures as necessary to gain compliance with this Order.

A. Standard Conditions, Applicable to All Dischargers

1. Site maintenance, erosion control and drainage features: **In 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.

   The seasonal access roads on the property are mainly outsloped and very rocky. Most of the roads appeared to be adequately drained during the time of the site visit. There are numerous water break and drainage out locations along the roads, that have become worn down due to normal summertime road use. In the vicinity of RP 7 through RP 16 on the WRPP Map, minor surface rutting had begun to occur. The Discharger shall maintain or reconstruct worn down water breaks, rolling dips, and drainage outs as needed on all roads and trails shown on the WRPP Map as necessary to prevent surface rutting.

   The previously prepared Less Than Three Acre Conversion Mitigation Plan contains numerous road points, many of which are prescribed for road surface drainage. These road points have been shown on the WRPP Map and the mitigation for each point is attached at the end of this report. Also, the Discharger has engineered grading plans from Trinity Valley Consulting Engineers for the abandonment of the existing access road and construction of a new access roads in the vicinity of RP 1 through 9.

   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.

   Surface drainage of the seasonal roads has been addressed above. Roads are outsloped and drained by numerous water break and drainage out locations. Some of these have become worn down through summertime use. The Discharger shall construct or reconstruct worn down water breaks (water bars) as needed on all roads and trails shown on the WRPP Map as necessary to prevent rutting. Also see RP 1 through 68 on the WRPP Map and the road points mitigations attached at the end of this report.

   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 unstable areas per 14CCR 895.1. Developed areas, cultivation areas, and roads are located on the natural benches, ridgetops, and areas gentler slopes that did not require grading of deep cuts and fills. Steeper slopes on the property are undeveloped and are vegetated and timber covered. Runoff from roads and developed areas on the property are not being directed towards unstable slopes or earthen fills.

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 disconnected[1], 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)

Most of the roads on the property are hydrologically disconnected, as feasible, from surface waters. As stated above, there are numerous water break and drainage out locations along the roads that have become worn down due to normal summertime road use. The Discharger shall maintain or reconstruct worn down water breaks, rolling dips and drainage outs as needed on all roads and trails shown on the WRPP Map. Also see RP 1 through 68 on the WRPP Map and the road points mitigations attached at the end of this report. There are several locations where cultivation areas are located in close proximity to watercourses. These locations and mitigations are identified in A.1.3. below.

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.

As stated above, there are numerous waterbreak and drainage out locations that have become worn down due to normal summertime road use. The Discharger shall maintain or reconstruct worn down water breaks, rolling dips, and drainage outs as needed on all roads and trails shown on the WRPP Map. In addition, there are numerous rocked rolling dips being proposed in the previously prepared Conversion Mitigation Plan, prepared by an RPF. These locations are shown in this WRPP.

The segment of road immediately west of RP 17 is located approximately 30 feet from the Class II watercourse. This road segment is near level grade and the area between the road and the watercourse is heavily vegetated and covered with duff. During the site visit for preparation of this WRPP, the outboard edge of the road near RP 17 was covered with fine sediment. The sediment is the result of dust from normal summertime use flowing down the road in the first rains of the season. In addition to the installation of the Rocked Rolling Dip at RP 17, the Discharger shall install straw wattles for 100 feet along the outboard edge of the road.

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: **In compliance? Y☒/N☐**

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

[2]At a minimum, the culvert shall be aligned at the inlet. If infeasible to align the culvert outlet with the stream grade or channel, outlet armoring or equivalently effective means may be applied.
[3]If infeasible to install a critical dip, an alternative solution may be chosen.

There is a total of 14 watercourse crossings mapped on this property. They are located along the active, permanent roads on this property. The watercourse crossing at RP 60 is a permanent culvert and the remaining ones are existing rocked ford crossings. These crossings have all been assessed prior to this site visit by an RPF in preparation of a Conversion Mitigation Plan for the Discharger. In his plan, the RPF gives recommendations as to the size of the rock needed for compliance with the forest practice rules. In most instances these crossings appeared to have been upgraded to these standards. The Discharger also has three CA Dept. of Fish and Wildlife Streambed Alteration Agreements on these parcels (Notification No. 1600-2016-0109-R1, 1600-2016-0110-R1, and 1600-2016-0111-R1). These Agreements allow for the maintenance of many of the existing crossings and for the construction of crossings that have been engineered and are part of future grading plans.

RP 20, 32, and 35: These crossings are all existing rocked ford crossings of Class II watercourses. These crossings are in compliance with the standard conditions above. These crossings should be maintained per the recommendations stated in the Conversion Mitigation Plan at the end of this report.

RP 19, 25, 34, 49, 53, and 55 through 59: These are all existing rocked ford crossings of Class III watercourses. These crossings are in compliance with the standard conditions above. These crossings should continue to be maintained per the recommendations stated in the Conversion Mitigation Plan at the end of this report.

RP 60: This is a permanent 36 inch diameter culvert crossing of a Class II watercourse. It is in compliance with the standard conditions above. This culvert was also assessed as part of the Conversion Mitigation Plan that is included at the end of this report. This report calls for the continued maintenance of this culvert. This crossing is also included in a CA Dept. of Fish and Wildlife Streambed Alteration Agreement (Notification No. 1600-2016-0109-R1). The agreement calls for maintenance of this existing culvert by adding fill above the top of the culvert to disperse the load of vehicles and by adding rock armor to the inlet and the outlet.

3. Riparian and Wetland Protection and Management: **In compliance? Y☐/N☒**

   a. For Tier 1 Dischargers, cultivation areas or associated facilities shall not be located within 200 feet of surface waters. While 200 foot buffers are preferred for Tier 2 sites, at a minimum, cultivation areas and associated facilities shall not be located or occur within 100 feet of any Class I or II watercourse or within 50 feet of any Class III watercourse or wetlands. The Regional Water Board or its Executive Officer may apply additional or alternative[4] 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.

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[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.

A named Class I watercourse (White Oak Creek) is located within two of these parcels. The nearest cultivation areas are approximately 250 to 300 feet from White Oak Creek (Cultivation Areas 3 and 5). There are numerous Class II and III watercourses as well as ten separate Cultivation Areas located on these parcels. The Cultivation Areas are labeled 1 through 10 on the WRPP Maps. Cultivation areas 1, 6, 7, 9, and 10 are in compliance with the Standard Conditions above. These are all outside of buffer zones.

Cultivation Areas 2, 3, 4, 5, and 8 encroach into streamside buffers and therefore are not in compliance with the Standard Conditions above. The Less Than Three Acre Conversion Mitigation Plan prepared by an RPF for these parcels includes mitigation measures and mapping for each of these locations to become in compliance with the Forest Practice Rules. In some instances Forest Practice Rules buffer widths are less than those listed in the Standard Conditions. This is due to the fact that Forest Practice Rules buffer zone widths vary depending on the steepness of slopes leading to their given watercourse. Buffer zone widths listed in the Standard Conditions above are 50 feet or 100 feet depending on classification and regardless of slope. Each of the separate Cultivation Areas listed below encroach into a watercourse buffer zone. The mitigation measure from the Less Than Three Acre Conversion Mitigation Plan is listed below along with additional mitigation to bring each of these areas into compliance with the Standard Conditions.

<u>Cultivation Area 2 Mitigation:</u>

- **<u>Conversion Mitigation Plan</u> – Pull back all cultivation activities 50 feet from nearby Class II watercourse. Seed and mulch all exposed soil within 50 feet of Class II watercourse. At RP 31.5, remove grow residues from watercourse to prevent organic particulates and perlite from entering watercourses (see detailed mapping on page 23 of Conversion Mitigation Plan).**

- Additional Mitigation for Standard Condition Compliance – Prior to 11/15/18, pull back all cultivation activities 100 feet from nearby Class II watercourse. Seed and mulch all exposed soil within 100 feet of Class II watercourse. Refrain from cultivating within 100 feet of the Class II watercourse in 2019.

Cultivation Area 3 Mitigation:

- Conversion Mitigation Plan – Keep all cultivation activities 50 feet from nearby Class III watercourse channel. At RP 31, remove grow residues from ditch to prevent organic particulates and perlite from entering watercourses (see detailed mapping on page 23 of Conversion Mitigation Plan).

- Additional Mitigation for Standard Condition Compliance – None.

Cultivation Area 4:

- Conversion Mitigation Plan – Pull back all cultivation activities 50 feet from nearby Class II watercourse. Seed and mulch all exposed soil within 50 feet of Class II watercourse. Pull back all cultivation activities 30 feet from nearby Class III watercourse. Seed and mulch all exposed soil within 30 feet of Class III watercourse (see detailed mapping on page 24 of Conversion Mitigation Plan).

- Additional Mitigation for Standard Condition Compliance – Prior to 11/15/18, pull back all cultivation activities 100 feet from nearby Class II watercourse. Seed and mulch all exposed soil within 100 feet of Class II watercourse. Refrain from cultivating within 100 feet of the Class II watercourse in 2019.

- Prior to 11/15/18, pull back all cultivation activities 50 feet from nearby Class III watercourse. Seed and mulch all exposed soil within 50 feet of Class III watercourse. Refrain from cultivating within 50 feet of the Class III watercourse in 2019.

Cultivation Area 5 Mitigation:

- Conversion Mitigation Plan – Pull back all cultivation activities 75 feet from nearby Class II watercourse channel. Seed and mulch all exposed soil within 75 feet of Class II watercourse (see detailed mapping on page 24 of Conversion Mitigation Plan).

- Additional Mitigation for Standard Condition Compliance – Prior to 11/15/18, pull back all cultivation activities 100 feet from nearby Class II watercourse. Seed and mulch all exposed soil within 100 feet of Class II watercourse. Refrain from cultivating within 100 feet of the Class II watercourse in 2019.

Cultivation Area 8 Mitigation:

- **Conversion Mitigation Plan – Pull back all cultivation activities 75 feet from nearby Class II watercourse channel. Seed and mulch all exposed soil within 75 feet of Class II watercourse channel (see detailed mapping on page 27 of Conversion Mitigation Plan). Rock drainage outlet with 4 to 6 inch diameter rock.**

- **Additional Mitigation for Standard Condition Compliance – Prior to 11/15/18, pull back all cultivation activities 100 feet from nearby Class II watercourse. Seed and mulch all exposed soil within 100 feet of Class II watercourse. Refrain from cultivating within 100 feet of the Class II watercourse in 2019.**

4. Spoils Management: **In compliance? Y☒/N☐**

   a. Spoils[5] 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.

The property is in compliance with this Standard Condition. There was a single, used cultivation soil pile located during the site assessment. It shown on the WRPP Map. Used cultivation soil also remains in pots within the framework of greenhouses and within pots or holes in the ground in the outdoor cultivation areas. Cultivation soils are reamended prior to each growing season. There was no sign of cultivation soils being transported off of developed cultivation areas or downslope. To ensure that this remains the case, the Discharger shall monitor the downslope edges of cultivation areas and the Used Cultivation Soils piles, and install straw wattles as necessary to keep spoils contained. Also keep cultivation soils covered with tarps during periods of prolonged rain. Cultivation soil storage sites should be limited to stable locations and locations where they are not in contact with surface runoff.

