APPS 11710

NRM
NATURAL RESOURCES MANAGEMENT
CORPORATION

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March 12, 2019

Re: Differences between WRPPs and Plot plans/ COPS Plans

To whom it may concern,

The purpose of this letter is to address any differences between the WRPP and the Plot Plan/ COPS Plan for this project. WRPPs were written for the Regional Water Board enrollment, they reflect what we saw on the ground during the site visits that took place in 2016 and 2017. At many sites there have been changes to square footage, location, and practices over the last 3.5 years as the site go through the compliance process. Depending on when it was written the WRPP does not always reflect those changes or take into account recent future plans.

On July 1, 2019 the Regional Order will close and all enrollees will have to be transitioned into the State Water Board Order. WRPPs will be a thing of the past. As sites transition to the State Water Board Order, they will instead need Site Management Plans (SMP) which are different than WRPPs. In the interest of both time and cost efficiency we have decided that instead of updating WRPPs as changes are made, we will instead incorporate those changes into the SMP.

Please contact me if you have any questions,

Sincerely,
Prairie Moore

Prairie Moore
President
Natural Resources Management Corporation
707-442-1735
pmoore@nrmcorp.com

Water Resource Protection Plan

for APN 217-255-002

Humboldt County

Submitted to:

California Regional Water Quality Control Board
North Coast Region
5550 Skylane Boulevard, Suite A
Santa Rosa, California 95403

Prepared by:
Alicia Heitzman
Natural Resources Management Corporation
1434 3rd Street
Eureka, CA 95501

August 1, 2017

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Figure 1 - Vicinity map for parcel 217-255-002

