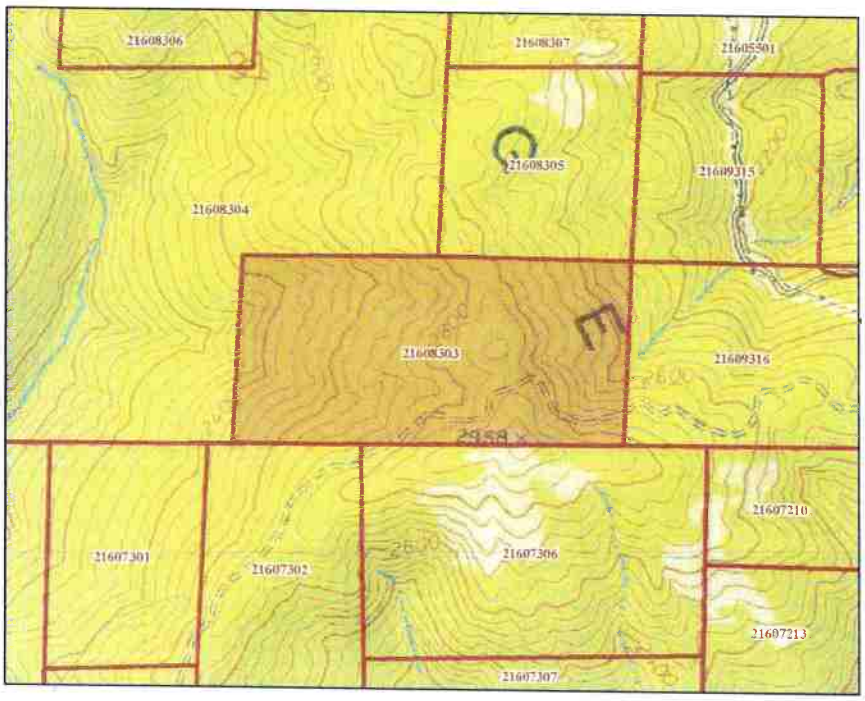
Water Resource Protection Plan (WRPP)

for

APN 216-083-003

Located at
4244 Bell Springs Road
Garberville, California

June 2018



Prepared for:
WD ID# 1B161238CHUM
PWA ID# PWA180101060202-5312
4244 Bell Springs Road, Garberville, CA

Prepared by:
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1.0 PROJECT SUMMARY

This report documents Pacific Watershed Associate's (PWA) Water Resource Protection Plan (WRPP) for APN 216-083-003 located at 4244 Bell Springs Road, Garberville, CA, as shown on Figure 1. This property is located approximately eight miles southeast of Garberville, Humboldt County, California, and hereinafter is referred to as the "Project Site." Based on either site conditions and/or total cultivation area, this property falls within **Tier 2** of the NCRWQCB Order No. 2015-0023, Waiver of Waste Discharge and General Water Quality Certification for Discharges of Waste Resulting from Cannabis Cultivation and Associated Activities or Operations with Similar Environmental Effects ("Order"). Properties that fall into Tier 2 of the Order are required to develop a WRPP. Therefore, as required, this WRPP has been developed for you based on site inspections made by PWA on your property. PWA's recommendations for any remediation or corrective actions are a result of water quality requirements under the Order, including Best Management Practices (BMPs) designed to meet those requirements (Appendix A). This WRPP documents the findings of a site visit conducted on September 20, 2016 by PWA geologists Courtney Sundberg and Michelle Robinson, when a reconnaissance level investigation of the property was conducted and the conditions of the property noted.

2.0 CERTIFICATIONS, LIMITATIONS AND CONDITIONS

This WRPP has been prepared by, or under the responsible charge of, a California licensed professional geologist or engineer at PWA and all information herein, including treatment recommendations, are based on observations, data and information collected by PWA staff.

This WRPP has been prepared to: 1) describe the general conditions of the property at the time of our inspection; 2) summarize the site conditions and how they relate to the NCRWQCB twelve (12) Standard Conditions of the Order; 3) provide recommendations for remediation and/or correction of existing or potential water quality threats or impacts; and 4) recommend work to be conducted on this property to meet the 12 Standard Conditions of the Order. The analysis and recommendations submitted in this WRPP are based on PWA's evaluation of the Project Site and your activities which fall under the Order.

In this WRPP, PWA has described the current conditions of the property and any water resource and water quality risk factors we observed at the time of our site inspection. PWA is not responsible for problems or issues we did not observe on our site inspection, or for changes that have naturally occurred or been made to the property after our site review. Site changes should be reported to PWA when they occur. The interpretations and conclusions presented in this WRPP are based on a reconnaissance level site investigation of inherently limited scope. Observations are qualitative, or semi-quantitative, and confined to surface expressions of limited extent and artificial exposures of subsurface materials. Interpretations of problematic geologic, geomorphic or hydrologic features such as unstable hillslopes, erosional processes and water quality threats are

based on the information available at the time of our inspection and on the nature and distribution of existing features we observed on the property.

PWA has also included recommendations for remediation and/or correction that are based on these observations. The recommendations included in this WRPP are professional opinions derived in accordance with current standards of professional practice, and are valid as of the date of field inspection. No other warranty, expressed or implied, is made. Furthermore, to ensure proper applicability to existing conditions, the information and recommendations contained in this report shall be regularly reevaluated and it is the responsibility of the landowner and/or lessee operating under the Order to ensure that no recommendations are inappropriately applied to conditions on the property that have changed since the recommendations were developed.

If site conditions have changed for any reason, the site should be reevaluated and the WRPP revised and updated as required. These conditions include any changes in land management activities or property conditions that have occurred since our site visit (regardless of what they are, how they occurred, or who performed them). Similarly, if the landowner/lessee uses portions of this property not identified or covered under the current WRPP, this Water Resource Protection Plan will need to be updated with the new information, including possible additions or changes to the recommended remedial or corrective actions (Table 1) and BMPs (Appendix A).

If the property owner has enrolled their property under the Order, they are responsible for complying with all the requirements thereunder, regardless of who is operating or cultivating on that property. If the property is being formally or informally leased to an operator, and the lessee has enrolled under the Order, then the lessee is responsible for complying with the Order's requirements, including the WRPP and related recommendations and requirements. If the lease expires or the lessee is not otherwise available or does not respond to information requests by the NCRWQCB or PWA, then the landowner automatically assumes responsibility under the Order for the requirements therein and for all related penalties or actions brought by the NCRWQCB.

If at any time in the future the property is to transfer ownership, it is the responsibility of the current owner, or their representatives, to ensure that the information and recommendations contained herein are called to the attention of any future owner or agent for the property. Unless this WRPP is modified by the NCRWQCB, or another approved Third Party Program representative, the findings and recommendations contained in this WRPP shall be utilized as a tool while implementing the recommendations made within this WRPP. Necessary steps shall be taken to see that contractor(s) and subcontractor(s) carry out such recommendations in the field in accordance with the most current WRPP and BMP standards.