5. Water Storage and Use: **In compliance? Y☒/N☐**

   a. Size and scope of an operation shall be such that the amount of water used shall not adversely impact water quality and/or beneficial uses, including and in consideration with other water use by operations, instream flow requirements and/or needs in the watershed, defined at the scale of a HUC-12[6] 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.

[6]See 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.

Water Storage and Use: **The Discharger is in the process of obtaining permits from the county for approximately 68,000 square feet of cannabis cultivation on these parcels. The Discharger projects total water use to be approximately 270,000 gallons per year. The main source of irrigation water are two rain catchment ponds that together total approximately 545,000 gallons. In addition, there are also approximately 122,000 gallons of storage in tanks and bladders stationed throughout the parcels. There are also two permitted wells on the parcels, and four surface diversions on the parcels (PODs). Three of the PODs are springs and one is a waterline intake in a seasonal Class II watercourse. The PODs are included in approved CDFW Streambed Alteration Agreements.**

Standard Conditions 5, a. – f.: **(a) The surface diversions (POD) from the Class II watercourse and springs on the property are included in the CDFW Streambed Alteration Agreements (No. 1600-2016-0109-R1, 1600-2016-0110-R1, and 1600-2016-0111-R1). The Agreements do not allow for water diversion during the period between May 15 and October 15 of any year. The Discharger plans on following the conditions of these signed Agreements. The Discharger has two permitted wells on the property that along with the two rain catchment ponds will serve the needs on the property during the forbearance period. The Discharger is applying for permits from the county for 68,000 square feet of cannabis on these parcels, and projects a water usage of approximately 270,000 gallons per year. Combining rain catchment ponds, water tanks, and bladders, there are approximately 667,000 gallons of water storage available on these parcels.**

(b) and (c) The Discharger practices water conservation and avoids diverting water from a surface water source during the low flow period. There are two permitted wells located on the parcels. Water storage includes two rain catchment ponds and several water tanks and bladders which total an estimated 667,000 gallons. Water usage is projected to be 270,000 gallons per year. The Discharger closely monitors irrigation to ensure that over watering does not take place and to quickly discover and correct any possible malfunction.

(d) The Discharger irrigates at an agronomic rate. Irrigation does not result in over watering or irrigation runoff.

(e) Diversion and storage from a stream is conducted in accordance with a Small Domestic Use Registration. Irrigation is attained rom wells and rain catchment.

(f) The water storage tanks and bladders are situated on stable locations constructed on gentle, slopes. The two rain catchment ponds were sited and constructed in accordance engineered grading plans and are included in the approved CDFW Streambed Alteration Agreements.

6. Irrigation Runoff: **In 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.

In compliance at this time. The Discharger irrigates at an agronomic rate that does not result in runoff. This combined with the proximity of cultivation areas from watercourses, ensures there is little to no chance for any irrigation runoff to reach surface waters.

7. Fertilizers and Soil Amendments: **In compliance? Y☒/N☐**

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

In compliance at this time. In order to remain in compliance with Standard Condition 7, the Discharger shall continue to store all fertilizers, potting soils, composts, and soil amendments in storage sheds or covered by tarps when not in use. Fertilizers and soil amendments are applied per packaging instructions and at agronomic rates. Fertilizing at agronomic rates will help to prevent nutrients from leaving the site during, and after the growing season. When cultivation areas are active, fertilizers and soil amendments are contained in planter pots, bags, or holes in the ground. No cultivation soils, fertilizers, or soil amendments were observed that appeared capable of leaving the site in runoff. To ensure that this remains the case, the Discharger shall install straw wattles as necessary to keep cultivation soils contained to the developed portion of the cultivation areas.

8. Pesticides/Herbicides: **In compliance? Y☒/N☐**

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

products shall be consistent with product labeling and any products on the site shall be placed, used, and stored in a manner that ensures that they will not enter or be released into surface or ground waters.

The Discharger does not use any chemical pesticides and herbicides. If needed in the future, pesticide or herbicide use on the property will be organic and will follow product labelling. Storage of these types of products will be enclosed in the storage sheds for protection against the elements to ensure that they will not enter or be released into the surface or ground waters.

9. Petroleum products and other chemicals: **In compliance? Y☒/N☐**

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

Electricity on the property is supplied by a diesel generator which is connected to a 500 gallon metal diesel tank, equipped with secondary containment and is protected from the weather. Small portable gasoline generators are also used for a portable power supply. Solar panels are when possible to be less reliant on diesel fuel. The Discharger has plans for improvements to his generator and shed. The Discharger takes care to prevent spillage or leakage during refueling of the diesel tank. Gasoline is contained in portable 5 or 10 gallon gas cans and is kept covered within sheds. Portable fuel cans shall be contained within a secondary containment vessel large enough for the entire capacity and covered from precipitation. In order to remain in compliance, the Discharger ensures to adhere to all of the requirements of 9. a. – e. above.

10. Cultivation-related wastes: **In compliance? Y☒/N☐**

Cultivation-related wastes including, but not limited to, empty soil/soil amendment/ fertilizer/pesticide bags and containers, empty plant pots or containers, dead or harvested plant waste, and spent growth medium shall, for as long as they remain on the site, be stored[8] 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.

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

The property is in compliance with this Standard Condition. Cultivation wastes such empty bags and containers are stored short term in an appropriate manner and are periodically taken to the nearest waste disposal location. Dead and harvested plant waste is composted or occasionally burned on or near the cultivation areas. 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 it will not enter or be blown

into surface waters, or it will be removed from the site and disposed of properly. Cultivation-related wastes that contain residues or pollutants shall be stored under cover of sheds or tarps to ensure 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: **In compliance? Y☐/N☒**

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

Currently the sewage disposal method on the property is two outhouses that are shown on the WRPP Map. No apparent nuisance or obvious threat to water quality from the outhouses were identified. In order to be in full compliance with Standard Condition 11.a., domestic sewage disposal on the property 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 (See Appendix B Item 142 of the Order). The Discharger has engineered plans for the construction of a new building and septic system on the property that will meet the county specifications.

The Discharger stores garbage in sealed bags or covered garbage cans with lids and it is taken to the dump on a regular basis. 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, under coverage of a roof, or under tarps during rain. Garbage and refuse shall be disposed of, at an appropriate waste disposal location. See Appendix B. Item 141 of the Order.

12. Remediation/Cleanup/Restoration Remediation/cleanup/restoration activities may include, but are not limited to, removal of fill from watercourses, stream restoration, riparian vegetation planting and maintenance, soil stabilization, erosion control, upgrading stream crossings, road 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.

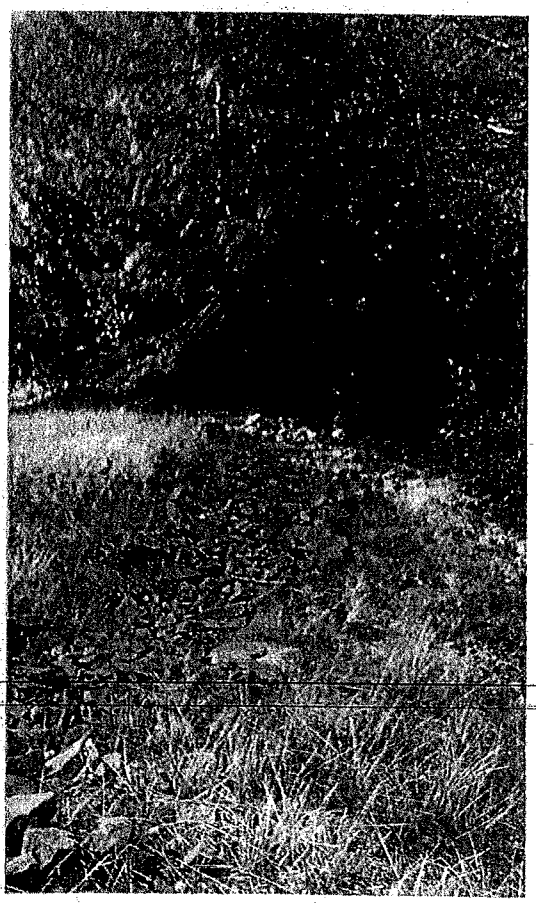
Pictures

Picture 1: The picture is taken at RP 17. Dust from summertime road use results in sediment being deposited on this level section of road during the first rains of the season. A Conversion Mitigation Plan prepared by an RPF proposes rocked rolling dips to be installed at this location and also at eight other locations upslope. Installation of the dips will likely solve this problem. Prior to such time as the dips are installed, the Discharger shall install straw wattles for 100 feet along the outboard edge of the road. This will help to protect against the built up fine sediment being carried towards the watercourse that is out of frame to the right. Photo date 11-9-2017.

Pictures

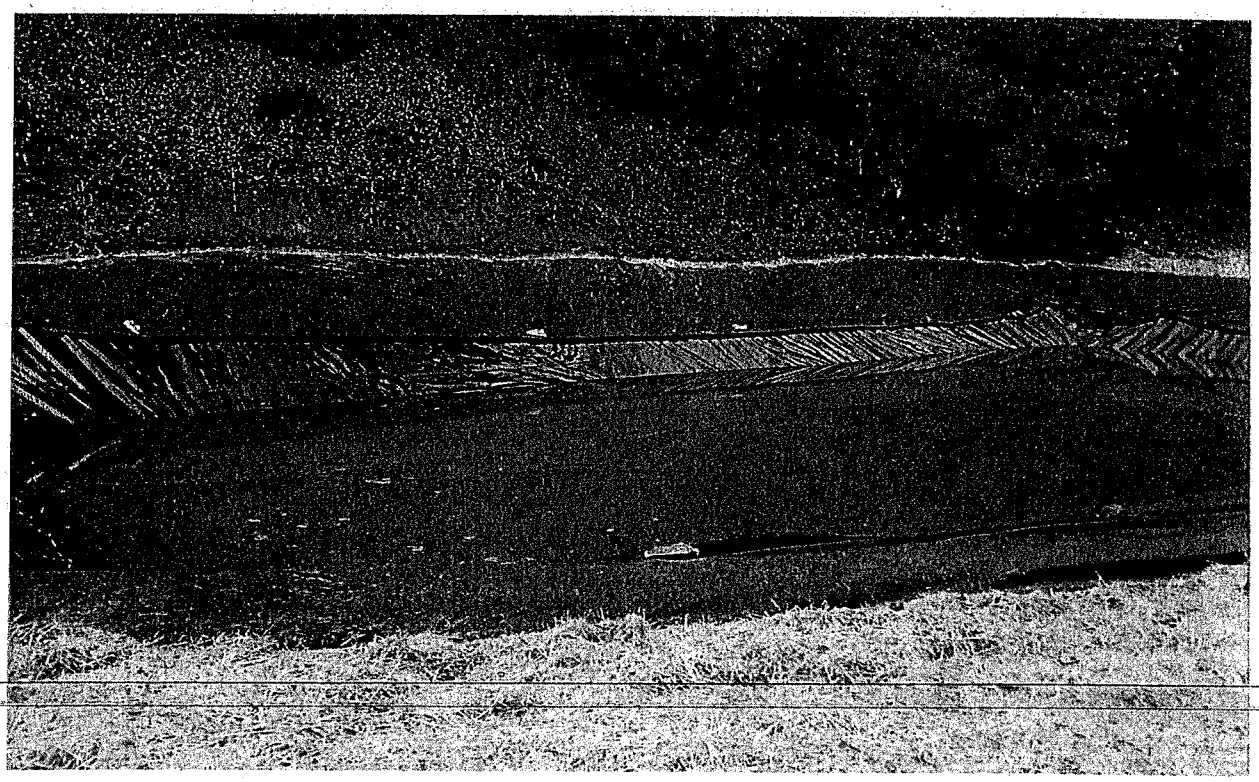
Pictures 2 and 3: The picture on top is the ford crossing at RP 20. The bottom picture is the ford crossing at RP 35. Both are functioning Class II ford crossings that are in compliance with the Standard Conditions. These should continue to be maintained per the Conversion Mitigation Plan at the end of this report. Photo date 11-9-2017.