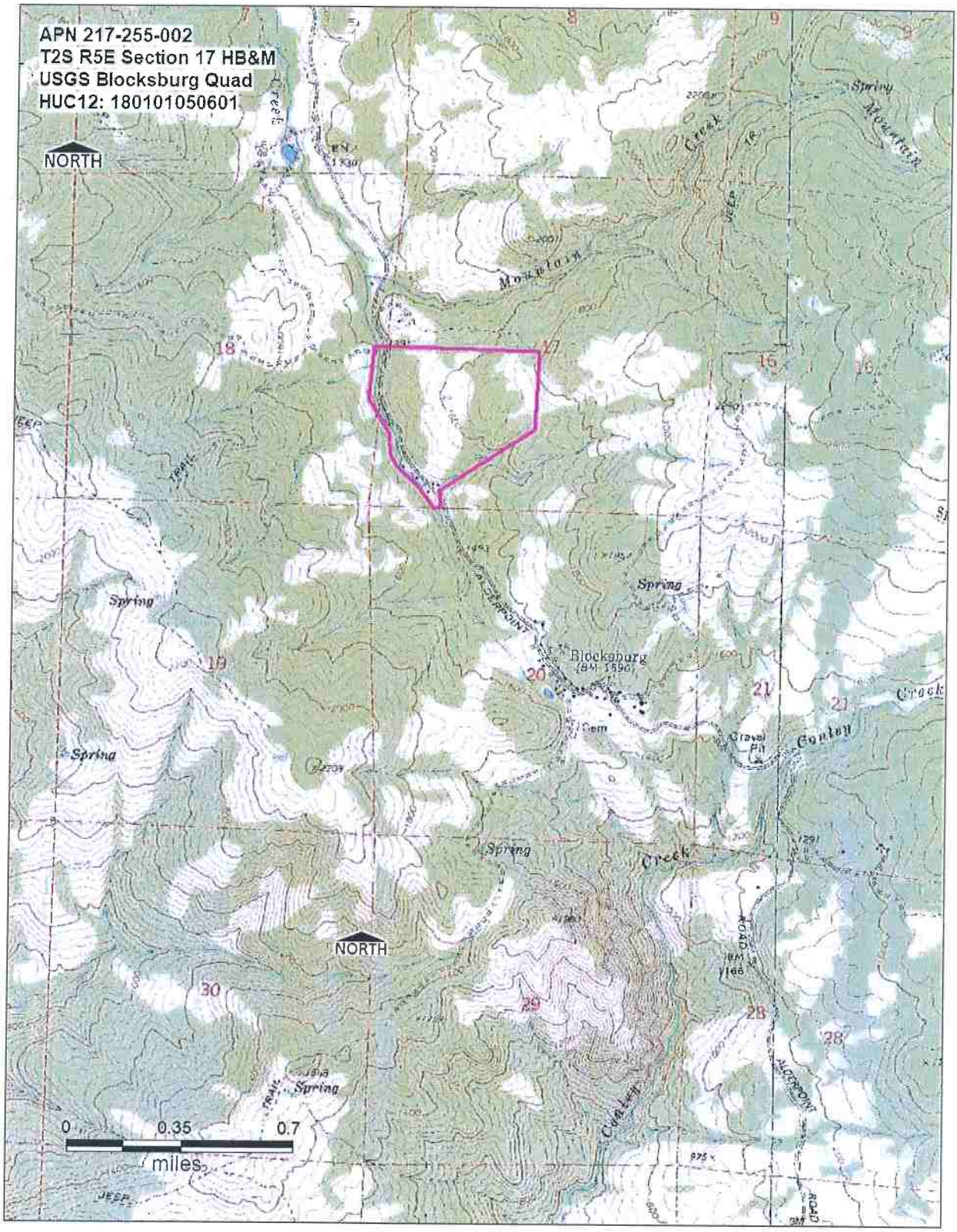


Figure 2 – Property map for parcel 217-255-002

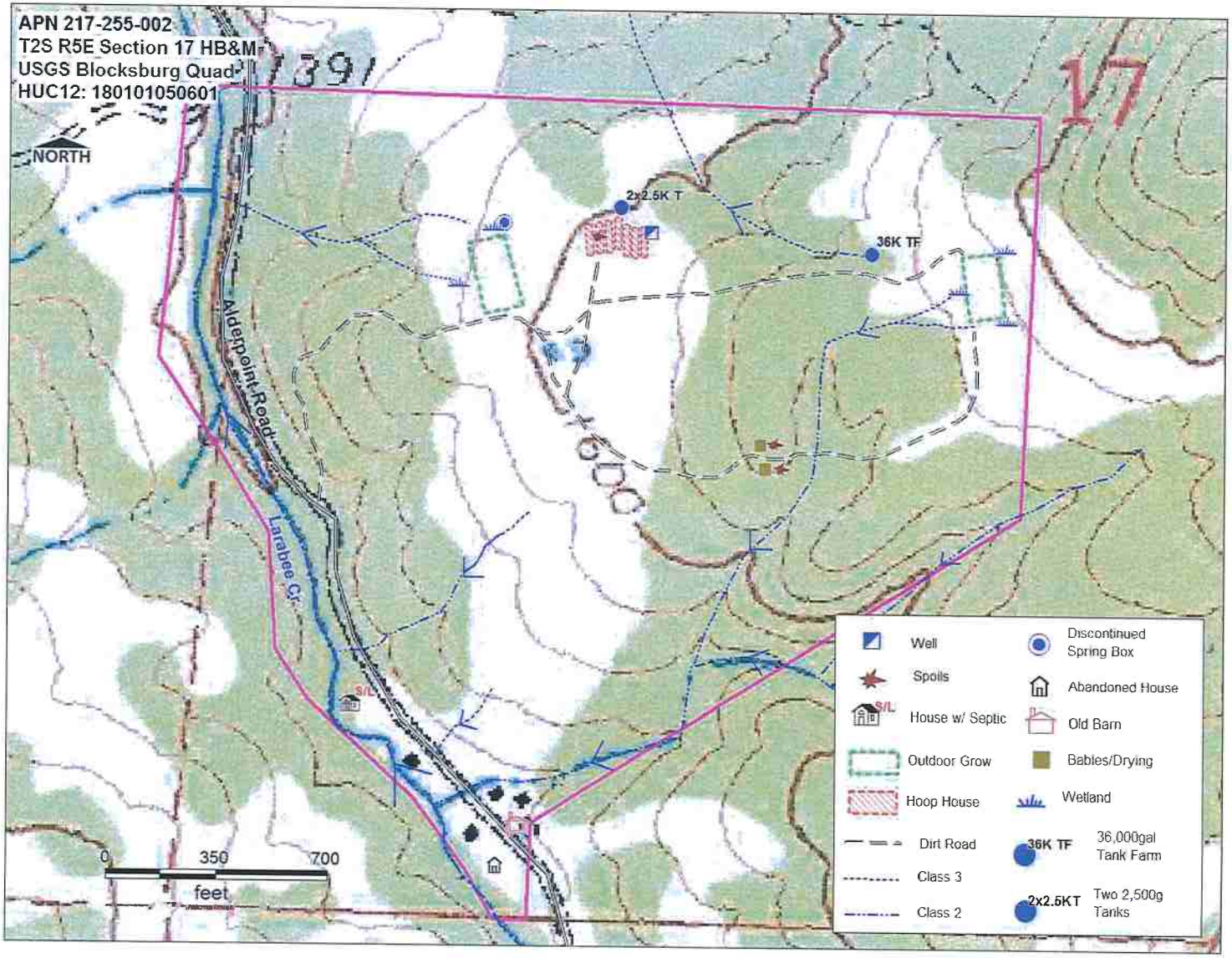
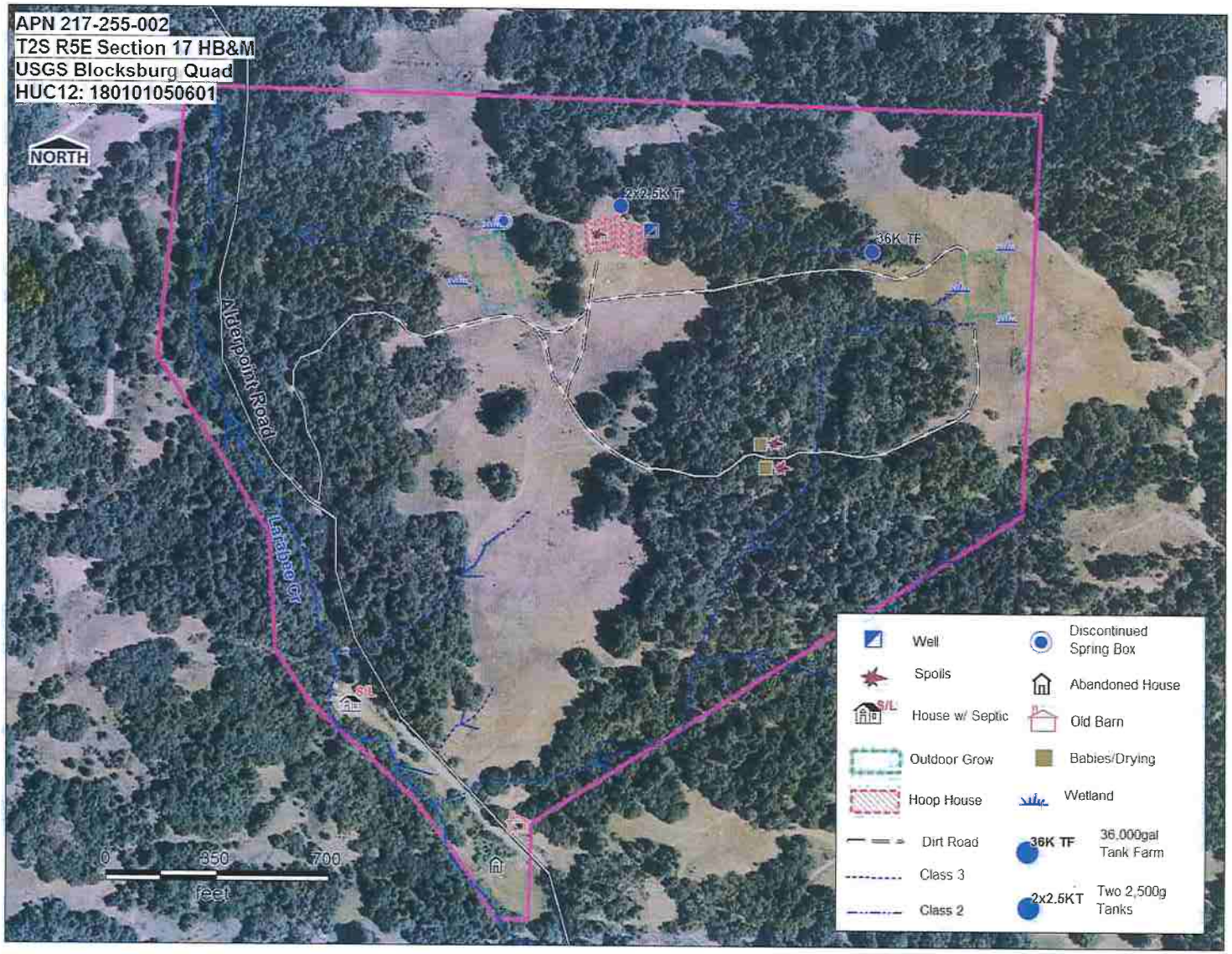


Figure 2a – Property map for parcel 217-255-002



Water Resource Protection Plan

This document serves as the Water Resource Protection Plan for **APN 217-255-002** pursuant to Order No. R1-2015-0023. On August 13, 2015, the North Coast Regional Water Quality Control Board (NCRWQCB) adopted a General 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 in the North Coast Region, Order No. R1-2015-0023. One of the requirements of the order is to prepare a Water Resource Protection Plan (WRPP) for all sites that are enrolled under Tier 2 of the order.

Site Assessment

This 115-acre parcel is located three quarters of a mile north of the town Blocksburg and situated on both sides of Alderpoint Road. The vast majority of the parcel lies east of Alderpoint Road, whereas the residence dwellings are situated on the small patch of land west of Alderpoint Road and adjacent to Larabee Creek. One house has occupancy; the other is abandoned. This property has been leased for the last few years, which has resulted in problems (violations) for the landowner. At the time of the original site visit, in July of 2016, no cultivation was taking place and the tenants wanted to clean up the property and address the violations.

In October of 2015, the property was cited by the California Department of Fish and Wildlife for various violations. An enforcement letter was sent to the property owner citing violations of Fish and Game Code (FGC) sections 1602 and 5650. FGC section 1602 requires a Lake and Streambed Alteration Agreement (LSAA) to divert water. FGC section 5650 states that "it is unlawful to deposit in, permit to pass, or place where it can pass into the waters of this State any of the following:…(6) any substance or materials deleterious to fish, plant life, or bird life." During our site visit, an unpermitted water diversion was not observed. It is assumed that the most recent graded flats were in violation of FGC section 5650.