As a Third Party Program, PWA will be responsible for the data, interpretations and recommendations developed by PWA, but will not be responsible for the interpretation by others of that information, for implementation of corrective actions by others, or for additional or modified work arising out of those plans, interpretations and recommendations. PWA assumes no liability for the performance of other workers or suppliers while following PWA's recommendations in the WRPP, unless PWA is under contract to perform or oversee those activities. Additionally, PWA is not responsible for changes in applicable or appropriate standards beyond our control, such as those arising from changes in legislation or regulations, or the broadening of knowledge which may invalidate or alter any of our findings or recommended

actions.

Any WRPP plan review or construction management services that may be needed or identified in the recommendations sections of this report are separate tasks from the preparation of this WRPP, and are not a part of the contract under which this WRPP was prepared. If requested, additional PWA field inspections, surveys, WRPP revisions/updates, project layout, design, permitting, construction oversight/management, or other related services arising from tasks described and recommended in the WRPP may be performed under separate agreements requiring advance notice and contracting.

PWA's services consist of professional opinions and recommendations made in accordance with generally accepted principles and practices. No warranty, expressed or implied, or merchantability or fitness, is made or intended in connection with our work, by the proposal for consulting or other services, or by the furnishing of oral or written reports or findings. If the client desires assurances against project failures, they shall obtain appropriate insurance through their own insurance broker or guarantor.

This WRPP is considered a living document and shall be updated at least annually, or sooner if conditions have changed or land management actions have been undertaken after our site inspection. As an official part of the Waiver Program, this WRPP (including all its text, appendices, maps and photos) shall remain onsite and available for NCRWQCB staff to inspect and review upon request.

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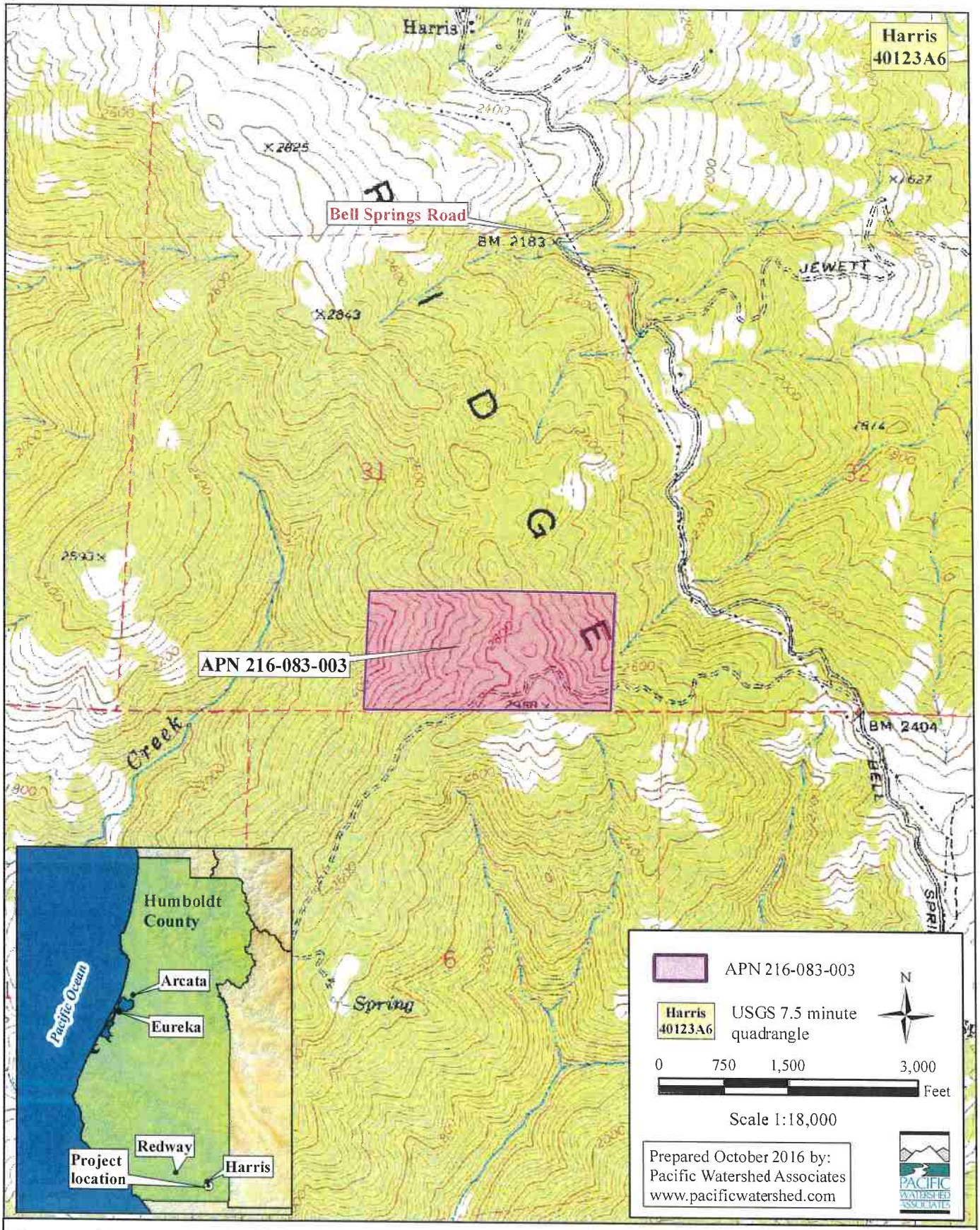

Figure 1. Location map for WDID #1B161238CHUM, APN 216-083-003, Harris, Humboldt County, California.

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3.0 INTRODUCTION

This Water Resources Protection Plan (WRPP) summarizes the results of Pacific Watershed Associate's (PWA) site visit and subsequent analysis and documentation of site conditions on APN 216-083-003 located at 4244 Bell Springs Road, Garberville, California, as shown on Figure 1 and hereinafter referred to as the "Project Site." The WRPP describes and addresses the required elements and compliance with the 12 Standard Conditions established by the NCRWQCB Order No. 2015-0023 (Order) to protect water quality from cannabis cultivation and related activities. PWA has identified certain areas where the Project Site does not fully meet all 12 of the Standard Conditions of the Order. Section 4, below, identifies and discusses each of the 12 Standard Conditions as related to your property with regard to compliance with the NCRWQCB's Order.

This WRPP contains the following required sections:

1. Legible map (Figure 2) depicting the required site elements as stated on Appendix C of the Order and features associated with the 12 Standard Conditions of the Order;
2. Description of current site conditions, compliance with the 12 Standard Conditions, and prioritized remediation or corrective actions needed to bring the site into compliance with the requirements of the Order;
3. A monitoring and inspection plan to ensure BMPs used to protect and prevent impacts to water quality are being implemented as recommended by PWA (implementation monitoring), and that they are effective (effectiveness monitoring);
4. Water use, including documentation of water source, water storage and water use (quantity) on a monthly basis, and water conservation measures that are employed to prevent adverse impacts to water quality and water quantity in the watershed;
5. List of fertilizers and chemicals stored and used onsite, including a log of the frequency and quantity of these materials used.