Pictures



Pictures 4 and 5: These are pictures of the upper rain catchment pond and its associated rocked spillway. Both rain catchment ponds in this plan were sited and constructed in accordance engineered grading plans and are included in the approved CDFW Streambed Alteration Agreements. Photo date 11-9-2017.

Pictures



Picture 6: This is a picture of the lower rain catchment pond. The two rain catchment ponds in this plan were sited and constructed in accordance engineered grading plans and are included in the approved CDFW Streambed Alteration Agreements. Photo date 11-9-2017.

Rolling Dip

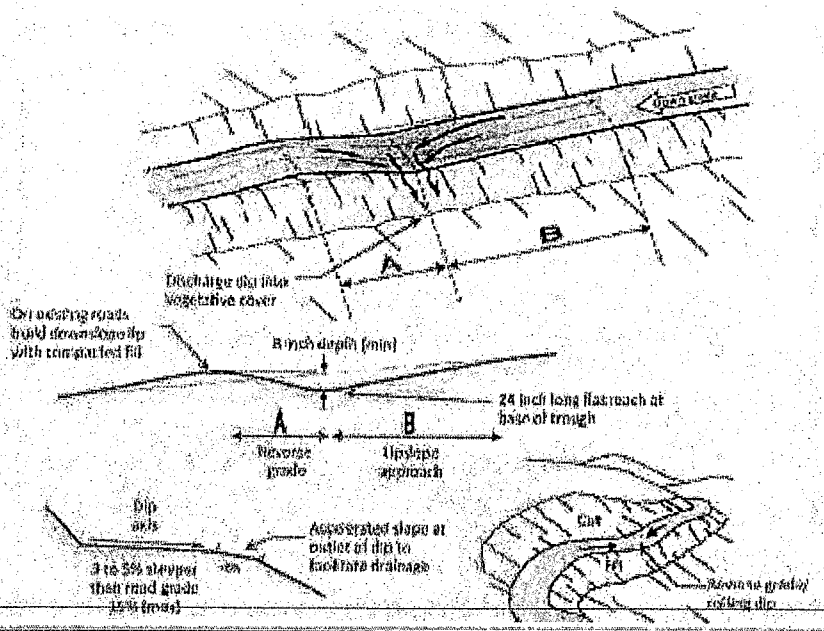


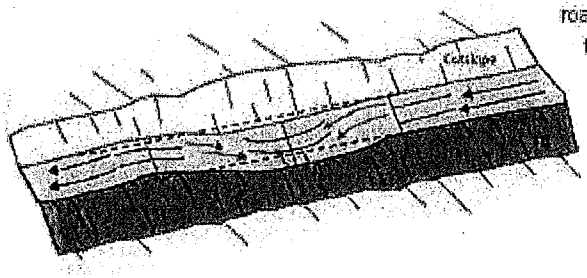
FIGURE 34. *A classic Type I rolling dip, where the excavated up-road approach (B) to the rolling dip is several percent steeper than the approaching road and extends for 60 to 80 feet to the dip axis. The lower side of the structure reverses grade (A) over approximately 15 feet or more, and then falls 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 6% 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

Rolling Dip

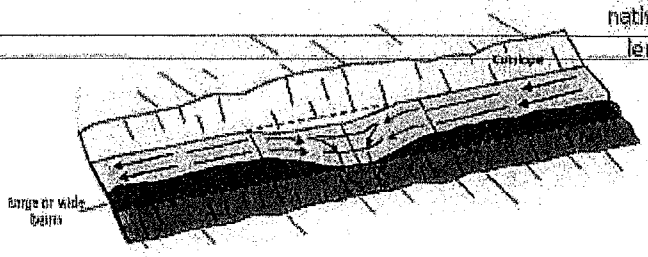
Type 1 Rolling Dip
(Standard)

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



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

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



Type 3 Rolling Dip
(Steep road grade)

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

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

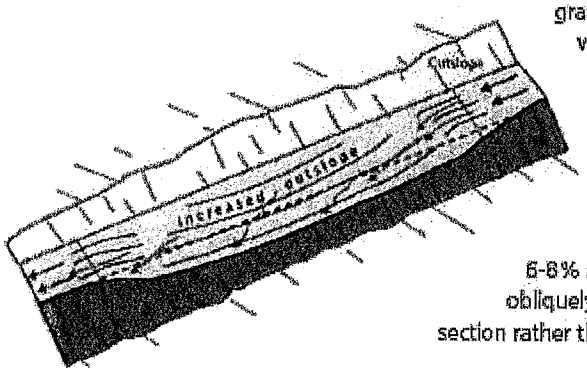


FIGURE 36. *Rolling dip types*

HANDBOOK FOR FOREST, RANCH AND RURAL ROADS

BMP: 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.

BMP: Rolling Dip

- Rolling dips are drainage structures designed to carry surface water across roads.
- The truck road shall dip into and out of the rolling dip to minimize diversion potential.
- The rolling dip shall be constructed with clean native materials.
- The rolling dips outlet may be armored to resist downcutting and erosion.
- 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.

Water Breaks (Water Bars)

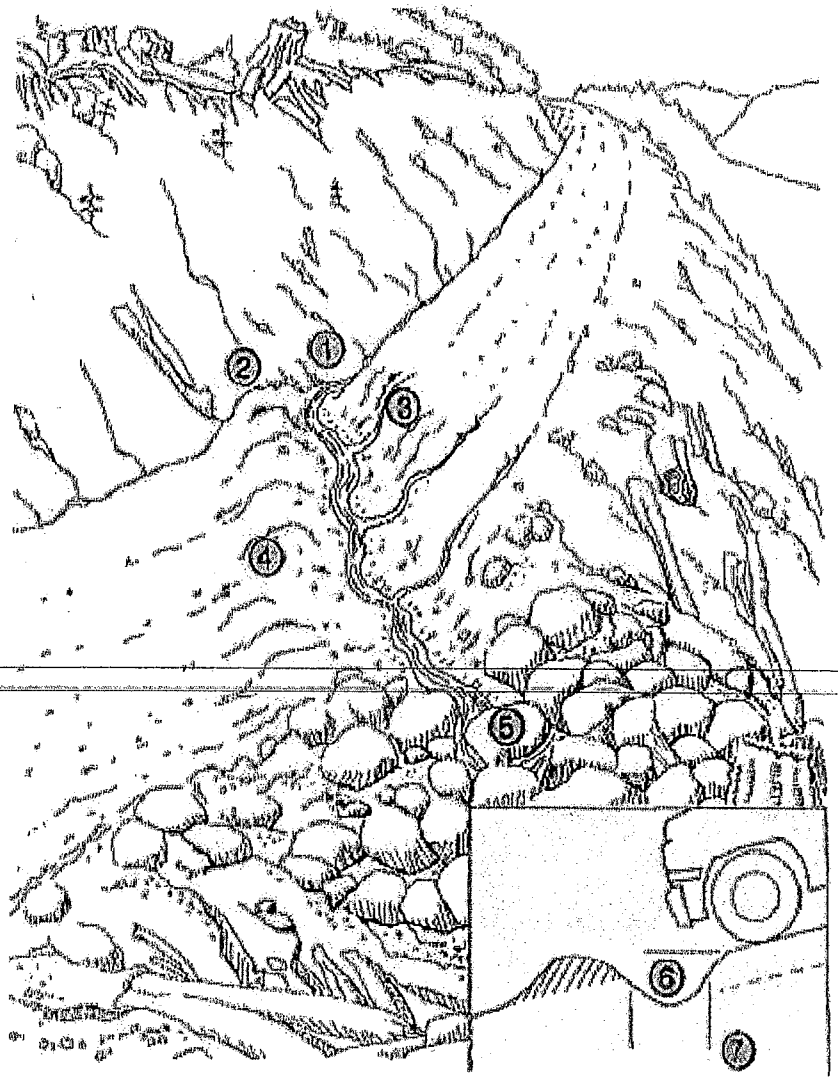


FIGURE 40. *Waterbars are constructed on unsurfaced forest and ranch roads that will have little or no traffic during the wet season. The waterbar should be extended to the outbank to intercept all ditch flow (1) and extend beyond the shoulder of the road. A berm (2) must block and prevent ditch flow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

HANDBOOK FOR FOREST, RANCH, AND RURAL ROADS

Erosion Control Measures

1. Timing for soil stabilization measures within the 100 feet of a watercourse or lake: For areas disturbed from May 1 through October 15, treatment shall be completed prior to the start of any rain that causes overland flow across or along the disturbed surface. For areas disturbed from October 16 through April 30, treatment shall be completed prior to any day for which a chance of rain of 30 percent or greater is forecast by the National Weather Service or within 10 days, whichever is earlier.

2. Within 100 feet of a watercourse or lake, the traveled surface of logging roads shall be treated to prevent waterborne transport of sediment and concentration of runoff that results from operations. Treatment may consist of, but not limited to, rocking, outsloping, rolling dips, cross drains, waterbars, slope stabilization measures, or other practices appropriate to site-specific conditions.