There are two recent (2015) unpermitted graded flats on this property: (1) The "upper flat" is located near the north-east parcel border and (2) the "lower flat" located near the main road intersection, between the main road and the old spring box. Based on field and satellite imagery analysis, these graded flats were cut into grasslands and buried pockets of wetland habit. The "middle flat" is an ungraded flat located just east of the "lower flat". There is one well, which has been ruled non-jurisdictional by CDFW, located on the upper northeast corner of the middle flat. This area has been the historic cultivation area. All three flats were used for light deprivation cultivation and the plants were hand watered in bags. In the forested area in the upper southeast portion of the parcel are two 6000 square foot buildings that have historically been used for indoor cultivation and processing activities. They were currently not in use, but are planned for nursery and drying.

Current Conditions Please refer to Figure 1-2a

Watercourses

The uppermost headwaters Larabee Creek, near its watershed divide at Blocksburg, is the main drainage that flows northward along the length of the parcel's western boundary line (it had only subsurface channel flow at the site visit in July 2016). Larabee Creek eventually gains significant size and drain into the Eel River near Redcrest, CA. An unnamed blue-line tributary (Class 2) to Larabee Creek basically follows the parcel's southern boundary line, where it crosses under Alderpoint Road before its confluence with Larabee Creek. The vast majority of this parcel is situated on a broad ridge with several intermittent drainages with small drainage areas. However, seeps and springs emerge in draws that feed these small drainages and/or facilitate the pockets of wetland development.

Watercourse Crossings

There are four watercourse crossings within the parcel boundaries. Three of them are on Alderpoint Road, a paved county road. The remaining watercourse crossing is a ford crossing that is a rocked with large cobble; and it is located on the historic ranch road reach between the indoor/processing buildings and the upper flat, which is currently not drivable due to downed trees at building side of crossing.

Roads

There are approximately 4,600 feet of road on this parcel used for access to the various cultivation areas. Because the plan is to retire and restore the upper and lower flats, around 1,000 feet of road will be decommissioned. The road network to remain generally has native surface and additional surface rock will be needed.

Road reach from the Alderpoint Road gate to the middle flat

The road reach from the gate to middle flat will be maintained. The 300 feet of road closest to the gate is stable and may not need treatment. As the road grade increases, however, approximately five rolling dips are needed, as the current waterbars are not functioning. Additional surface rocking is also needed to minimize road surface erosion.

Road reach from middle flat to upper flat

The ~900-foot road reach from the middle flat to the tank farm will be maintained for access to 36,000-gallon tank farm along it. Rock and rolling dips will be applied between the middle flat and the tank farm. Between the tank farm and upper flat the road will be retired. Three aggressive tank traps will be installed.

Road reach from middle flat to the upper buildings

The ~1,150 foot road reach from the middle flat to the indoor buildings will be maintained. The recommendation is to install two additional waterbars on this reach and rock with coarse angular rock.

Road from upper buildings to the upper flat

The historic road reach from the indoor buildings to the upper flat will be retired. Access is blocked by a downed tree and overgrown brush at its lower end, and has not been used in some years. This reach contains the property's one watercourse crossing, a stable ford/dip crossing rocked with river run cobble was determined to have diversion potential by CDFW and will be restored. There are existing waterbars

on this road that are not functioning; and 600 feet of this road delivers to this crossing due to the non-functioning waterbars. Additional cross road drains are recommended, with care taken to assure any directed runoff will be 100% prevented from flowing back onto to the road tread due to micro-topography.

Flats

Lower flat (cut and fill)

Satellite imagery and site inspection of this lower unpermitted graded flat indicate that it has partially buried one wetland feature (along the western fill edge) and encroaches the riparian buffer zone of another (at the northern edge of the graded area). The western fillslope has buried roughly 20 feet of wetland. In conjunction, a fill failure at this location has deposited on to the wetland downslope. This wetland is directly connected to a Class 2 stream approximately 75 feet downslope. The northern extent of the grading stopped just short of another wetland feature, but is within the 50-foot buffer zone. This feature is somewhat isolated and is indirectly connected to a Class 2 stream about 100 feet downslope. Temporary mitigation steps have been taken: The entire flat has been straw mulched and straw waddles have been placed where water concentrates and flows off the flat. The permanent treatment is to recontour the flat by retrieving the sidecast fill, placing it back at the cutbank and shaping the fill to mimic the original topography.

Middle flat (natural slope)

This flat was "grubbed" and less than 50 cubic yards of material was moved in the summer of 2017. The flat was left with the gentle 15 percent slope of the natural topography. The only issue with this cultivation area is some trash and leftover grow materials. The groundwater well is located in the northeast corner of this site, along with 6,000 gallons of water storage (2 x 2,500g). This is the consolidation area for the soil spoils from the entire parcel, which has been tarped and straw waddled.

Upper flat (cut and fill)

There is a 25,000-gallon tank farm located to the southeast of this flat.
Satellite imagery and site inspection of the upper flat indicate that this unpermitted graded flat was constructed over a wetland area. The cutbank has daylighted multiple seeps and two discrete points of subsurface flow. The discrete points (NE corner and SE corner- see Figure 2, 2a) are both producing flow that is concentrating and connecting to a Class 2 drainage downslope. The southern seep south runs along the cutbank edge of the flat and then flows west (downslope) to a saturated area that connects into a draw in the forested area. Further downslope, this flow eventually joins with the flows from the northeast corner. The concentrated water from the NE corner flows across the flat and exits at the point on the fillslope that resulted in a prominent fillslope slump. The mobilized fill from this failure extends around 50 feet downslope with approximate 1½ feet of depth, where it was mostly halted by a large patch of *juncus spp.* (see Appendix A for photos).

The permanent treatment recommendation is to outslope the flat by excavating the sidecast fill and replacing it back at the cutbank, shaping the fill to mimic the original topography as much as possible. While retrieving the fill, care should be taken to locate and follow the contact between the sidecast fill and the native ground. This will aid in minimizing the disturbance to original ground and recover as

much sidecast topsoil as possible. Fill should not be placed at the two locations where water piping was observed. Work will be done to improve the draws from these sources to connect with the downslope drainages. Rock will be used to stabilize the cutbank. Additionally, the connection between the spring sources and the natural channels downslope will be excavated to allow free flow of the water, at natural grade. This will minimize potential future water quality issues such as diversions, mudflows, and sediment delivery.

General Property Conditions

After the cultivation operation was shut down in 2015, the leasee left the property in disarray. There were old grow bags scattered throughout the flats, trash and abandoned materials all over. This was photo documented prior to the discharger's takeover of the property. On the February 2017 site visit, trash was almost completely gone, grow materials were stored or properly disposed of, and the bags had all been dumped into a pile and were properly stored. However, the spoils piles still remained where the indoor buildings are located. The landowner was advised to condense these piles as much as possible by hand, tarp the piles, and lay two or three rows of straw waddles on the downhill side to contain any runoff. The spoils piles were cleaned up as of April 2017.

Upon visiting the abandoned residential structure in the southwest corner of the parcel, we saw a large pile of trash underneath what appeared to be an open garage (not enclosed). To our knowledge, the owner had no idea that this was an issue. He has been advised to clean this area up. The lock on the gate to this area had been cut, so there is a possibility that random people in the area have been using this site as a dump location, instead of properly disposing of the trash themselves.

The residence septic is failing and has the potential to leak into to the adjacent creek. An emergency permit to install a new functioning septic has been applied for with Humboldt County.