4.0 STANDARD CONDITIONS CHECKLIST FOR APN 216-083-003 as of 9/20/2016

The NCRWQCB has developed a set of 12 Standard Conditions that shall be followed and implemented to protect and improve water quality as required under the NCRWQCB's Order. For a property to become compliant with the Order, all 12 Standard Conditions must be fully satisfied.

The following section details the specific requirements listed and described in the Order for each of the 12 Standard Conditions. Each Standard Condition has from 1 to 6 sub-requirements (*listed in italic type*), each of which must be satisfied to comply with the Order. The checklist developed by PWA for your property indicates: 1) whether the Standard Condition or Standard Condition sub-requirement was adequately met as of the date of PWA's field inspection, 2) PWA's observations and comments related to the Standard Condition or Standard Condition sub-requirement, 3) whether a relevant photo has been taken and included in the WRPP, and 4) recommended corrective or remedial actions that need additional work to meet the requirements of the Order.

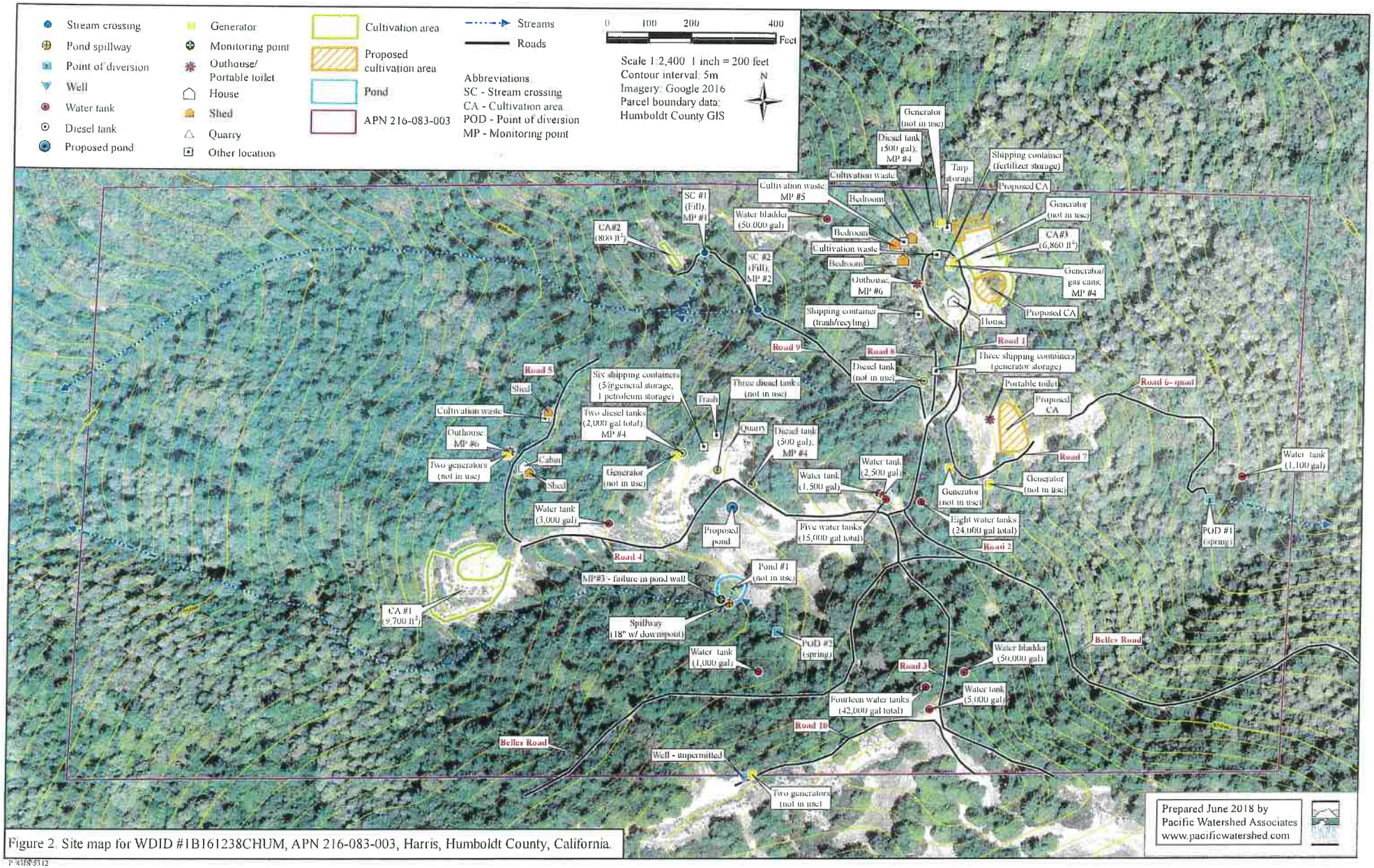

Figure 2. Site map for WDID #1B161238CHUM, APN 216-083-003, Harris, Humboldt County, California.

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In Section 5 of this WRPP, PWA has provided a summary prioritized list (Table 1) of the recommended treatments and actions to be implemented by you to meet the requirements of the Order. PWA will consult with you to review the WRPP document and findings, and to set a preliminary schedule for implementation of the recommended measures for achieving compliance with the Order. Please note that some of the PWA recommended actions are based on regulatory requirements and deadlines, while others can be scheduled to fit the needs of both you and your property.

4.1 Standard Condition #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.*

Meets condition? No

Observations/Comments: Approximately 1.4 miles of road (including quad trails) were inspected on the Project Site during the inspection. Roads within the Project Site are maintained, and stable. However, all roads lack sufficient drainage structures to effectively disperse flow and minimize hydrologic connectivity. The landowner has proposed to decommission Road 9 and the associated cultivation area, and two stream crossings in an effort to reduce traffic on the rural road network and minimize the threat and impacts to water quality.

Portions of the Project Site parcel are covered with second growth forests that may conceal abandoned (legacy) forest roads used in past logging; these may or may not contain eroding or potential sediment sources that pose a threat to water quality.

Photos: None

Corrective or remedial actions needed: Install permanent road drainage structures, which shape the road surface (such as rolling dips, ditch relief drains/culverts, etc.) where feasible to hydrologically disconnect road segments from surface waters and to disperse road surface runoff to prevent road surface erosion. See Appendix G for typical drawings of proper rolling dip design and installation. Install drainage structures and shaping, including berm removal, elsewhere, as needed, to disperse surface runoff to minimize road or graded pad surface erosion. PWA will work with you to select and implement some combination of road drainage features for controlling surface drainage from the road and cultivation sites such that there is little or no significant discharge of runoff to local stream channels. If certain roads are only used seasonally, install frequent (every 100 feet, or less) waterbars prior to October 15th every year and maintain waterbars as necessary to ensure proper winter drainage and to prevent erosion at their outlets. If you choose to discontinue the use of Road 9, decommission the road, by ripping (decompacting) the road surface, outsloping or installing cross road drains (including on the approaches to the stream crossings), seeding and mulching and blocking off road entrances.