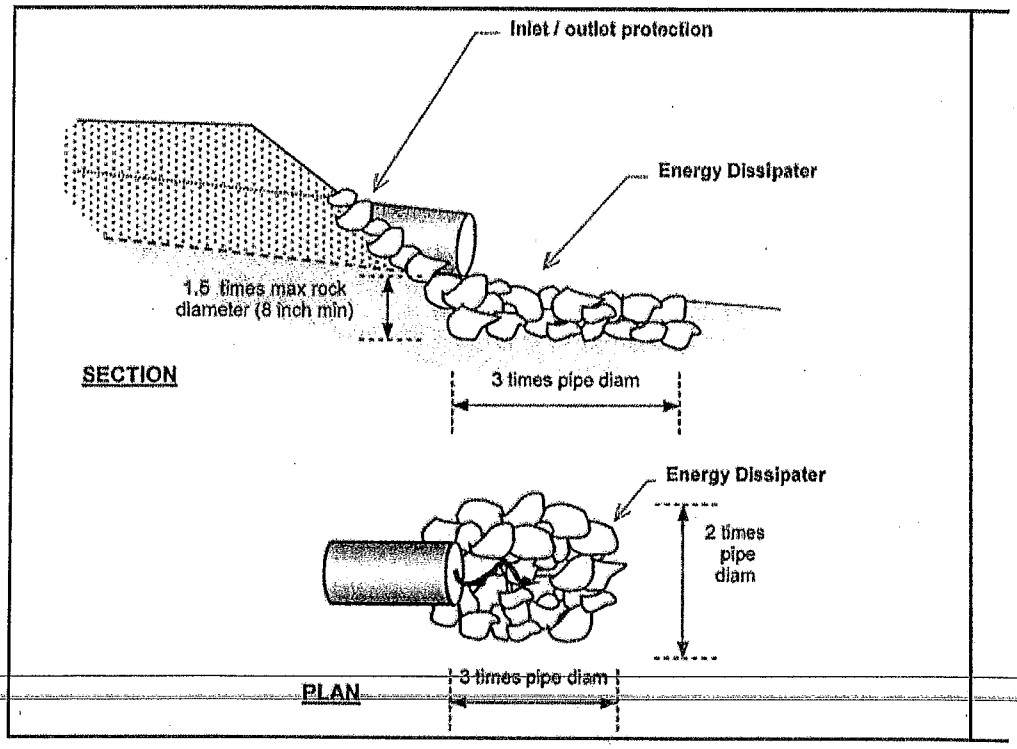
3. The treatment for other disturbed areas within 100 feet of a watercourse or lake, including: (A) areas exceeding 100 contiguous square feet where operations have exposed bare soil, (B) road cut banks and fills, and (C) any other area of disturbed soil that threatens to discharge sediment into waters in amounts deleterious to the quality and beneficial uses of water, shall be grass seeded and mulched with straw. Grass seed shall be applied at a rate exceeding 100 pounds per acre. Straw mulch shall be applied in amounts sufficient to provide at least 2- 4-inch depth of straw with minimum 90% coverage. Slash may be substituted for straw mulch provided the depth, texture, and ground contact are equivalent to at least 2 – 4 inches of straw mulch. Any treated area that has been subject to reuse or has less than 90% surface cover shall be treated again prior to the end of operations.

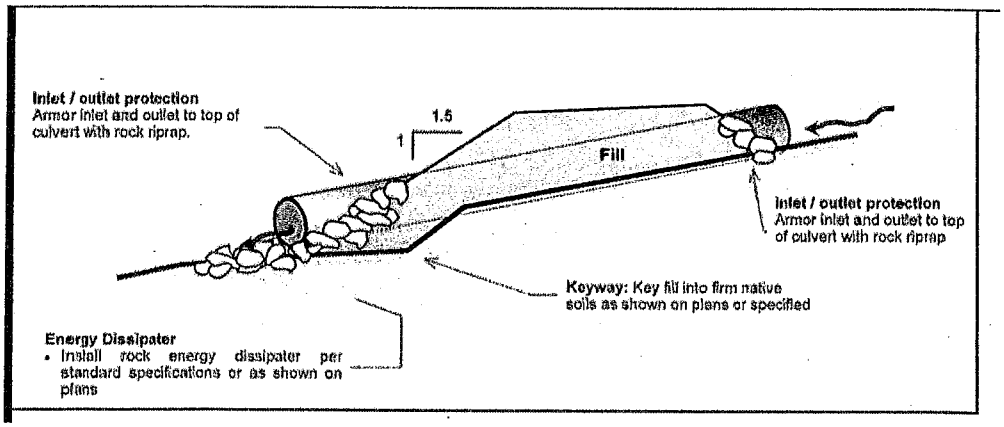
4. Within 100 feet of a watercourse or lake, where the undisturbed natural ground cover cannot effectively protect beneficial uses of water from sediment introduction, the ground shall be treated with slope stabilization measures described in #3 above per timing described in #1 above.

5. Sidecast or fill material extending more than 20 feet in slope distance from the outside edge of a roadbed, which has access to a watercourse or lake, shall be treated with slope stabilization measures described in #3 above. Timing shall occur per #1 above unless outside 100 feet of a watercourse or lake, in which completion date is October 15.

6. All roads shall have drainage and/or drainage collection and storage facilities installed as soon as practical following operations and prior to either (1) the start of any rain which causes overland flow across or along the disturbed surface within 100 feet of a watercourse or lake protection, or (2) any day with a National Weather Service forecast of a chance of rain of 30 percent or more, a flash flood warning, or a flash flood watch.

Culvert Installation Specifications

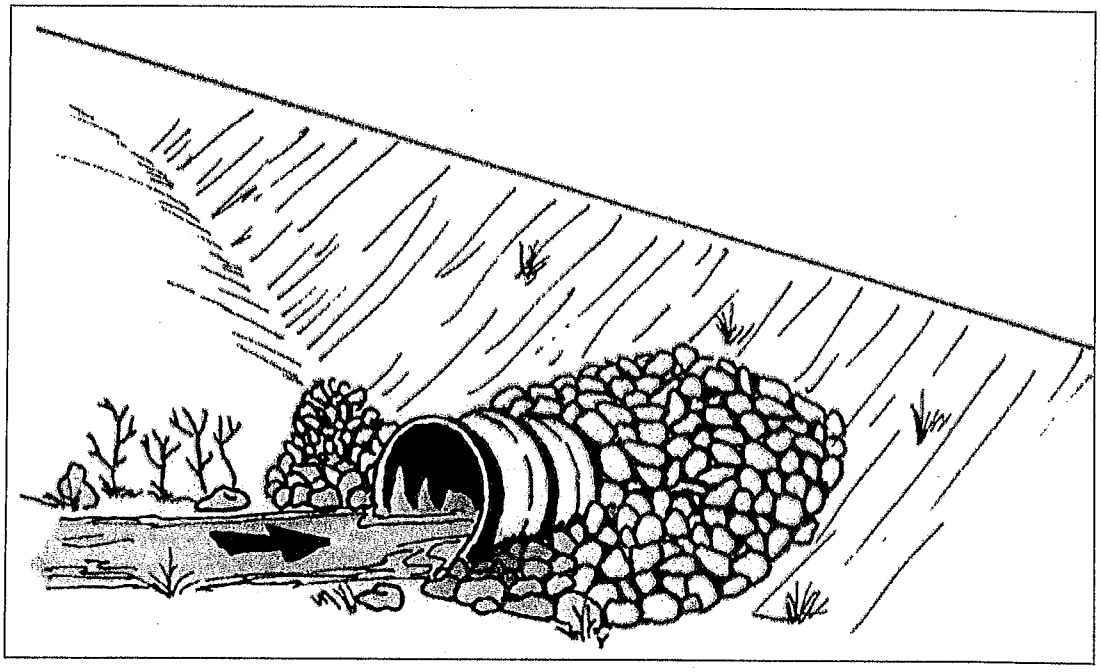




Riprap installed to protect the inlet and outlet of a stream crossing culvert from erosion or for energy dissipation should be keyed into the natural channel bed and banks to an approximate depth of about 1.5x the maximum rock thickness. Riprap should be placed at least up to the top of the culvert at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