List of Chemicals Stored Onsite & Information about Use

At the time of the initial site visit, July 13, 2016, no cultivation was taking place. However, cultivation did take place late in the season. Due to the timing of our visit and when they started cultivation, no data is known for what nutrients were used. The information they did give us however, was that they were planning on growing 100% organic.

For future compliance, a **log of nutrient use** stating type of nutrient/amendments being added with NPK ratios (where available) will be provided by the client to track and monitor the amounts applied over the growing season. A monitoring log will be kept onsite for future reference and documentation of nutrient applications.

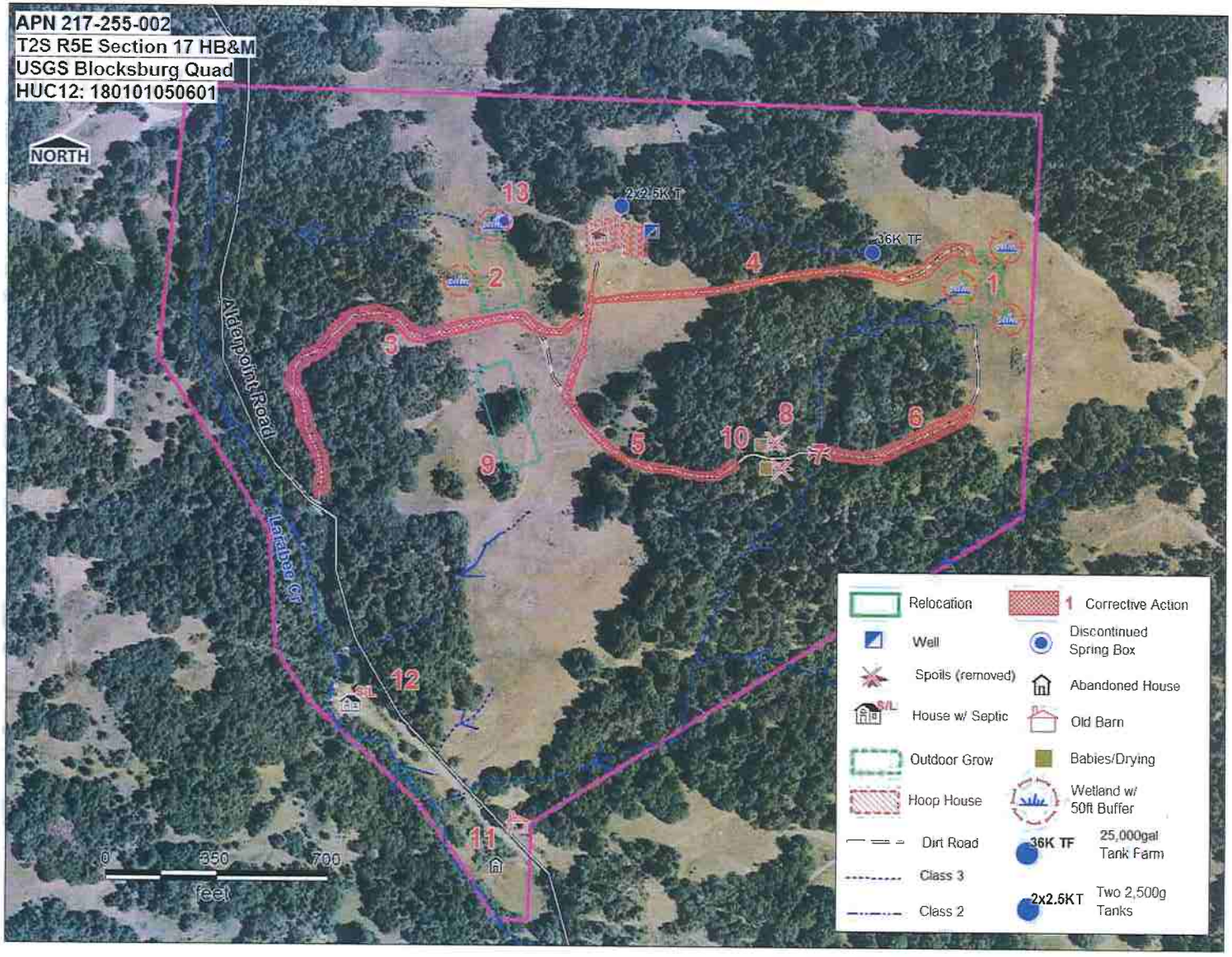
Water Use

For 22,000 square feet of canopy space, the watering as reported in the Monitoring Reporting Program totaled **207,500 gallons**. This is just an estimate of watering rates starting in late July of 2016. The well water was used for the cultivation; and the well was deemed forbearance free by CDFW.

The monthly gallons totals (starting late July) are as follows; 22,000, 77,500, 75,000, 35,000. These numbers were derived from the approximate number of plants and estimates of what each plant would require that were given to us by the applicant. There is a total of 100,000 gallon of storage on property.

A water meter was installed in December 2016 to keep accurate records of the water used for irrigation and domestic use.

Figure 3 - Corrective actions map for parcel 217-255-002



Corrective Actions - Please refer to Figure 3

Table 1 - Features that need improvement (See App. B for Associated Standard Conditions)

Unique Map Points	Map Point Descriptions	A.S.C	Temporary BMP	Permanent BMP	Priority for Action	Time Schedule for completion of Permanent BMP	Completion Date
1	Covered Wetland; Upper Flat	3a, 3b	Remove all grow materials	Retire flat and recontour	1	Sept. 30, 2017	
2	Partially covered Wetland; Lower Flat	3a, 3b	Remove all grow materials	Retire flat and recontour	1	Sept. 30, 2017	
3	Alderpoint Road gate to the middle flat	1a, 1b	Do not drive	Install rolling dips. rock	1	Sept. 30, 2017	
4	Road reach from middle flat to upper flat	1a, 1b	Do not drive	Install dip, rock, retire upper section	1	Sept. 30, 2017	
5	Road reach from middle flat to the upper buildings	1a, 1b	Do not drive	Install waterbars, rock	1	Sept. 30, 2017	
6	Road from upper buildings to the upper flat	1a, 1b	Do not drive	Install waterbars, retire road	1	Sept. 30, 2017	
7	Ford Crossing	2d	Do not drive	Remove Crossing	1	Sept. 30, 2017	
8	Spoils in Buffer	4a	Tarp and Straw Waddle	Move pile to new location	2	May 15, 2017	April, 2017
9	New Cultivation Area	3a	NA	Move canopy space from retired flats here	2	May 15, 2017	June, 2017
10	Buildings without gutters	1c	NA	Install gutters on both buildings	1	Sept. 30, 2017	
11	Trash in open building	11c	Secure gate	Remove and properly dispose of trash	1	Sept. 30, 2017	
12	Failed Septic	11a	Use regularly serviced porta potty	Replace septic with functioning permitted septic	1	December 31, 2017	
13	Historic unused Spring Box	5e	NA	Remove Spring Box and concrete cylinder	1	Sept. 30, 2017	

Priority time frames: 1 is high priority with treatment being planned to occur immediately; 2 is a high priority for treatment to occur prior to the start of the non-diversion period; 3 is a moderate priority for treatment to occur within a year, or prior to the winter of the second season of operations; 4 is a lower priority with treatment being planned within the shortest time possible, but no later than the expiration of this Order (five years).