Implement appropriate BMPs to all disturbed areas (such as recontouring slopes, seeding with grass, mulching with straw and re-planting with native riparian species, etc.) to minimize surface erosion and sediment transport, and to mitigate any other potential impacts to water quality.

Under the Order, all legacy roads on the Project Site are required to be inventoried and assessed for erosion sources and threats to water quality. You will need to identify and map all legacy roads (if there are any) and conduct a rapid erosion assessment to identify existing or potential sediment sources or pollution threats, if any, along these routes. If existing or potential legacy sediment sources that could impact surface waters are identified in the field, they will need to be treated using erosion prevention and erosion control treatments (see Appendix A).

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.*

Meets condition? No
Observations/Comments: See Standard Condition 4.1a observations/comments, above.
Photos: None
Corrective or remedial actions needed: See Standard Condition 4.1a corrective actions, above.

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.*

Meets condition? Yes
Observations/Comments: The road is maintained and stable with no surface runoff draining to potentially unstable slopes or earthen fills.
Photos: None
Corrective or remedial actions needed: None

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.*

Meets condition? No
Observations/Comments: Roads lack sufficient road drainage structures to hydrologically disconnect road reaches from watercourses.
Photos: None
Corrective or remedial actions needed: See Standard Condition 4.1a corrective actions, above.

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.*

Meets condition? No
Observations/Comments: See Standard Condition 4.1a observations/comments, above.
Photos: None

Corrective or remedial actions needed: See Standard Condition 4.1a corrective actions, above.

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

Meets condition? Yes
Observations/Comments: Currently, construction materials are stockpiled in a location with no erosion or transport to surface waters.
Photos: None
Corrective or remedial actions needed: None

4.2 Standard Condition #2. Stream Crossing Maintenance

a) Culverts and stream crossings shall be sized to pass the expected 100-year peak streamflow.

Meets condition? No
Observations/Comments: There are two (2) stream crossings (SC #1 and SC #2) on the Project site. SC #1 is a fill crossing located on a Class III watercourse with active erosion at the outboard road fill (OBF). SC #2 is a fill crossing on a near-origin Class III watercourse with a hydrologically connected left road approach. SC #1 and SC #2 will need to be upgraded to the 100-year peak streamflow and associated debris. If granted permission from Humboldt County to centralize the cultivation areas on the property, the landowner has proposed decommissioning the stream crossings, Road 9 and CA #2.
Photos: Photos 1 – 4; Monitoring Points (MP) #1, #2
Corrective or remedial actions needed: Upgrade SC #1 and SC #2 by installing armored fill crossings constructed to accommodate the 100-year peak flow and associated debris. Install permanent road drainage features (e.g., rolling dips) along the left road approach of SC #2 to hydrologically disconnect the road reach from the watercourse (see 4.1a for more information regarding road drainage features). Alternatively, you can decommission SC #1 and SC #2 by removing all the fill material, re-establishing the natural grade of each watercourse through the stream crossings and laying back channel embankments to 2:1 slope (50% gradient or less). Implement appropriate BMPs to all disturbed areas (such as recontouring slopes, seeding with grass, mulching with straw and re-planting with native riparian species, etc.) to minimize surface erosion and sediment transport, and to mitigate any other potential impacts to water quality.

b) Culverts and stream crossings shall be designed and maintained to address debris associated with the expected 100-year peak streamflow.

Meets condition? No
Observations/Comments: See Standard Condition 4.2a observations/comments, above.
Photos: Photos 1 – 4; MP #1-2
Corrective or remedial actions needed: See Standard Condition 4.2a corrective actions, above.

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.*

Meets condition? Yes
Observations/Comments: There are no crossings on fish-bearing streams on the Project Site. Both stream crossings are located on ephemeral Class III streams that do not support aquatic organisms.
Photos: None
Corrective or remedial actions needed: None

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.*

Meets condition? No
Observations/Comments: See Standard Condition 4.2a observations/comments, above.
Photos: Photos 1 – 4; MP #1-2
Corrective or remedial actions needed: See Standard Condition 4.2a corrective actions, above.

e) *Culverts shall align with the stream grade and natural stream channel at the inlet and outlet where feasible.*

Meets condition? N/A
Observations/Comments: There are no culverted crossings on the Project Site.
Photos: None
Corrective or remedial actions needed: None

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.*

Meets condition? Yes
Observations/Comments: Roads are effectively dipped through both stream crossings to prevent diversion during high flows.
Photos: Photos 2 – 8; MP #1-4
Corrective or remedial actions needed: None

Standard Condition #2. - General comments and recommendations: Provide notices and obtain all necessary permits prior to commencing work on any watercourse or for any stream crossing upgrades. Permits/notifications may include, and may not be limited to: CDFW LSAA 1602, SWRCB 401 Certification, and ACOE 404 Permit.

4.3 Standard Condition #3. Riparian and Wetland Protection and Management

a) *For Tier 1 Dischargers, cultivation areas or associated facilities shall not be located within 200 feet of surface waters. While 200 foot buffers are preferred for Tier 2 sites, at a minimum, cultivation areas and associated facilities shall not be located or occur within 100 feet of any Class 1 or 2 watercourse or within 50 feet of any Class 3 water course or wetlands.*

Meets condition? Yes
Observations/Comments: For this Project Site, all cultivation areas and associated facilities are located greater than 50 feet from any Class III watercourse (Figure 2). Except for selective clearing of several trees on and near the terrace surface during the initial construction, the riparian buffer is undisturbed and intact. There is no intent from the operator to disturb, modify or develop the existing riparian buffer within the ownership. The slope buffer is more than adequate as a filter for any errant waste or entrained sediment.
Photos: None
Corrective or remedial actions needed: None

b) *Buffers shall be maintained at natural slope with native vegetation.*
Meets condition? Yes
Observations/Comments: All buffers are well vegetated and at the natural slope.
Photos: None
Corrective or remedial actions needed: None

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.*
Meets condition? Yes
Observations/Comments: See Standard Condition 4.3a observations/comments, above.
Photos: None
Corrective or remedial actions needed: None

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.*
Meets condition? Yes
Observations/Comments: Riparian and wetland areas had minimal to no disturbance and were observed to maintain their essential functions regarding protection of surface waters.
Photos: None
Corrective or remedial actions needed: None.

4.4 Standard Condition #4. Spoils Management

a) *Spoils shall not be stored or placed in or where they can enter any surface water.*
Meets condition? Yes
Observations/Comments: Based on field observations it is PWA's opinion that the Project Site is currently compliant with this condition as there were no spoils observed during the project site inspection. All road fillslopes and building pads appear stable.
Photos: None
Corrective or remedial actions needed: None

b) *Spoils shall be adequately contained or stabilized to prevent sediment delivery to surface waters.*

Meets condition? Yes
Observations/Comments: See Standard Condition 4.4a observations/comments, above.
Photos: None
Corrective or remedial actions needed: None

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.*

Meets condition? Yes
Observations/Comments: See Standard Condition 4.4a observations/comments, above.
Photos: None
Corrective or remedial actions needed: None

Standard Condition #4 - General comments and recommendations: When spoils are on site, they should be stored in a stable location where there is no threat of delivery to surface waters.