180102120502TRC380 – 11/24/17

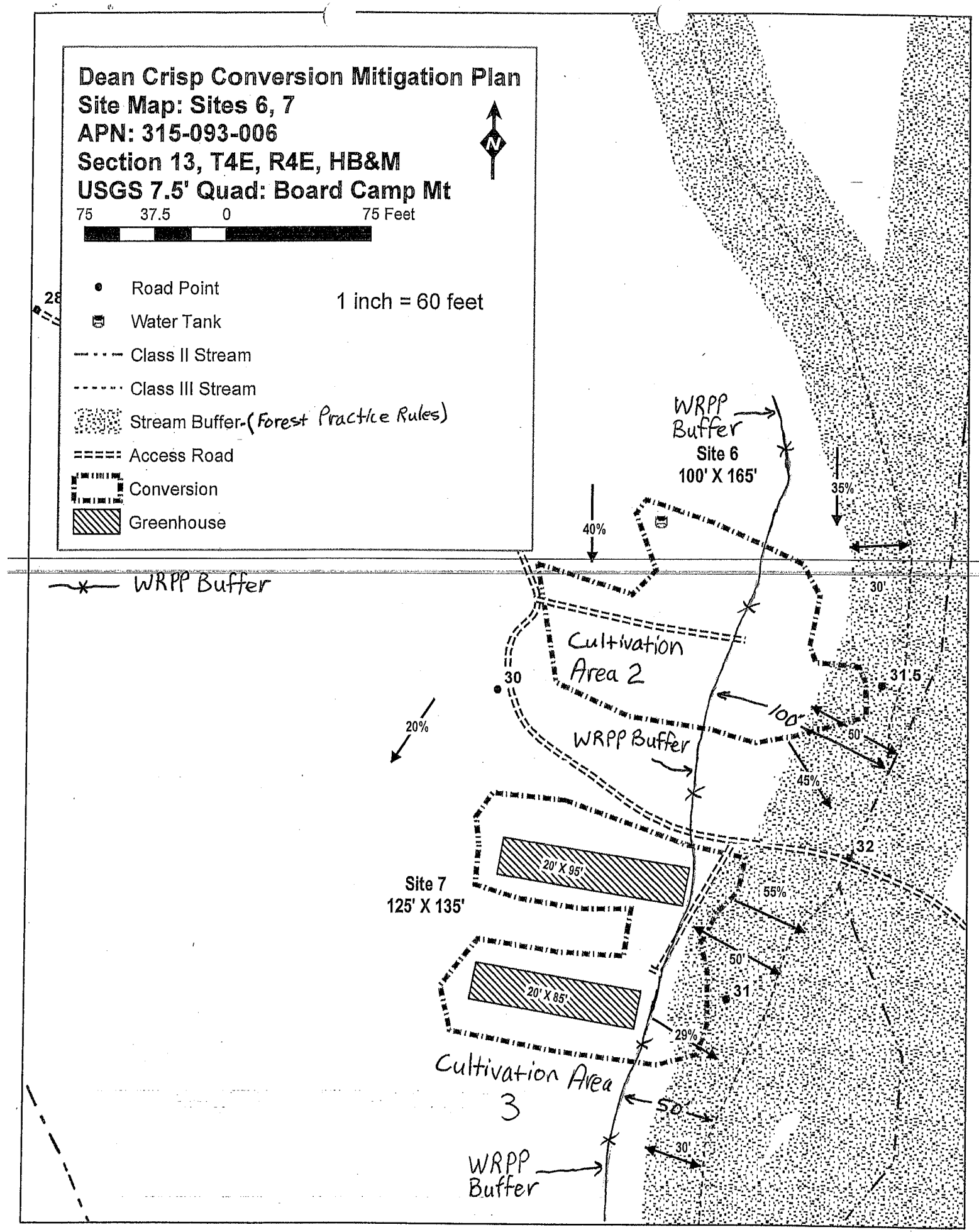
Culvert Installation Specifications

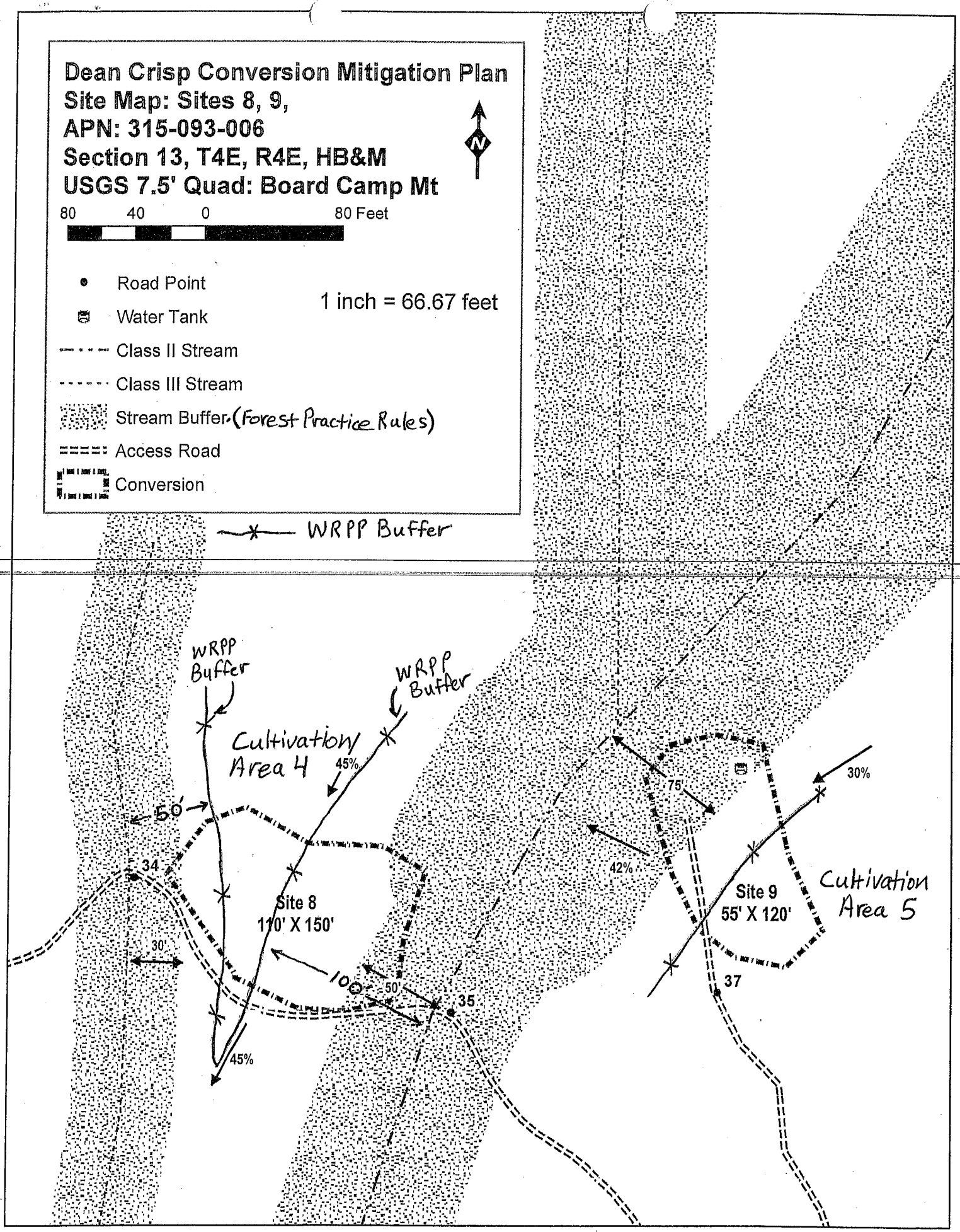


Rock armor used for inlet and outlet protection (i.e., not as energy dissipation) does not have to be sized to protect against high velocity scour. If the culvert is properly sized and its length is adequate, it should be able to transmit flood flows without scouring the inlet or eroding the outlet around the culvert. Armor shown here is designed to protect the culvert outlet and basal fill from splash erosion and from occasional submergence and currents within standing water (at the inlet) when the culvert plugs. Importantly, inlet and outlet armor also serves to trap sediment that has been eroded or slides down the new constructed fill face in its first several years, until the slope becomes well vegetated.

Culvert Installation Specifications

- New culvert installations shall be sized to accommodate a 100-year storm.
- 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.
  - 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.
- 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 cannot 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.
- Stabilize the site pursuant to Addendum 12A.


Dean Crisp Conversion Mitigation Plan
Site Map: Sites 6, 7
APN: 315-093-006
Section 13, T4E, R4E, HB&M
USGS 7.5' Quad: Board Camp Mt
75 37.5 0 75 Feet
1 inch = 60 feet
Road Point
Water Tank
Class II Stream
Class III Stream
Stream Buffer-(Forest Practice Rules)
Access Road
Conversion
Greenhouse
WRPP Buffer
Site 6
100' X 165'
40%
35%
30'
Cultivation Area 2
30
31.5
100'
50'
45%
20%
WRPP Buffer
32
Site 7
125' X 135'
20' X 95'
55%
50'
20' X 85'
31
29%
Cultivation Area 3
50
30'
WRPP Buffer

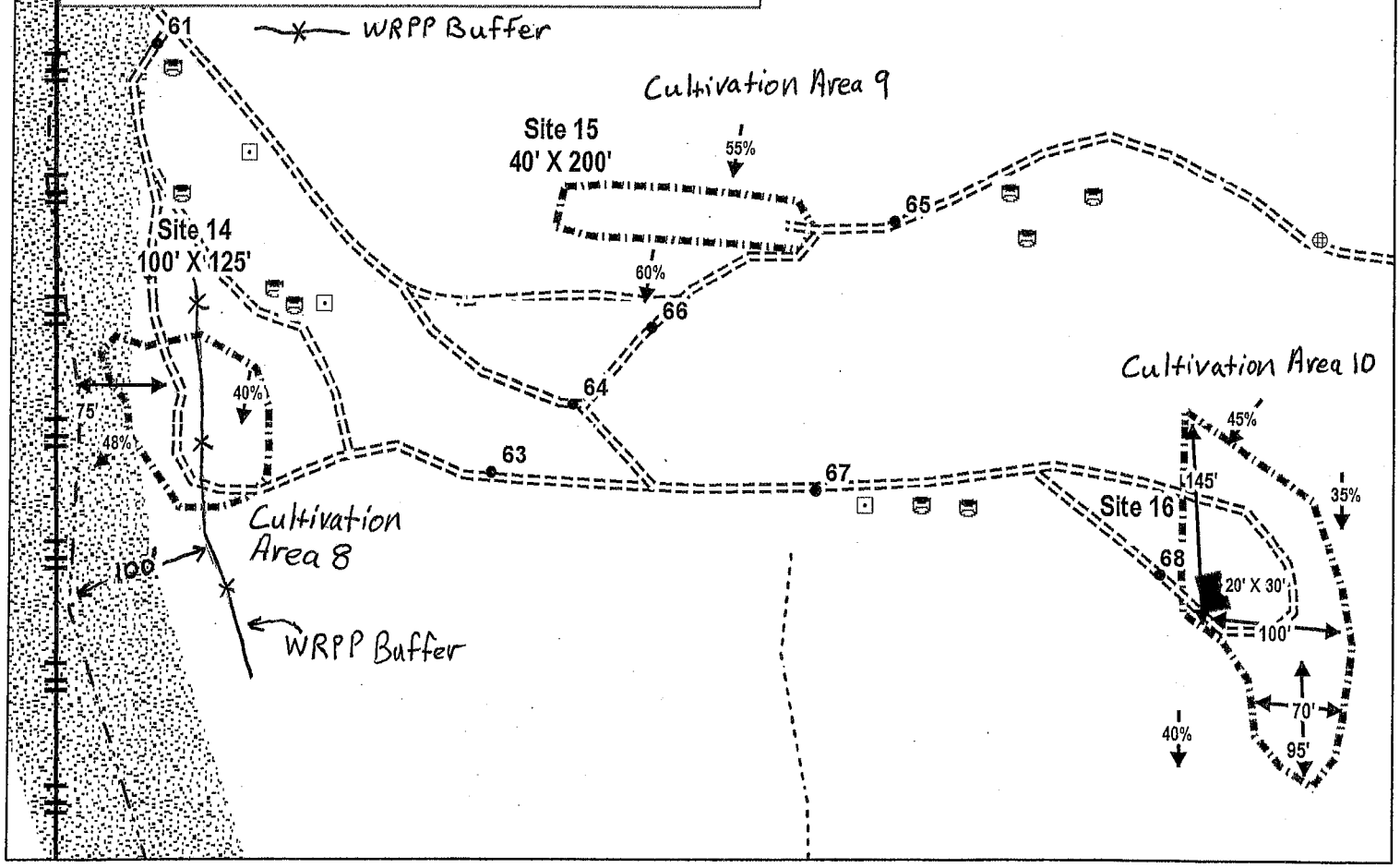

Dean Crisp Conversion Mitigation Plan
Site Map: Sites 8, 9,
APN: 315-093-006
Section 13, T4E, R4E, HB&M
USGS 7.5' Quad: Board Camp Mt
80 40 0 80 Feet
1 inch = 66.67 feet
Road Point
Water Tank
Class II Stream
Class III Stream
Stream Buffer (Forest Practice Rules)
Access Road
Conversion
WRPP Buffer
WRPP Buffer
WRPP Buffer
Cultivation Area 4
45%
50'
34
30'
Site 8
110' X 150'
100'
50'
35
45%
75'
42%
30%
Site 9
55' X 120'
Cultivation Area 5
37