1) The Upper Flat: treatment recommendation is to outslope the flat by excavating the sidecast fill and placing it back at the cutbank, shaping the fill to mimic the original topography. While retrieving the fill, care should be taken to locate and follow the contact between the sidecast fill and the native ground. This will aid in minimizing the disturbance to original ground and recover as much sidecast topsoil as possible. Fill should not be placed at the two locations where water piping was observed. Work will be done to improve the draws from these sources to connect with the downslope drainages. Rock will be used to stabilize the cutbank. Additionally, the connection between the spring sources

and the natural channels downslope will be excavated to allow free flow of the water, at natural grade. This will minimize potential future water quality issues such as diversions, mudflows, and sediment delivery. The temporary BMP has been completed as of April 2017; all cultivation infrastructure has been removed from the flat.

Following the recontouring of the flat that area will be seeded with Habitat Mix from Pacific Coast Seed Company. This mix consists of native grasses (*Bromus carinatus* (Native California Brome), *Elymus glaucus* (Blue Wildrye), *Hordeum californicum* (California Barley), *Festuca idahoensis* (Idaho Fescue), *Nassella pulchra* (Purple Needlegrass), and *Poa secunda* (Pine Bluegrass). It will be seeded at a rate of 40lbs per acre. Therefore 32lbs will be needed for the upper flat. The area will then be covered with weed free straw.

2) The Lower Flat: the permanent treatment is to recontour the flat by retrieving the sidecast fill, placing it back at the cutbank and shaping the fill to mimic the original topography. The temporary BMP has been completed as of April 2017; all cultivation infrastructure has been removed from the flat.

   Following the recontouring of the flat that area will be seeded with Habitat Mix from Pacific Coast Seed Company. This mix consist of native grasses (*Bromus carinatus* (Native California Brome), *Elymus glaucus* (Blue Wildrye), *Hordeum californicum* (California Barley), *Festuca idahoensis* (Idaho Fescue), *Nassella pulchra* (Purple Needlegrass), and *Poa secunda* (Pine Bluegrass). It will be seeded at a rate of 40lbs per acre. Therefore 23lbs will be needed for the lower flat. The area will then be covered with weed free straw.

3) Road reach from the Alderpoint Road gate to the middle flat: The road reach from the gate to middle flat will be maintained. The 300 feet of road closest to the gate is stable and may not need treatment. As the road grade increases, however, approximately five rolling dips are needed, as the current waterbars are not functioning. Additional surface rocking is also needed to minimize road surface erosion.

4) Road reach from middle flat to upper flat: The ~900-foot road reach from the middle flat to the tank farm will be maintained for access to 36,000-gallon tank farm along it. Rock and rolling dips will be applied between the middle flat and the tank farm. Between the tank farm and upper flat the road will be retired. Three aggressive tank traps will be installed.

5) Road reach from middle flat to the upper buildings: The ~1,150 foot road reach from the middle flat to the indoor buildings will be maintained. The recommendation is to install two additional waterbars on this reach and rock with coarse angular rock.

6) Road from upper buildings to the upper flat: The historic road reach from the indoor buildings to the upper flat will be retired. Access is blocked by a downed tree and overgrown brush at its lower end, and has not been used in some years. This reach contains the property's one watercourse crossing, a stable ford/dip crossing rocked with river run cobble was determined to have diversion potential by CDFW and will be restored. There are existing waterbars on this road that are not functioning; and 600 feet of this road delivers to this crossing due to the non-functioning waterbars. Additional cross

road drains are recommended, with care taken to assure any directed runoff will be 100% prevented from flowing back onto to the road tread due to micro-topography.

7) Ford Crossing: The road has not been used in many years and is blocked by a fallen tree and brush just west of this crossing. The crossing is rocked with nice river cobble, but appears to be undersized to accommodate a Q=100 flow event without diverting and eroding an unknown amount of deliverable sediment. The channel width upstream is about 4'w x 1'd; the ford is about 3 feet wide by 0.5 feet deep. The ford crossing will be restored to a 4-foot-wide channel with a bankfull depth of 1.5 feet minimum. The restoration will disturb approximately 25 feet of channel, or 125 ft2 of areal disturbance. Additionally, waterbars will be improved and/or relocated to disconnect the road input to this stream (see item 6 above).

8) (*Completed as of April 2017*) Spoils piles will be moved outside of the Riparian Buffer Zone and properly stored.

9) (*Completed as of May 2017*) Relocate lost cultivation square footage to new area outside any riparian buffer zones.

10) Buildings without Gutters: A gutter system will be installed on the two processing buildings

11) Trash in Open Building: All trash will be removed and disposed of at a proper legal location. Receipts for trash disposal will be kept as a record of proper disposal.

12) Failed Septic: The failed septic in the residence will be replaces with a permitted properly functioning septic system

13) Historic Spring Box: The site works consist of a wooden box and an old section of concrete culvert in a hole surrounded by a spoils berm on the western edge. The treatment here is to remove the works and the berm and allow the spring to connect, at high flow, to a Class 3 stream downslope.

And a nutrient use log for recording the type of nutrient/amendments being added with NPK ratio (where available) will be provided to the client to track and monitor the reference, timing, and amounts used over the growing season. This monitoring log will be kept onsite as documentation of nutrient applications.

Winter Site Preparation

Prior to winter rains at the end of the growing season the following steps will be taken to prepare the site for winter.

- Soil used in cultivation will be covered with straw mulch or plastic cover, properly contained when not in use
- Cannabis stems and root balls will be burned or hauled off site to be discarded
- All nutrients, fuels, and other chemicals will be placed in a secure storage shed
- All cultivation trash and debris will be properly disposed of
- Roads will be checked for functioning dips and waterbars

Monitoring element to ensure that BMPs are being implemented and to evaluate their effectiveness

Corrective Action Monitoring

Items 1-7, 10, 11, and 13 will be checked for competition by NRM after September 30, 2017. These corrections will be photo documented. Upon competition if Item 12 the permit for the septic will be submitted to NRM.

Annual Monitoring

Fall / Winter Monitoring

Monitoring for this site will follow the revised Appendix C from the Order No. 2015-0023. Annual monitoring will be done each year. At a minimum it will be done prior to October 15th, by December 15th, and immediately following a precipitation event with 3 inches of accumulation in 24hr period. Each monitoring session the following items will be inspected:

1. Pumps, nutrients, fertilizers, and any petroleum products are stored in a dry, enclosed location.
2. Soil and any spoils are properly contained and covered to prevent nutrient leaching.
3. Waterbars installed

This monitoring may be done by the landowner/registrant. Photos will be taken at each monitoring point. These photos along with the notes taken during the monitoring will be kept on-site. The monitoring forms and photos will be submitted by the landowner/registrant to NRM or the RWQCB.

Growing Season Monitoring

During the growing season the landowner will monitor the following items at least monthly:

- Tanks, bladders, and water lines to ensure there are no leaks
- Cultivation area during or immediately after watering to ensure irrigation water is soaking into the surface (not running off)
- Cultivation area to ensure that all fertilizers are properly contained in the storage shed, that all trash and debris is properly contained and secured.

The landowner/registrant will keep a record of the dates this monitoring was completed, if any corrective action was necessary, and what actions were taken. A copy will also be kept on file at NRM.

Annual monitoring reports will be submitted annually by March 31st of each year to the Water Board. The report will include the reporting from in Appendix C.