4.5 Standard Condition #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 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.*

Meets condition? Unknown
Observations/Comments: The client procures water from two jurisdictional spring diversions, POD #1 and POD #2, and one unpermitted groundwater well located on the Project Site (Figure 2). There is a total of 192,100 gallons of water storage for irrigation and domestic uses in 32 rigid tanks and 2 water bladders, there is also one (1) on-stream pond with an 18 inch diameter plastic culvert spillway with a ½ round downspout, which is not in use. Based on a cultivation area of 16,560 ft^2, There may be enough water storage necessary to forbear (not divert) during the dry season.
Photos: Photo 5; MP #3
Corrective or remedial actions needed: A Water Budget should be developed and further refined to determine the required volume of water storage you will need to forbear (not divert surface flows) during the low flow period from May 15th through October 31st each year. A Water Monitoring Plan will also need to be developed and implemented to document the exact timing and volume of your water diversion, storage and use throughout the year (see general comments below). Under the Order, you are required to measure, document and report the water you divert, store and use throughout the year. PWA has created a simple log sheet to help you monitor this water data for your Project Site (Appendix D). This water data will help you refine the water budget and water storage requirements, and is required to be reported annually to the

NCRWQCB no later than March 31st for the preceding calendar year, and similarly to the State Water Resources Control Board, Division of Water Rights, by June 30th.

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.*

Meets condition? Yes

Observations/Comments: Water conserving strategies are currently being implemented include: 1) controlled hand watering; 2) growing some plants in ground to limit the effects of evaporation; and 3) the use of soil mediums that retain moisture and therefore limit the frequency of irrigation. The landowner proposed implementing drip irrigation at all cultivation areas in the future and installing a rainwater catchment pond. There are several other water conservation strategies that can be implemented.

Photos: None

Corrective or remedial actions needed: Continue to employ current water conservation techniques. In addition, evaluate and employ: 1) time or volume-limited drip irrigation; 2) irrigation scheduling; 3) the use of cover crops during rotations and winter to protect and increase soil fertility; 4) the use of compost and mulch fertilizer to improve soil structure and increase its water-holding capacity; and 5) capturing and storing rainwater for irrigation. Begin quantifying water use, testing drip rates, using timed and/or volume limited drip emitters, and incorporating water holding amendments and native soil during the initial soil preparation at the start of the season. Other water conservation measures should continue to be investigated and employed in order to most effectively maximize water use efficiency and minimize or eliminate summer diversions, including additional water storage (e.g., rigid tanks) and rainwater harvesting that will allow you to forbear in the dry summer months.

c) *For Tier 2 Dischargers, if possible, develop off-stream storage facilities to minimize surface water diversion during low flow periods.*

Meets condition? Yes

Observations/Comments: All existing and planned storage facilities are off-stream. The on-stream pond is not in use and was dry at the time of the site inspection. Currently, the Project Site has approximately 192,100 gallons of water storage in 32 rigid tanks and 2 water bladders. There are a total of two (2) points of diversions (POD) on the Project Site located on two jurisdictional springs (POD #1, #2), and one (1) unpermitted groundwater well which was established in 2009-10 by Bushnel Enterprises & Well.

Photos: None

Corrective or remedial actions needed: See Standard Condition 4.5a corrective actions, above. If necessary, add rainwater-fed water storage, including an off-stream pond and /or rigid rainwater catchment tanks.

d) *Water is applied using no more than agronomic rates.*

Meets condition? Unknown

Observations/Comments: Irrigation is limited to controlled hand watering and overwatering is unlikely. No sign of irrigation runoff was observed at the time of PWA's inspection.

Photos: None
Corrective or remedial actions needed: To verify compliance and further refine water use efficiency, start measuring and recording your average water usage on a per plant basis, based on type and size of plant pot, full term versus short season (light deprivation) plant, and type of irrigation. Observe and monitor soil moisture so watering, fertilizer and chemical applications are made only when necessary and overwatering and excess infiltration is avoided. This will allow you to refine the Water Budget for your operation and verify agronomic rates of watering.

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.*

Meets condition? No
Observations/Comments: There are two (2) points of diversions (POD #1, POD #2) on the Project Site located on two (2) springs, as well as one (1) unpermitted on-stream pond fed by two springs/near origin Class III stream, and one (1) unpermitted well. Initial Satements of Diversion and Use (ISDU) have been filed for the two PODs. An ISDU was also filed for the well, to document the well water use for cannabis irrigation. Small Irrigation Use Registrations (SIUR) have also been filed for POD #1, POD #2 and the well. To legally divert surface waters for domestic and commercial purposes, you will need to file for and maintain water rights and necessary permits.
Photos: None
Corrective or remedial actions needed: (1) Water diversion and water storage requires valid water rights documentation.

Supplemental Statements must be filed every year following the filing of an Initial Statement of Diversion and Use. Supplemental Statements (annual reports) must continue to be completed online through the eWRIMS Online Reporting prior to July 1 of that year (i.e. for water diverted during 2016, the Supplemental Statement is due by July 1, 2017). If the location of the existing point of diversion as identified on the Supplemental Statement has changed, the new location must be identified.
https://rms.waterboards.ca.gov/login.aspx?ReturnUrl=Default.aspx

Domestic water rights: If you plan to continue diversion of water from a jurisdictional spring, stream, or on-stream pond for your domestic water needs, and you plan to store that domestic water for more than 30 days, you will need to file a Small Domestic Use (SDU) appropriation with the State Water Resources Control Board (SWRCB) to cover your domestic use requirements such as drinking, bathing, cooking and fire control. As it currently stands, according to regulatory requirements, this type of water right cannot be used for commercial crop irrigation.

- Small Domestic Use (SDU) Appropriation Registration
  http://www.waterboards.ca.gov/waterrights/publications_forms/forms/docs/sdu_registration.pdf

Agricultural water rights: If you plan to continue flow diversions for your agricultural water needs, you need to maintain commercial water rights for your parcel.

The State Water Resources Control Board, Division of Water Rights (SWRCB, DWR) has developed a Small Irrigation Use (SIUR) water right registration program for commercial cannabis cultivation. PWA recommends that you maintain your SIUR as necessary through the renewal process and the submittal of annual reports and fees:

- Small Irrigation Use Registration (SIUR).
https://www.waterboards.ca.gov/water_issues/programs/cannabis/cannabis_water_rights.shtml
There is an online application portal for this program located at:
https://public2.waterboards.ca.gov/cgo

Submit annual water diversion and use volumes to the NCRWQCB by March 31st for the preceding calendar year, and to the State Water Resources Control Board, Division of Water Rights (SWRCB, DWR) for supplemental reporting required for the Annual Statement of Diversion and Use (ISDU) by June 30th of each year.