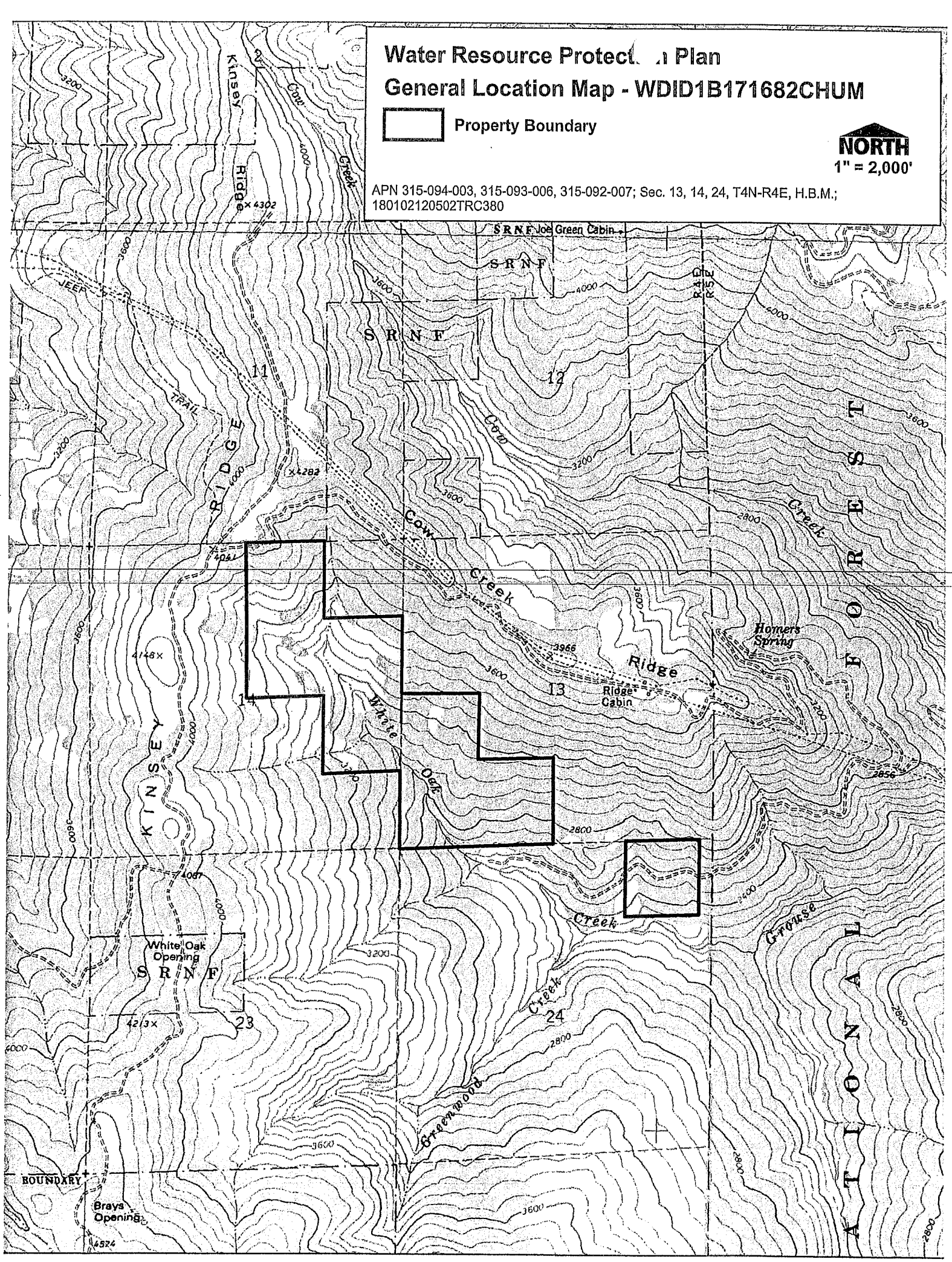
Dean Crisp Conversion Mitigation Plan
Site Map: Sites 14, 15, 16
APN: 315-094-003
Section 24, T4E, R4E, HB&M
USGS 7.5' Quad: Board Camp Mt

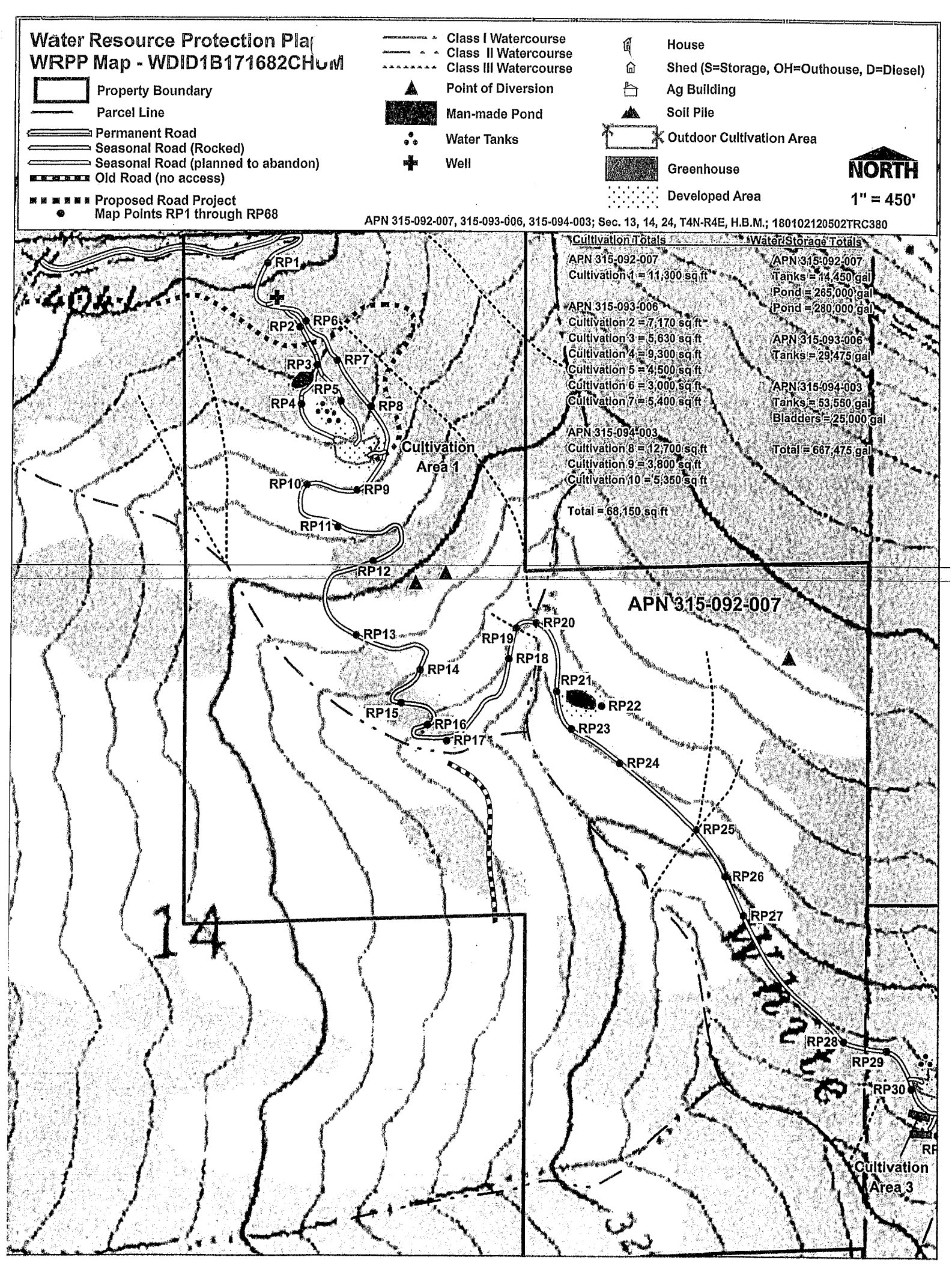
130 65 0 130 Feet

1 inch = 133.33 feet

- Gate
- Road Point
- Water Tank
- Water Bag
- Class II Stream
- Class III Stream
- Stream Buffer - (Forest Practice Rules)
- Access Road
- Structure
- Conversion
- Project Boundary




Water Resource Protect. .n Plan
General Location Map - WDID1B171682CHUM
Property Boundary
NORTH
1" = 2,000'
APN 315-094-003, 315-093-006, 315-092-007; Sec. 13, 14, 24, T4N-R4E, H.B.M.;
180102120502TRC380
SRNF Joe Green Cabin
SRNF
SRNF
SRNF
SRNF
R4E
R5E
Kinsey Ridge
Cow Creek
JEEP TRAIL
RIDGE
Cow Creek
Cow Creek
Ridge
Ridge Cabin
Homers Spring
White Oak
KINSEY
White Oak Opening
Creek
Creek
Grouse
Greenwood
BOUNDARY
Brays Opening
ATLONA
FOREST
11
12
13
14
23
24
3200
3600
4000
2800
2856
3966
4302
4282
4041
4146
4073
4213
4524


Water Resource Protection Plan
WRPP Map - WDID1B171682CHUM
Property Boundary
Parcel Line
Permanent Road
Seasonal Road (Rocked)
Seasonal Road (planned to abandon)
Old Road (no access)
Proposed Road Project
Map Points RP1 through RP68
Class I Watercourse
Class II Watercourse
Class III Watercourse
Point of Diversion
Man-made Pond
Water Tanks
Well
House
Shed (S=Storage, OH=Outhouse, D=Diesel)
Ag Building
Soil Pile
Outdoor Cultivation Area
Greenhouse
Developed Area
NORTH
1" = 450'
APN 315-092-007, 315-093-006, 315-094-003; Sec. 13, 14, 24, T4N-R4E, H.B.M.; 180102120502TRC380
Cultivation Totals
APN 315-092-007
Cultivation 1 = 11,300 sq ft
APN 315-093-006
Cultivation 2 = 7,170 sq ft
Cultivation 3 = 5,630 sq ft
Cultivation 4 = 9,300 sq ft
Cultivation 5 = 4,500 sq ft
Cultivation 6 = 3,000 sq ft
Cultivation 7 = 5,400 sq ft
APN 315-094-003
Cultivation 8 = 12,700 sq ft
Cultivation 9 = 3,800 sq ft
Cultivation 10 = 5,350 sq ft
Total = 68,150 sq ft
Water Storage Totals
APN 315-092-007
Tanks = 14,450 gal
Pond = 265,000 gal
Pond = 280,000 gal
APN 315-093-006
Tanks = 29,475 gal
APN 315-094-003
Tanks = 53,550 gal
Bladders = 25,000 gal
Total = 667,475 gal
RP1
RP2
RP3
RP4
RP5
RP6
RP7
RP8
RP9
RP10
RP11
RP12
RP13
RP14
RP15
RP16
RP17
RP18
RP19
RP20
RP21
RP22
RP23
RP24
RP25
RP26
RP27
RP28
RP29
RP30
Cultivation Area 1
Cultivation Area 3
APN 315-092-007
14
23

Water Resource Protection Plan
WRPP Map - WDID1B171682CHUM

- Property Boundary
- Parcel Line
- Permanent Road
- Seasonal Road (Rocked)
- Seasonal Road (planned to abandon)
- Old Road (no access)
- Proposed Road Project
- Map Points RP1 through RP68
- Class I Watercourse
- Class II Watercourse
- Class III Watercourse
- Point of Diversion
- Man-made Pond
- Water Tanks
- Well
- House
- Shed (S=Storage, OH=Outhouse, D=Diesel)
- Ag Building
- Soil Pile
- Outdoor Cultivation Area
- Greenhouse
- Developed Area

NORTH

1" = 450'

APN 315-092-007, 315-093-006, 315-094-003; Sec. 13, 14, 24, T4N-R4E, H.B.M.; 180102120502TRC380

Cultivation Totals

APN 315-092-007
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Cultivation 7 = 5,400 sq ft

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Pond = 280,000 gal

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APN 315-094-003
Tanks = 53,550 gal
Bladders = 25,000 gal