Water Resource Protection Plan

Name of Legally Responsible Person (LRP)_____

Title for LRP (owner, lease, operator, etc.)_____

Signature:_____ Date:_____

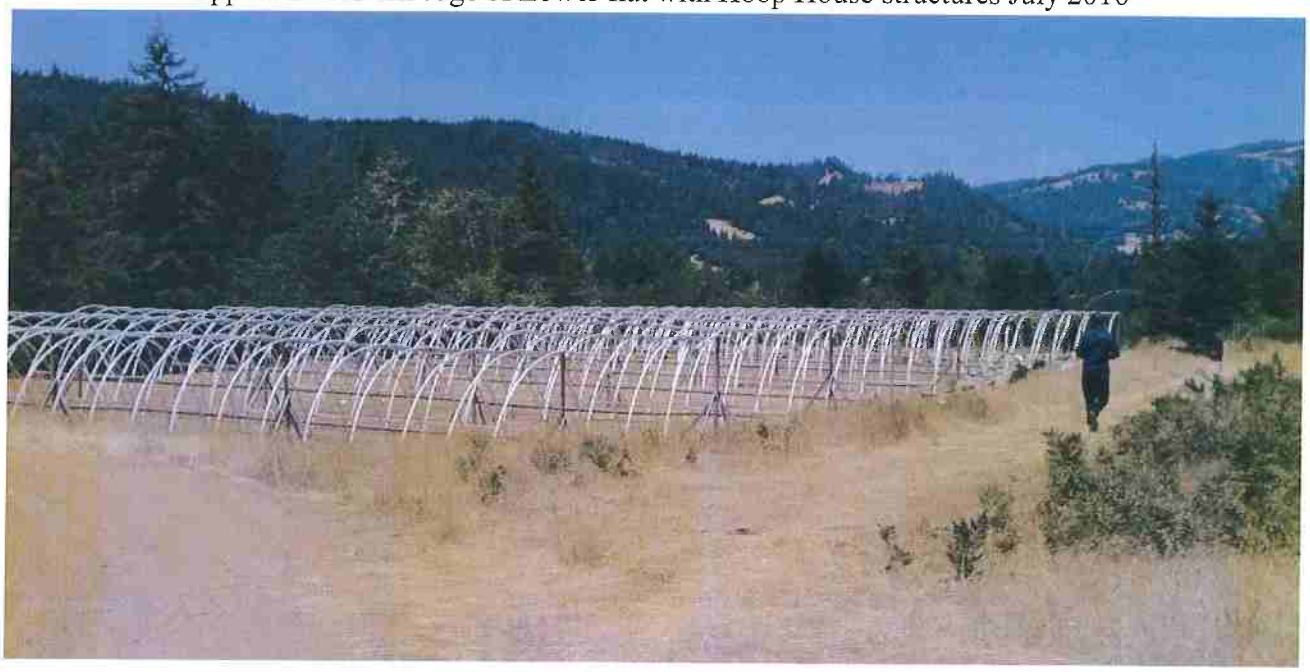
WRPP prepared by: **Natural Resources Management Corp. (NRM)**