(2) If you are directly diverting water from a jurisdictional spring or stream, pumping water from a well, or capturing surface water in an on-stream pond, you will need to obtain a consultation with California Department of Fish and Wildlife (CDFW) staff to determine if you are required to file a CDFW Lake and Streambed Alteration Agreement (LSAA). The agreement will be needed to cover the two jurisdictional spring diversions, the on-stream pond, the unpermitted well and stream crossings.

- Lake and Streambed Alteration Agreement (LSAA).https://www.wildlife.ca.gov/Conservation/LSA

(3) Work with the Humboldt County Division of Environmental Health and Bushnell Enterprises & Well to retroactively permit and register the existing well for irrigation use.

As opposed to employing one or more surface water diversions, irrigation waters could be secured by developing rainwater capture systems or drilling a well.

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.

Meets condition? No
Observations/Comments: Tanks are located on stable slopes away from any streams making it unlikely that water storage structure failures will result in delivery to the stream network. The on-stream pond, constructed in 2015, is fed by two springs/near origin Class III streams. The pond spillway has an 18-inch diameter plastic culvert with a ½ round downspout and the slope adjacent to the spillway culvert is failing in at least three (3) locations. The pond is not in use and was dry at the time of the site inspection.
Photos: Photo 5; MP #3
Corrective or remedial actions needed: Work with a qualified professional and the Humboldt County Building and Planning Department to evaluate the pond stability and take the appropriate steps (such as obtaining a grading permit, filing a LSA, etc.) to

repair and retroactively permit the existing on-stream pond. Otherwise, decommission the pond to prevent future instability or pond failure. If large water bladders are to be used, PWA recommends they be surrounded by engineered containment berms capable of containing the stored water in the event of a bladder failure. Preferably, PWA recommends the use of water bladders be discontinued and they be replaced by rigid water tanks or an off-stream, rainwater fed pond.

Standard Condition #5 - General comments and recommendations: PWA highly recommends, and state agencies may require, that you install flow meters on your water tanks and/or on your diversion lines, to accurately document your diversion volumes and rates. You will need to document the amount of water you are diverting, storing and using through time. PWA has created a simple log sheet to help you monitor your water usage.

4.6 Standard Condition #6. Irrigation Runoff

a) *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.*

Meets condition? Yes
Observations/Comments: No irrigation-related runoff was observed and any runoff that theoretically might flow from the cultivation areas would infiltrate into the surrounding soils and be utilized by the vegetative buffer between the cultivation area and the stream network. Irrigation is limited to controlled hand watering making overwatering and subsequent runoff unlikely.
Photos: None
Corrective or remedial actions needed: None

Standard Condition #6 - General comments and recommendations: According to the Order, irrigation and fertilization shall occur at agronomic rates and chemicals shall be applied according to the label instructions and specifications. Agronomic rates are those rates of application of water, fertilizers and other amendments that are sufficient for utilization by the crop being grown, but not at a rate that would result in surface runoff or infiltration below the root zone of the crop being grown.

In the event that irrigation runoff occurs or could occur, you shall ensure that contaminated runoff does not enter nearby watercourses. This can be accomplished by constructing or designing containment measures, including sediment basins, berms, infiltration ditches and/or other Best Management Practices (BMPs) such as applying straw waddles or hay bales, as needed, to contain and control surface runoff (see Appendix A).

4.7 Standard Condition #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.*

Meets condition? Yes

Observations/Comments: All fertilizers, soil amendments, or any plant-related chemicals that are not directly being used within the planting beds or greenhouses are being stored in shipping containers.

Photos: None

Corrective or remedial actions needed: When not being used on the planting beds or in greenhouses, all fertilizers, soil amendments, potting soils and compost shall continue to be stored within a shipping container, watertight shed or fully under cover in a stable location with no chance of delivery to surface waters. Fertilizers, potting soils, compost, and other soils and soil amendments should not be stored with petroleum products as they are considered incompatible materials and could potentially react (see general comments in 4.9 for more information).

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

Meets condition? Unknown

Observations/Comments: Based on verbal communication with the cultivator, the recommended application rates are being followed.

Photos: None

Corrective or remedial actions needed: To verify compliance with this condition, you are required by the Order to keep detailed records of the timing and volume of any fertilizers and/or other soil amendments you use in your operations. They can be recorded on log sheets such as those provided in Appendix E or by using some other record keeping method. Observe and monitor soil moisture so watering, fertilizer and chemical applications are made only when necessary and overwatering and excess infiltration is avoided. Also see general comments and recommendations below.

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

Meets condition? Yes

Observations/Comments: Cultivation areas have wide vegetative buffers and therefore do not present a significant threat to surface water quality.

Photos: None

Corrective or remedial actions needed: To prevent nutrient runoff and leaching in cultivation areas, either: 1) plant dense cover crops in spent pots, holes and beds to

enrich soil and lock up nutrients; 2) fully tarp exposed soils and growing mediums in beds, pots and piles; or 3) move spent soils and amendments inside or undercover to temporarily store them during the wet season (November 1st – May 15th). If dense cover crops cannot be kept alive, all planted areas should be tarped to protect them from rainfall, snowmelt and subsequent infiltration and leaching of nutrients. Winterize all cultivation areas by placing straw waddles on the downslope perimeter and/or by mulching/seeding any bare surface area on cultivation sites.

4.8 Standard Condition #8. Pesticides/Herbicides

a) *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.*

Meets condition? Yes

Observations/Comments: When not in use, pesticides and herbicides are stored inside a shipping container. Based on verbal communication with the cultivator, only organic pesticides and herbicides are used, as needed, and the recommended application rates are being followed.

Photos: None

Corrective or remedial actions needed: None

Standard Condition #8 - General comments and recommendations: All pesticides, herbicides and related materials (e.g., fungicides) must be used and applied consistent with product labeling. When present, these chemicals should continue to be stored within enclosed buildings in such a way they cannot enter or be released into surface or ground waters. Pesticides and herbicides should not be stored with petroleum products as they are considered incompatible materials and could potentially react (see general comments in 4.9 for more information).

For the health of the environment and your workers, you are encouraged to utilize organic or biologic controls, rather than highly toxic petro-chemicals, to prevent pest and mildew problems. Several safe alternatives are available.

To confirm compliance with the Order, you are required to keep records (logs) of the type, timing and volume of pesticides and herbicides used in your operations. This can be done using a simple log form, such as the one included in Appendix F1. Additionally, for any pesticide use you must comply with any Pesticide Registration Requirements. For more

information see Appendix F2 in this report or Appendix E2 included in the NCRWQCB Order, or on their web site at:
http://www.waterboards.ca.gov/northcoast/board_decisions/adopted_orders/pdf/2015/150728_Appendix_E2_DPR_MJ%20Pesticide%20Handout.pdf

4.9 Standard Condition #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.*

Meets condition? No

Observations/Comments: PWA observed eight (8) diesel storage tanks and several small gas cans on the Project Site. Only four (4) diesel tanks were reported to be in use, including: two 1,000 gallon tanks and one 500 gallon tank, all with secondary containment but lacking cover, and one 500 gallon tank located on a slope, against a tree, and lacking containment and cover. There were also more than ten (10) generators on the Project Site. Only one small generator was reported to be in use that is stored on the ground with small gas cans lacking proper storage. Other small generators are stored in a shipping container with secondary containment.