Total = 667,475 gal

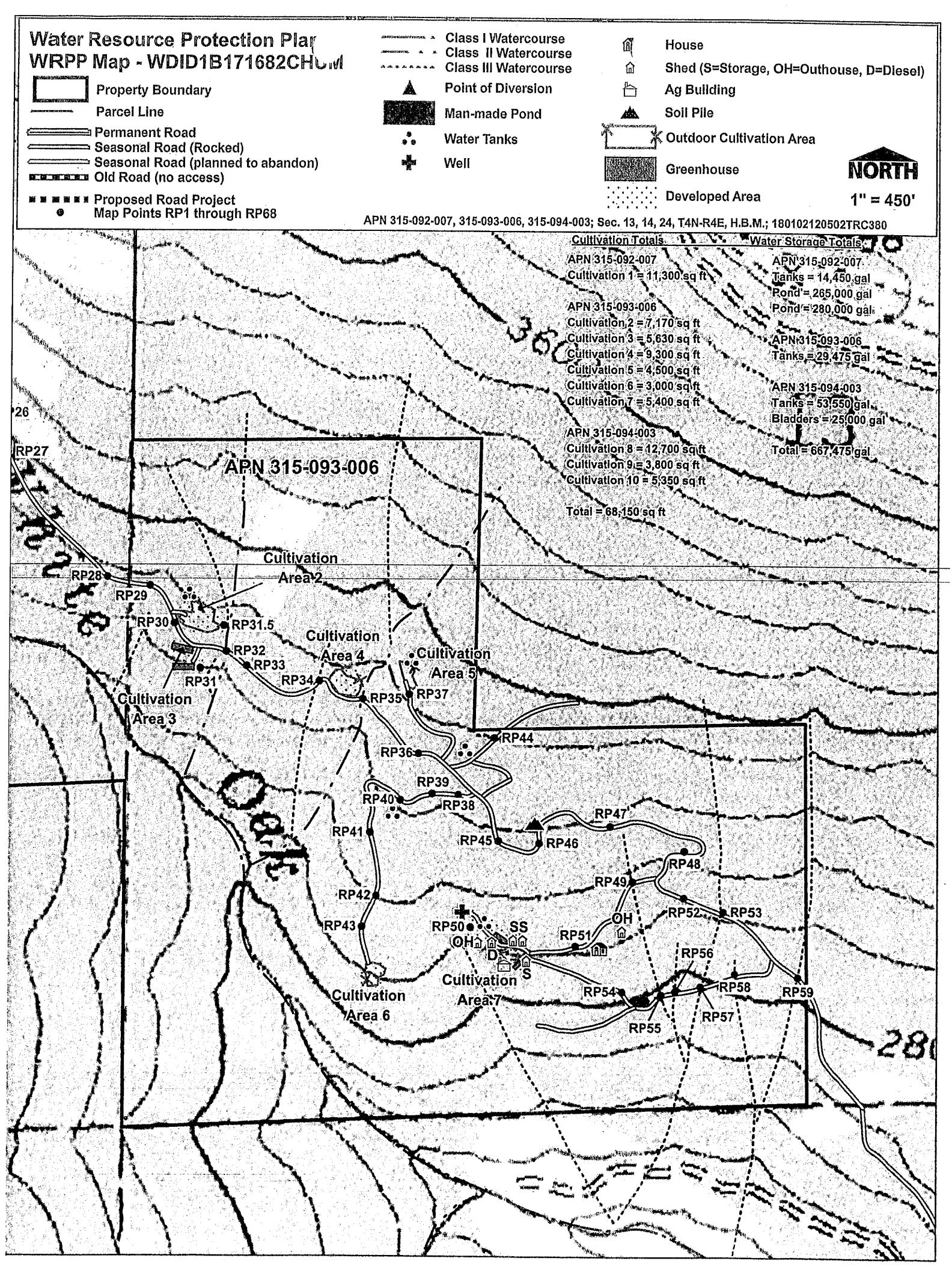
RP1 RP2 RP3 RP4 RP5 RP6 RP7 RP8 RP9 RP10 RP11 RP12 RP13 RP14 RP15 RP16 RP17 RP18 RP19 RP20 RP21 RP22 RP23 RP24 RP25 RP26 RP27 RP28 RP29 RP30

Cultivation Area 1

APN 315-092-007

Cultivation Area 3

Water Resource Protection Plan
WRPP Map - WDID1B171682CHUM



Water Resource Protection Pla
WRPP Map - WDID1B171682CHUM

- Property Boundary
- Parcel Line
- Permanent Road
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- Soil Pile
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- Greenhouse
- Developed Area

NORTH

1" = 450'

APN 315-092-007, 315-093-006, 315-094-003; Sec. 13, 14, 24, T4N-R4E, H.B.M.; 180102120502TRC380

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Bladders = 25,000 gal

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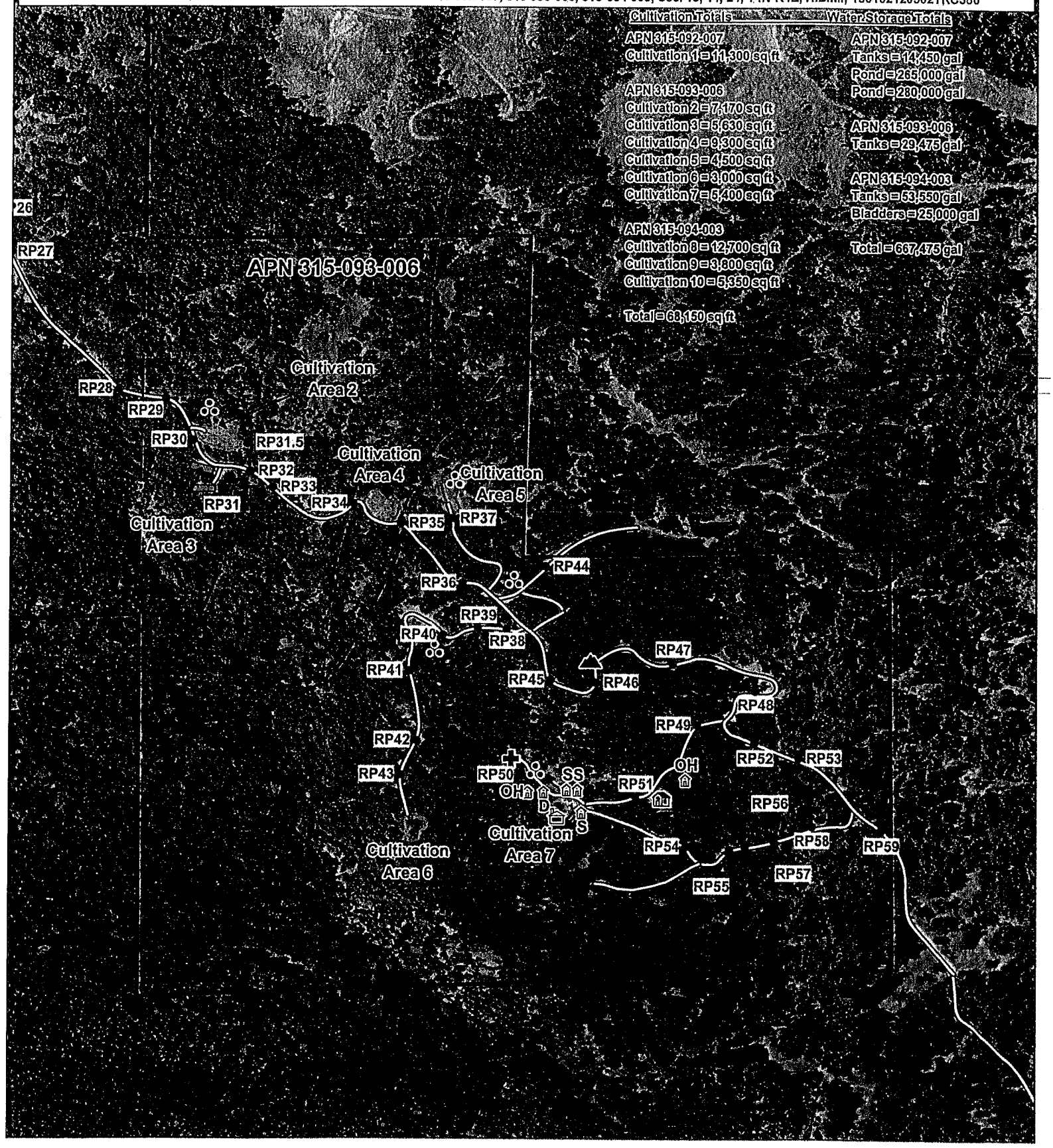

Water Resource Protection Plan
WRPP Map - WDID1B171682CHUM

- Property Boundary
- Parcel Line
- Permanent Road
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- Seasonal Road (planned to abandon)
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- Class III Watercourse
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- Well
- House
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- Ag Building
- Soil Pile
- Outdoor Cultivation Area
- Greenhouse
- Developed Area

NORTH

1" = 250'

APN 315-092-007, 315-093-006, 315-094-003; Sec. 13, 14, 24, T4N-R4E, H.B.M.; 180102120502TRC380

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APN 315-094-003
Tanks = 53,550 gal
Bladders = 25,000 gal

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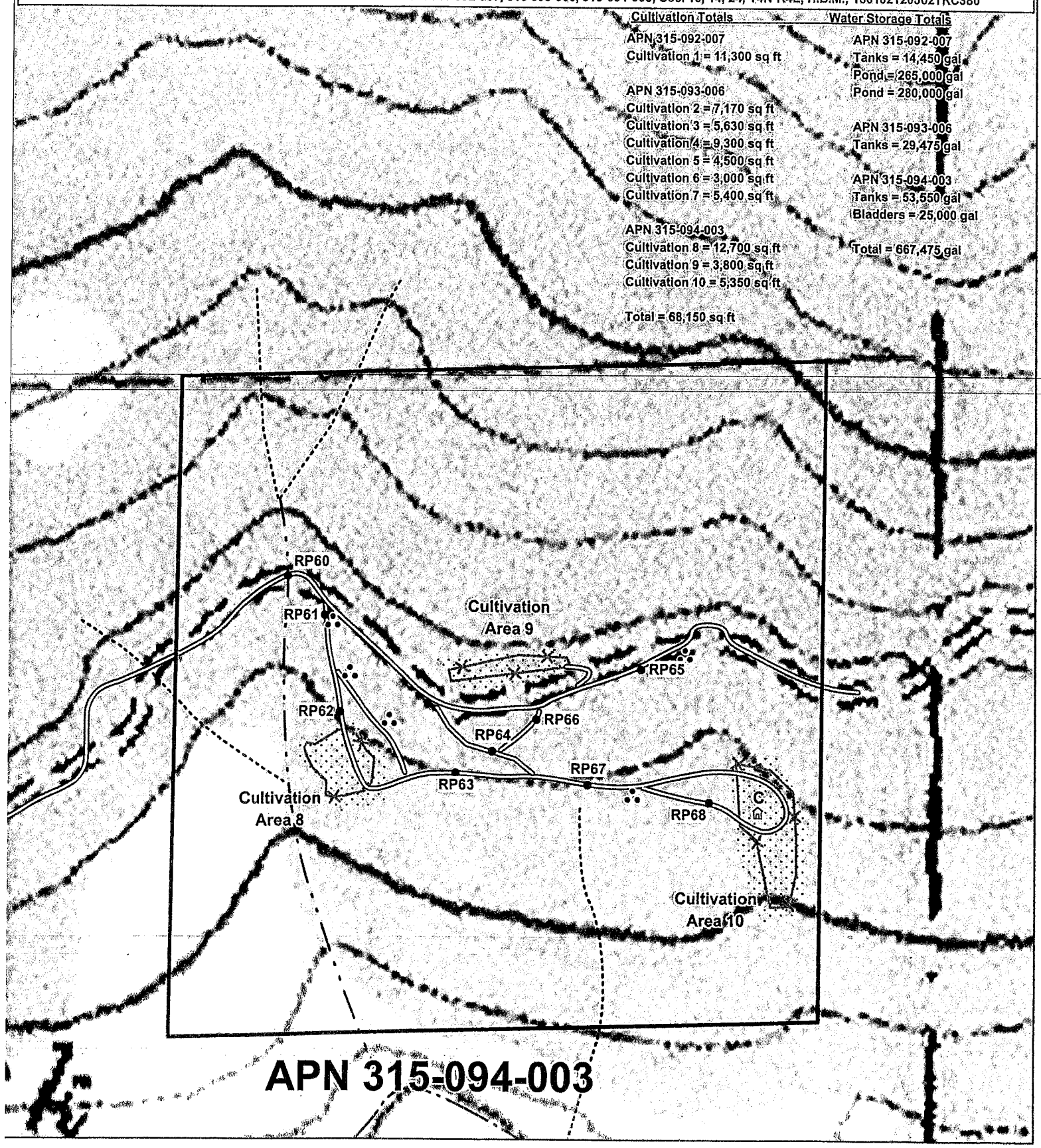