Date:_____

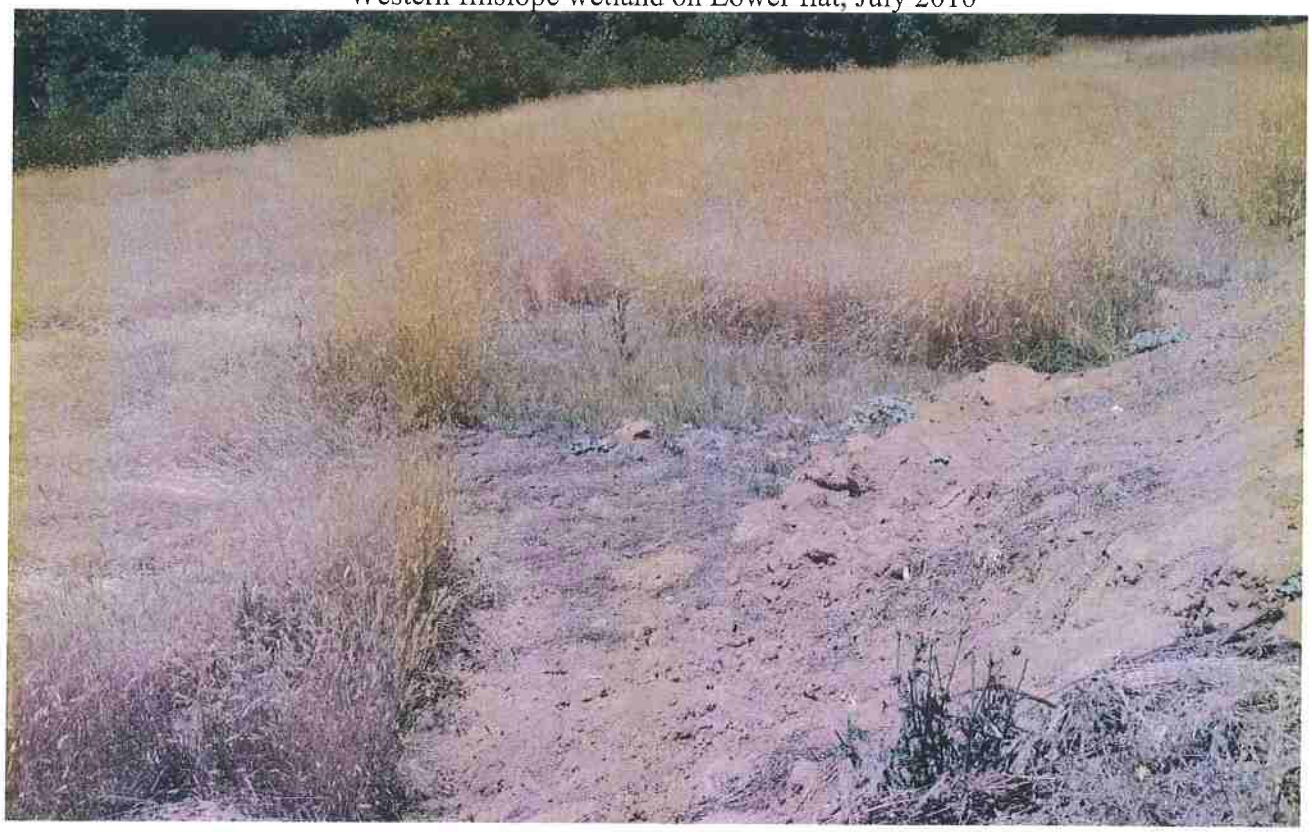
NRM Signature:_____

Appendix A. Photo Documentation **Photos taken July 13, 2016 and Feb. 3, 2017**

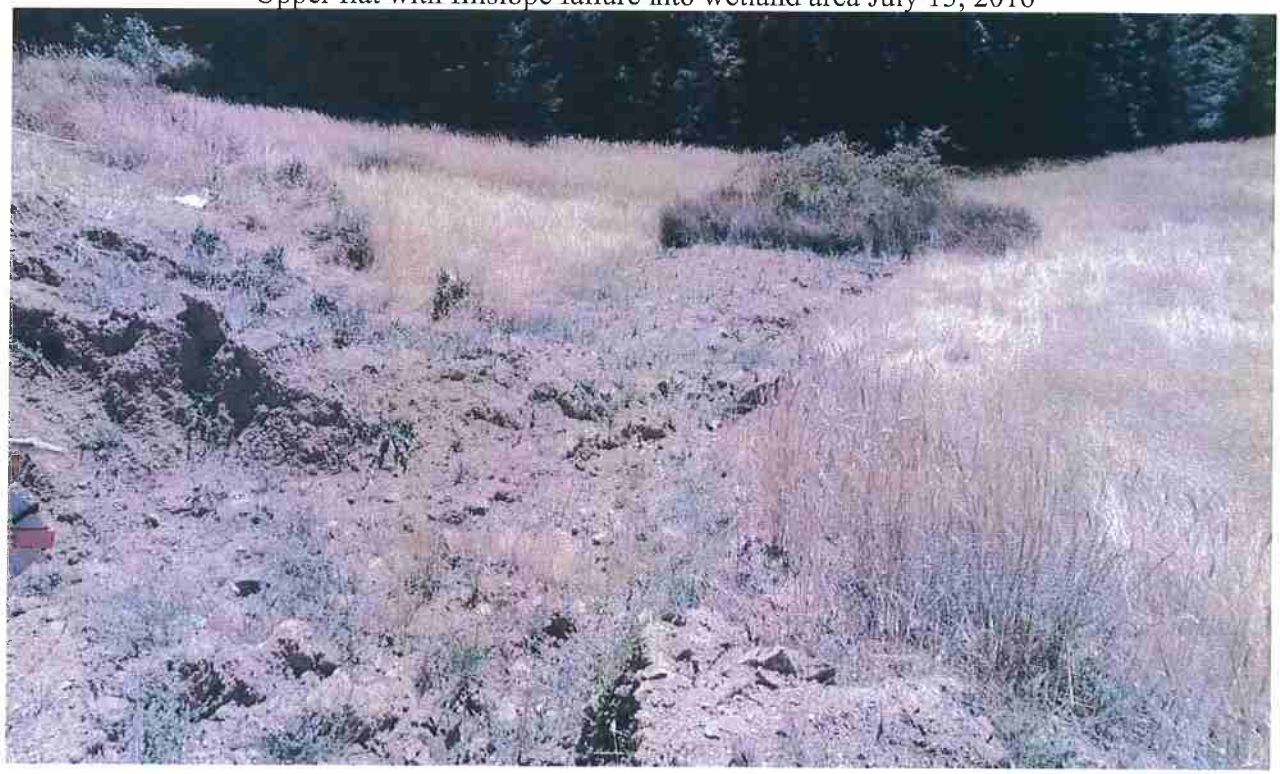
Upper and eastern edge of Lower flat with Hoop House structures July 2016