Photos: Photos 6 – 9; MP #4

Corrective or remedial actions needed: 1) Place all small fuel cans, generators, diesel tanks, gasoline powered garden equipment and any other items containing petroleum products in adequate secondary containment basins and store in a safe, secure location (e.g. away from slopes) out of the elements. 2) Although not required by the Order, PWA recommends placing a sign on the four (4) empty diesel storage tanks and nine (9) generators that are not in use, and any other tank or generator not in use, that reads "Empty, not in use" and the current date. 3) All petroleum products and other liquid chemicals located onsite must be stored under cover, off the ground, and in a secondary containment basin (tote, tub, impermeable basin/floor, etc.) capable of containing the entire stored volume. 4) Because you are storing more than 55 gallons of petroleum products or other liquid chemicals (including but not limited to diesel, biodiesel, gasoline and oils) you are required to develop and submit a Hazardous Material Business Plan (HMBP) and be able to implement a Petroleum Storage Spill Prevention, Control and Countermeasures (SPCC) Plan for your Project Site (see general comments below). 5) Petroleum products and other liquid chemicals, including but not limited to diesel, biodiesel, gasoline, and oils should not be stored with any fertilizers, potting soils, compost, and other soils and soil amendments, as they are considered incompatible materials and could potentially react (see general comments below).

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.*

Meets condition? No

Observations/Comments: See Standard Condition 4.9.a observations/comments, above.

Photos: Photos 6 – 9; MP #4
Corrective or remedial actions needed: See Standard Condition 4.9.a corrective actions, above.

c) *Dischargers shall ensure that diked areas are sufficiently impervious to contain discharged chemicals.*
Meets condition? N/A
Observations/Comments: No diked areas were observed on the Project Site.
Photos: None
Corrective or remedial actions needed: None

d) *Discharger(s) shall implement spill prevention, control, and countermeasures (SPCC) and have appropriate cleanup materials available onsite.*
Meets condition? No
Observations/Comments: No spill prevention cleanup kit was kept onsite to help clean up small spills.
Photos: None
Corrective or remedial actions needed: Obtain one or more spill prevention cleanup kits and keep readily available to clean up small spills. Spill kits should be located where fuel is stored and where refueling occurs. The Order requires that a Petroleum Storage Spill Prevention, Control and Countermeasures (SPCC) Plan be implemented for the site (see the CA-EPA fact sheet: http://www.rivcoeh.org/Portals/0/documents/guidance/hazmat/FactSheetSPCC.pdf).

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.*
Meets condition? N/A
Observations/Comments: No underground storage tanks were observed on the Project Site.
Photos: None
Corrective or remedial actions needed: None

Standard Condition #9 - General comments and recommendations: The Order requires all petroleum products and other liquid chemical storage tanks including generators and gasoline powered garden equipment to be stored in a stable location, under cover and off the ground, and have secondary means of containment (tote, tub, impermeable basin/floor etc.). Although not required by the Order, PWA recommends placing a sign on any tank or generator not in use, with the current date that reads "Empty, not in use".

Due to the amount of petroleum products stored on the Project Site, a Hazardous Material Business Plan (HMBP) will need to be developed. The State of California requires an owner or operator of a facility to complete and submit a Hazardous Material Business Plan (HMBP) if the facility handles a hazardous material or mixture containing a hazardous material that has a quantity at any one time during the reporting year equal to or greater than: 55 gallons (liquids), 500 pounds (solids), or 200 cubic feet for compressed gas (propane) used for the cultivation operations. If at any time during the year your operations

exceed any one of these quantities, you need to prepare and file a HMBP for your operation. Information regarding HMBPs can be found at http://ca-humboldtcounty.civicplus.com/DocumentCenter/Home/View/3224.

Additionally, while it is not explicitly stated in the Order, please note that the Humboldt County Division of Environmental Health (HCDEH) also requires that anyone that has over 55 gallons or more of any petroleum liquid at any time of the year, including fuels and waste oil, develop a HMBP.

Do not store petroleum products and/or chemicals with fertilizers, soil amendments and/or pesticides/herbicides. See guidelines for hazardous material storage in Appendix H.

4.10 Standard Condition #10. Cultivation-Related Wastes

a) *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 groundwater.*

Meets condition? No

Observations/Comments: PWA observed cultivation waste (pots, plastic trellis, tarps etc.) in several locations on the Project Site. There were also large piles of spent soil and plant material near CA #3.

Photos: Photos 10; MP #5

Corrective or remedial actions needed: Maintain good housekeeping by cleaning up cultivation related waste around the property. Tarp or otherwise cover spent soil piles during the wet season to prevent soil from being transported to surface waters or leaching nutrients into the groundwater. We encourage you to chip or shred your plant stalks and compost them after harvest. Other cultivation-related waste can be easily contained by keeping soils and garbage greater than 200 feet from drainage areas and on gentle slopes, tarping or otherwise covering soil piles, and/or by placing straw waddles or other containment structures around the perimeter of spoil piles. Garbage and cultivation-related waste should be removed from the property on a regular basis and disposed of at an appropriate facility.

4.11 Standard Condition #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.*

Meets condition? No

Observations/Comments: There are currently two (2) outhouses in use on the Project Site. The pit associated with the outhouse near CA #3 was exposed (not covered)

outside of the shelter making it accessible to animals. According to the landowner, there is one portable toilet onsite.
Photos: Photo 11 – 12; MP #6
Corrective or remedial actions needed: 1) According to the Order, a permitted and approved Onsite Wastewater Treatment System (OWTS) (septic system) is required. Work with a professional specialist to site, design and install one or more permitted septic systems for the Project Site. The system(s) must be designed to serve the number of residents and workers that will be present on the Project Site when your cultivation-related operations are at their peak. Monitoring, including, but not limited to, soil sampling and groundwater monitoring, may be required to determine a site with suitable conditions. 2) Decommission the two outhouses, and remove and properly dispose of any associated waste. Refer to HCDEH regarding the proper steps or permits to decommission in-use or recently (within one year) used outhouses. 3) Until the new OWTS system(s) are designed, constructed, and permitted, continue to utilize one or more serviced portable toilets (or other county approved system. Keep servicing records for possible inspection.

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.*
Meets condition? No
Observations/Comments: Refuse and garbage on the Project Site is mostly secured in bags and stored in a lidded wooden box and lidded cans. However, PWA observed some trash and garbage bags stored on the ground and not all trash cans had lids. The landowner intends to use a shipping container to store and protect recycling and trash in the future.
Photos: None
Corrective or remedial actions needed: Collect all improperly stored garbage and store in lidded cans or containers in a location and manner that prevents any contact with surface or groundwater. Additionally, it is important to utilize storage facilities which prevent animals from accessing or disturbing garbage or refuse.

c) *Garbage and refuse shall be disposed of at an appropriate waste disposal location.*
Meets condition? Yes
Observations/Comments: All refuse and garbage is periodically hauled offsite to be disposed of at an appropriate waste disposal facility.
Photos: None
Corrective or remedial actions needed: None

4.12 Standard Condition #12. Remediation/Cleanup/Restoration

a) *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 A accompanying the NCRWQCB Order, (and Appendix A in your WRPP), *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.*

These protection and mitigation measures have been developed to prevent or reduce the environmental impacts and represent minimum, enforceable standards by which cleanup activities shall be conducted under this Order.