Water Resource Protection Plan
WRPP Map - WDID1B171682CHUM

- Property Boundary
- Parcel Line
- Permanent Road
- Seasonal Road (Rocked)
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- Class II Watercourse
- Class III Watercourse
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- Man-made Pond
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- Soil Pile
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- Greenhouse
- Developed Area

NORTH

1" = 250'

APN 315-092-007, 315-093-006, 315-094-003; Sec. 13, 14, 24, T4N-R4E, H.B.M.; 180102120502TRC380

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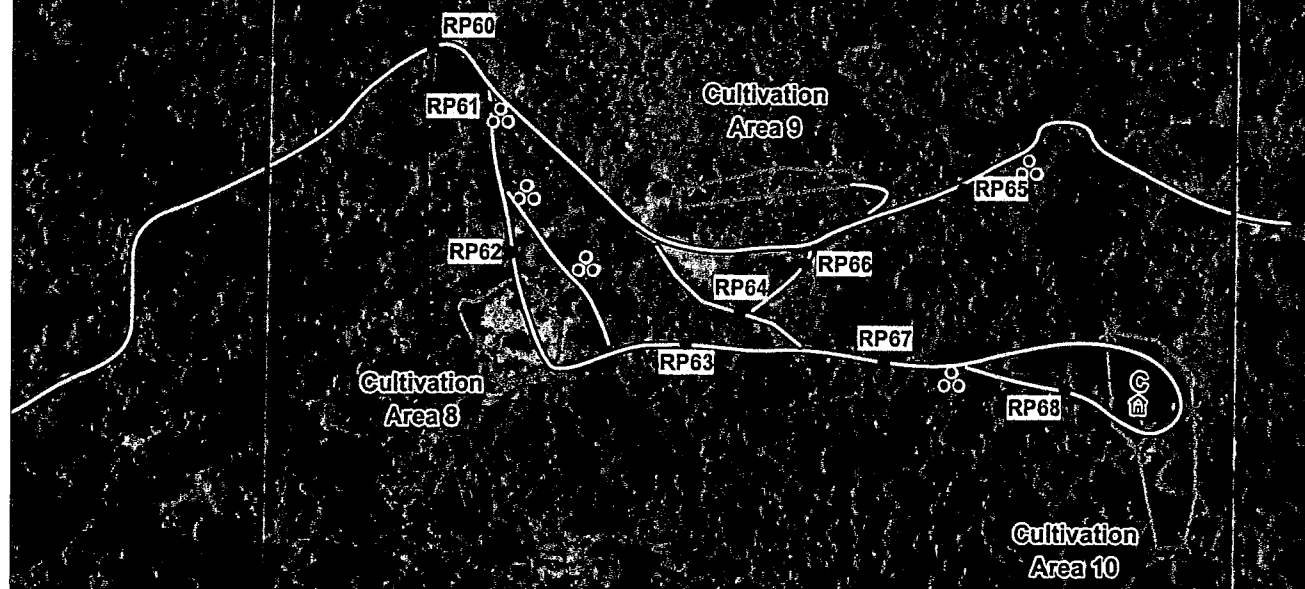
APN 315-094-003
Tanks = 53,550 gal
Bladders = 25,000 gal

Total = 667,475 gal



APN 315-094-003

RP#1: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#2: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#3: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#4: Road with steep gradient. Install water-bars spaced according to the table below.

Slope	< 10%	11-25%	>25%
Spacing (Feet)	200	150	100

14CCR 923.5

RP#5: Road with steep gradient. Install water-bars spaced according to the table above. 14CCR 923.5

RP#6: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#7: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#8: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#9: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#10: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#11: Drain surface drainage. Outslope road prism. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#12: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#13: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#14: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#15: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

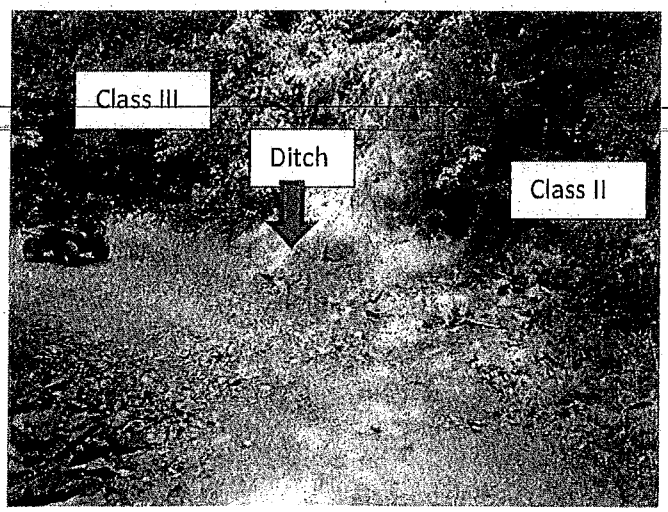
RP#16: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#17: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#18: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#19: Class III watercourse crossing. Install rocked ford. Line/cap the ford with 4" to 8" diameter rock to prevent erosion. 14CCR 923.5

RP#20: Class II watercourse crossing and ditch connecting class III to class II just above road crossing. Install armored fill crossing where the class II crosses the road and clean out ditch connecting the class III watercourse to the class II watercourse. Line/cap the armored fill crossing with mixed 6" to 18" diameter rock and ditch with 4" to 8" diameter rock to prevent erosion. 14CCR 923.5



RP figure 1) RP#20

RP#21: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#22: Slash pile. Dispose of slash pile to reduce fire potential and potential fire severity by piling and burning, chipping, or lopping into 4 foot lengths and scattering. 14CCR 917.2

RP#23: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#24: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#24: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#25: Confluence of two class III watercourses and class III crossing. Install catchment at confluence by excavating existing pile of colluvium and channelize slope leading to each watercourse. Use spoils to enhance/heighten watercourse banks to prevent escapement and erosion channel formation. Install rocked ford. Line/cap channels, catchment and ford with 4" to 8" diameter rock to prevent erosion. 14CCR 923.5

RP#26: Drain surface drainage. Outslope road prism. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#27: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#28: Drain surface drainage. Outslope road prism above. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#29: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#30: Slash pile. Dispose of slash pile to reduce fire potential and potential fire severity by piling and burning, chipping, or lopping into 4 foot lengths and scattering. 14CCR 917.2

RP#31: Grow residues in ditch and slash pile. Remove grow residues from ditch to prevent organic particulates and perlite from entering watercourses, 14CCR 923.5. Dispose of slash pile to reduce fire potential and potential fire severity by piling and burning, chipping, or lopping into 4 foot lengths and scattering. 14CCR 917.2

RP#31.5: Grow residues in class III watercourse. Remove grow residues from watercourse to prevent organic particulates and perlite from entering watercourses. 14CCR 923.5

RP#32: Class II watercourse crossing. Install armored fill crossing. Line/cap the crossing with mixed 6" to 18" diameter rock to prevent erosion. 14CCR 923.5

RP#33: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#34: Class III watercourse crossing. Install rocked ford. Line/cap the ford with mixed 4" to 8" diameter rock to prevent erosion. 14CCR 923.5

RP#35: Class II watercourse crossing. Install armored fill crossing. Line/cap the crossing with mixed 6" to 18" diameter rock to prevent erosion. 14CCR 923.5

RP#36: Drain surface drainage. Install rocked rolling dip, outslope road prism below. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#37: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#38: Drain surface drainage. Install rocked rolling dip, crown uphill road prism from RP#38 to 30' before RP#44. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#39: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#40: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#41: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#42: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#43: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#44: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#45: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#46: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#47: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#48: Drain surface drainage. Install rocked rolling dip. Inslope road prism above switchback so that runoff flows toward quarry. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#49: Class III watercourse crossing. Install rocked ford. Line/cap the ford with mixed 4" to 8" diameter rock to prevent erosion. 14CCR 923.5

RP#50: Fill material/spoils in class III watercourse. Pull back spoils and terminate road 30' from watercourse channel. Seed and mulch spoils and all exposed native soil within 30' of watercourse channel. 14CCR 923.5

RP#51: Drain surface drainage and unarmored slope. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. Mulch and waddle exposed native soil along outboard bank. 14CCR 923.5

RP#52: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#53: Class III watercourse crossing. Install rocked ford. Line/cap the ford with mixed 4" to 8" diameter rock to prevent erosion. 14CCR 923.5

PR#54: Road with steep gradients ending near spring and catchment pond. Terminate road with extra-large water-bar 75' from class II spring. Water-bar road according to the table above (RP#4). 14CCR 923.5

RP#55: Class III watercourse crossing. Install rocked ford. Line/cap the ford with mixed 4" to 8" diameter rock to prevent erosion. 14CCR 923.5

RP#56: Class III watercourse crossing. Install rocked ford. Line/cap the ford with mixed 4" to 8" diameter rock to prevent erosion. 14CCR 923.5

RP#57: Class III watercourse crossing. Install rocked ford. Line/cap the ford with mixed 4" to 8" diameter rock to prevent erosion. 14CCR 923.5

RP#58: Class III watercourse crossing. Install rocked ford. Line/cap the ford with mixed 4" to 8" diameter rock to prevent erosion. 14CCR 923.5

RP#59: Class III watercourse crossing. Install rocked ford. Line/cap the ford with mixed 4" to 8" diameter rock to prevent erosion. 14CCR 923.5

RP#60: Existing 36" culvert for class II watercourse crossing. Monitor culvert to plugging with debris. 14CCR 923.5

RP#61: Drain surface drainage, critical dip for RP#60. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#62: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#63: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#64: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#65: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#66: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#67: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5

RP#68: Drain surface drainage. Install rocked rolling dip. Line/cap the dip with 4" to 6" diameter rock to divert surface silt and debris off the road prism. 14CCR 923.5