Western fillslope wetland on Lower flat, July 2016

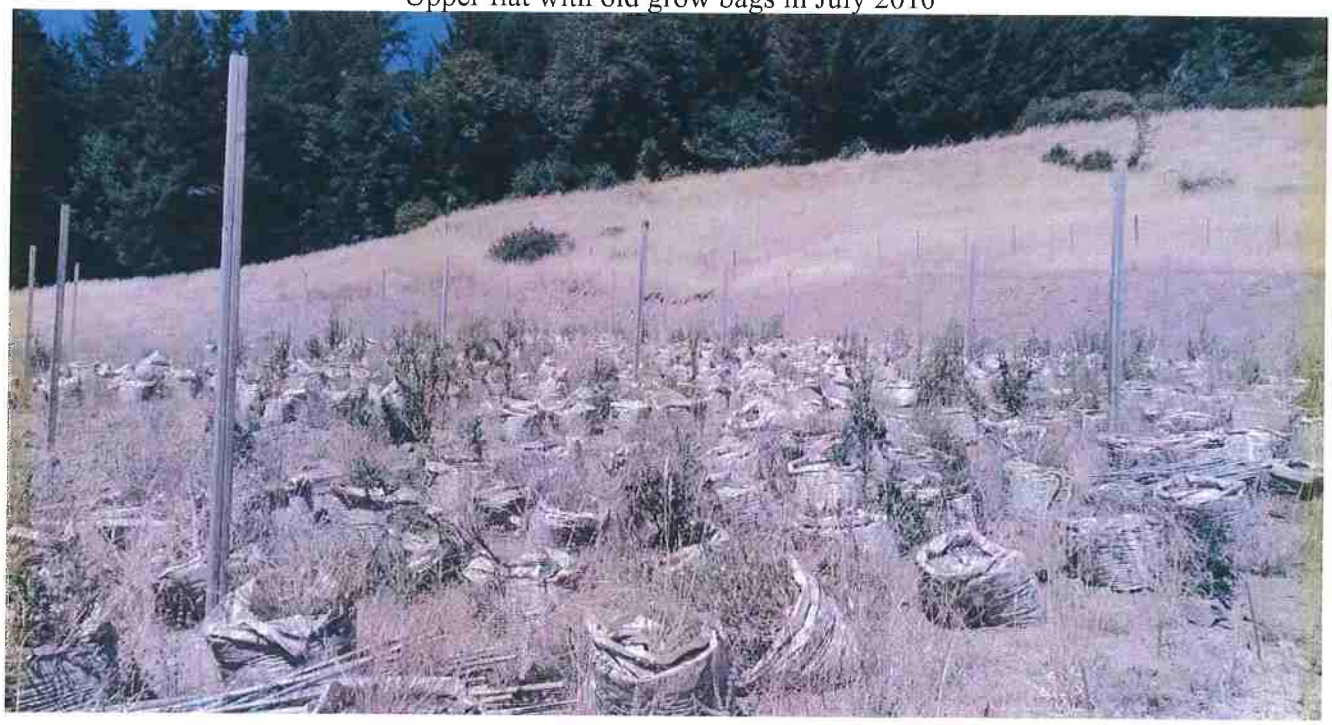


Upper flat with fillslope failure into wetland area July 13, 2016



Same fillslope slump on upper flat in February 2017

Upper flat with old grow bags in July 2016

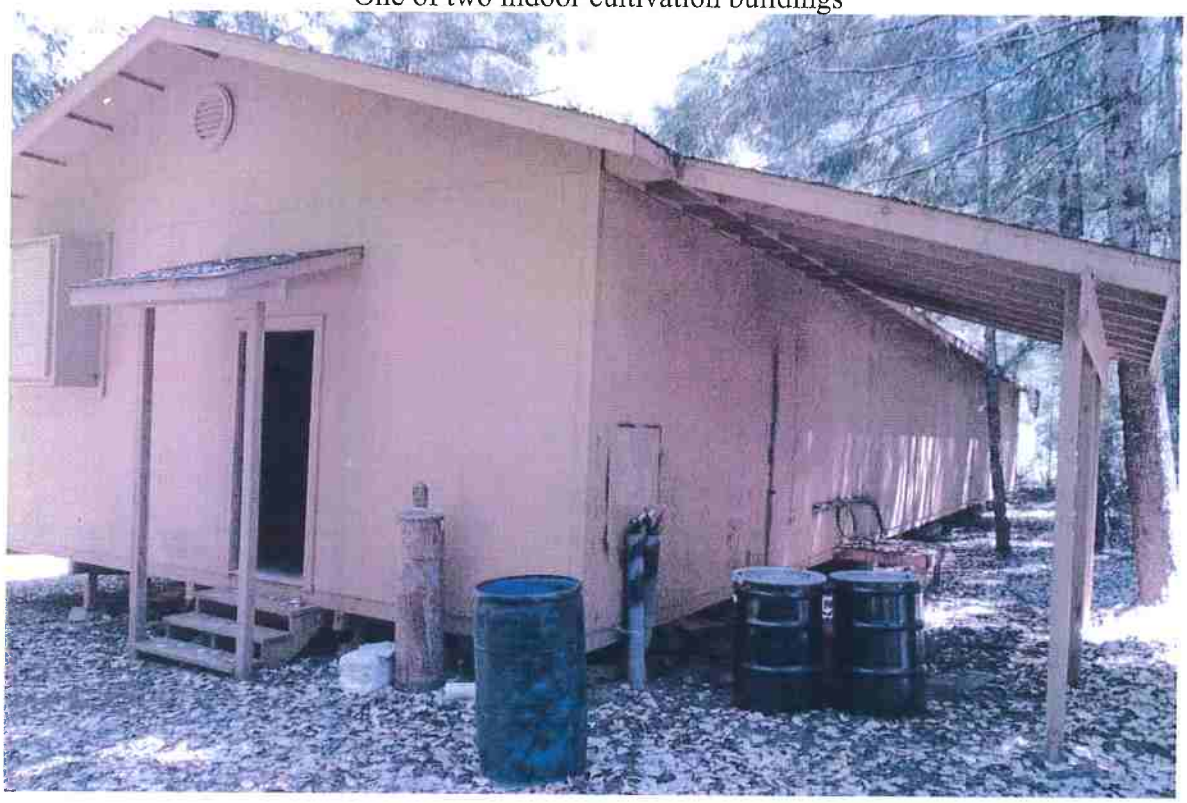


Cutbank view of Upper Flat in February 2017

Upper flat in February 2017, looking towards southern edge

Rocked Crossing, looking upstream (perpendicular to road) – February 2017

One of two indoor cultivation buildings



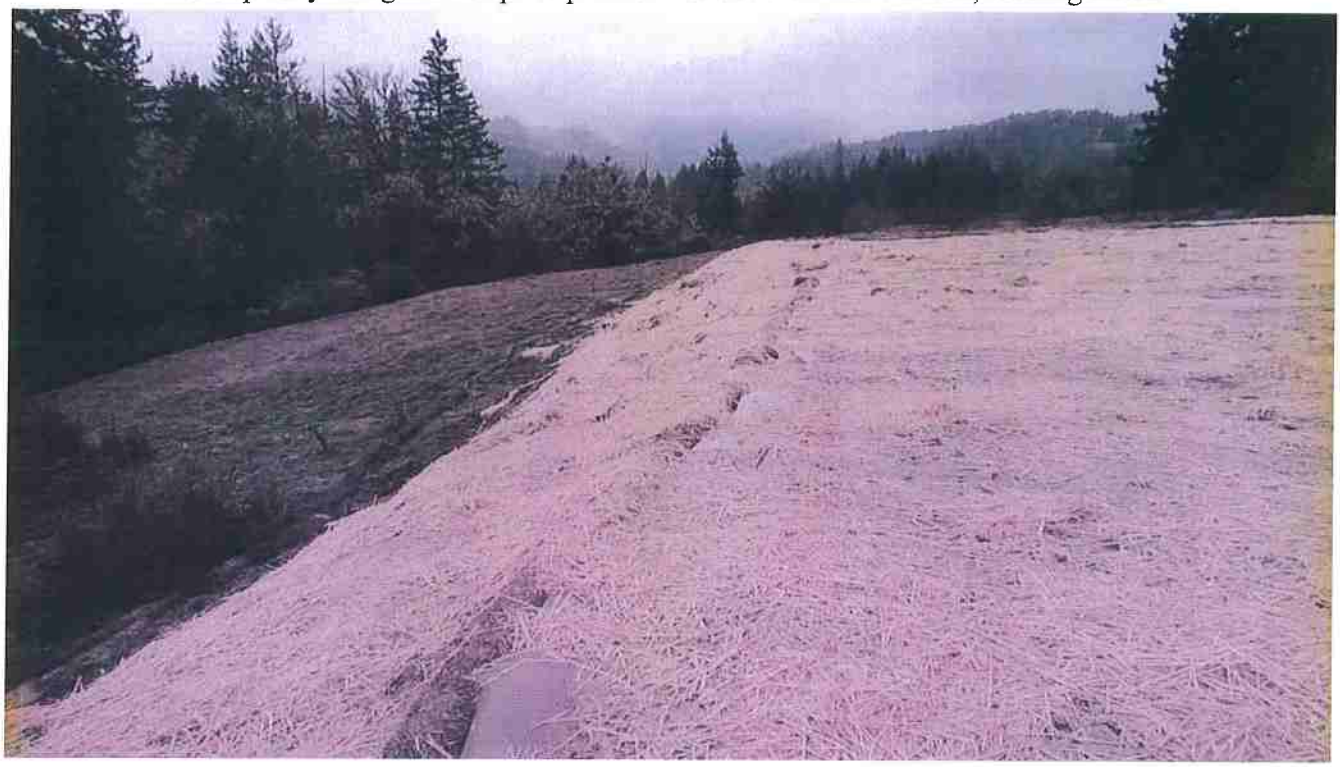
Non-jurisdictional (groundwater) well, July 2016

Northern wetland area on Lower flat, looking south across the flat

Northern wetland area on Lower flat, looking downslope or northwest

Southern fillslope and wetland area on lower flat, looking west

Temporary mitigation steps to protect wetland area at lower flat, looking north.



One point requiring road improvement between main gate and lower flat (February 2017)

Appendix B. Associated Standard Conditions

I. As described in the Order, dischargers will fall within one of three tiers.

Discharger shall be in the tier that covers the most impactful part of the operations (i.e., different sections of a property cannot be divided among the tiers). **All dischargers**, regardless of Tier are subject to the standard conditions in section **I.A,** MRP section I.D., and General Terms, Provisions and Prohibitions. **Tier 2 Dischargers** are also subject to section **I.B. (a Water Resources Protection Plan)**, and Tier 3 Dischargers are subject to sections I.A., I.B.(if cultivating cannabis), and I.C.

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.

b. Roads, driveways, trails, and other defined corridors for foot or vehicle traffic of any kind shall have adequate ditch relief drains or rolling dips and/or other measures to prevent or minimize erosion along the flow paths and at their respective outlets.

c. Roads and other features shall be maintained so that surface runoff drains away from potentially unstable slopes or earthen fills. Where road runoff cannot be drained away from an unstable feature, an engineered structure or system shall be installed to ensure that surface flows will not cause slope failure.

d. Roads, clearings, fill prisms, and terraced areas (cleared/developed areas with the potential for sediment erosion and transport) shall be maintained so that they are hydrologically disconnected, as feasible, from surface waters, including wetlands, ephemeral, intermittent and perennial streams. 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, waterbar, 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).

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

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

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

f. Stream crossings shall be maintained so as to prevent stream diversion in the event that the culvert/crossing is plugged, and critical dips shall be employed with all crossing installations where feasible. If infeasible to install a critical dip, an alternative solution may be chosen.

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 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 conditions on enrollment, including site-specific riparian buffers and other BMPs beyond those identified in water resource protection plans to ensure water quality protection. 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.

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.

4. Spoils Management

a. Spoils shall not be stored or placed in or where they can enter any surface water. 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.

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. 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-12 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. "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.

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. 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 offstream 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.

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 (see footnote on previous page).

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

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 labelling 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.

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.

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

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.

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.