Meets condition? Yes
Observations/Comments: No major site remediation or clean-up work that otherwise threatened water quality was identified at the Project Site. All corrective and remedial actions needed to satisfy the other 11 Standard Conditions have been outlined above.
Photos: None
Corrective or remedial actions needed: None

5.0 PRIORITIZED CORRECTIVE ACTIONS AND SCHEDULE TO REACH FULL COMPLIANCE

The following check list should be followed to become fully compliant with the Order. Please see the detailed comments and recommendations above for a more complete description of the problems and the needed corrective actions and monitoring requirements.

Table 1. Features Needing Improvement or Action Items (Prioritized implementation schedule for corrective actions)

Standard Condition Requiring Action		Treatment Priority	Schedule	Summary of Corrective Actions/Recommendations (see more detailed listing of corrective actions in Section 4, above)	Map Point and Photo #	Date Completed
4.1 – Site Maintenance, Erosion Control and Drainage Features	1a, b, d, e	High	Dec. 31, 2019	- Install permanent road drainage structures which shape the road surface (such as rolling dips) where feasible to hydrologically disconnect road segments from surface waters and to disperse road surface runoff to prevent road surface erosion. PWA will work with you to select and implement some combination of road drainage features for controlling surface drainage from the road and cultivation sites such that there is little or no significant discharge of runoff to local stream channels. - If certain roads are only used seasonally, install frequent (every 100 feet, or less) waterbars prior to October 15th every year and maintain waterbars as necessary to ensure proper winter drainage and to prevent erosion at their outlets. - If you choose to discontinue the use of Road 9, decommission the road, by ripping (decompacting) the road surface, outsloping or installing cross road drains (including on the approaches to the stream crossings), seeding and mulching and blocking off road entrances. - Under the Order, all legacy roads on the Project Site are required to be inventoried and assessed for erosion sources and threats to water quality. You will need to identify and map all legacy roads (if there are any) and conduct a rapid erosion assessment to identify existing or potential sediment sources or pollution threats, if any, along these routes. - If existing or potential legacy sediment sources that could impact surface waters are identified in the field, they will need to be treated using erosion prevention and erosion control treatments (see Appendix A).	N/A	

Table 1. Features Needing Improvement or Action Items (Prioritized implementation schedule for corrective actions)

Standard Condition Requiring Action		Treatment Priority	Schedule	Summary of Corrective Actions/Recommendations (see more detailed listing of corrective actions in Section 4, above)	Map Point and Photo #	Date Completed
4.2 – Stream Crossing Maintenance	2a, b, d	High	Oct. 15, 2020	- Install armored fills at SC #1 and #2, sized to pass the expected 100-year peak flow and associated debris. Alternatively, you can decommission SC #1 and SC #2 by removing all the fill material, re-establishing the natural grade of each watercourse through the stream crossings and laying back channel embankments to 2:1 slope (50% gradient or less). - Utilize BMP's such as applying straw mulch and seeding all bare soil areas to minimize erosion and incidental sediment delivery. - Obtain all necessary permits prior to commencing work. Permits may include, and may not be limited to: CDFW LSA 1602, SWRCB 401 Certification, and ACOE 404 Permit.	MP #1-2; Photos 1-4	
4.5 – Water Use	5a, c	High	March 1, 2019 (or prior to irrigation activities) and then continuing	- Develop and refine a Water Budget to determine the required volume of water storage you will need to forbear (not divert surface flows) from May 15th through October 31st each year. - Develop and implement a Water Monitoring Plan to document the exact timing and volume of your water diversion, storage and use throughout the year using log sheets provided in Appendix D. - PWA highly recommends, and state agencies may require, that you install flow meters on your water tanks and/or on your diversion lines to document your diversion volumes and rates.	N/A	

Table 1. Features Needing Improvement or Action Items (Prioritized implementation schedule for corrective actions)

Standard Condition Requiring Action		Treatment Priority	Schedule	Summary of Corrective Actions/Recommendations (see more detailed listing of corrective actions in Section 4, above)	Map Point and Photo #	Date Completed
	5b	Moderate	March 1, 2019 (start of irrigation activities) and then continuing	- Begin quantifying use, testing drip rates, using timed and/or volume limited drip emitters, and incorporating water holding amendments and native soil during the initial soil preparation at the start of the season. - Evaluate and employ, as feasible 1) time or volume-limited drip irrigation; 2) irrigation scheduling; 3) the use of cover crops during rotations and winter to protect and increase soil fertility; 4) the use of compost and mulch fertilizer to improve soil structure and increase its water-holding capacity; and 5) capturing and storing rainwater for irrigation. - Other water conservation measures should continue to be investigated and employed in order to most effectively maximize water use efficiency and minimize or eliminate summer diversions, including additional water storage (e.g., rigid tanks) and rainwater harvesting that will allow you to forbear in the dry summer months.	N/A	
	5d	High	March 1, 2019 (or prior to irrigation activities) and then continuing	- Start measuring and recording your average water usage on a per plant basis, based on type and size of plant pot, full term versus short season (light deprivation) plant, and type of irrigation, in order to develop and refine a Water Budget for your operation. - Observe and monitor soil moisture so watering, fertilizer and chemical applications are made only when necessary and overwatering and excess infiltration is avoided. This will allow you to refine the Water Budget for your operation and verify agronomic rates of watering.	N/A	

Table 1. Features Needing Improvement or Action Items (Prioritized implementation schedule for corrective actions)

Standard Condition Requiring Action		Treatment Priority	Schedule	Summary of Corrective Actions/Recommendations (see more detailed listing of corrective actions in Section 4, above)	Map Point and Photo #	Date Completed
	5e	High	Dec. 31, 2018 File Supplemental Statement annually by June 30.	- Water diversion and water storage requires valid water rights documentation. If you continue to divert surface water in the future from the PODs and the well for your domestic needs, and Commercial Cannabis Irrigation, you need to maintain and renew your water rights, as needed, and be able to provide documentation of your legal water rights - File a Lake and Streambed Alteration Agreement (LSA) with CDFW for the two spring diversions. - Work with the Humboldt County Division of Environmental Health and Bushnell Enterprises & Well to retroactively permit and register the existing well for irrigation use.	N/A	
	5f	High	Dec. 31, 2018	- Work with a qualified professional and the Humboldt County Building and Planning Department to evaluate the pond stability and take the appropriate steps (such as obtaining a grading permit, filing a LSA, etc.) to repair and retroactively permit the existing on-stream pond. Otherwise, decommission the pond to prevent future instability or pond failure. - If large water bladders are to be temporarily used, PWA recommends they be surrounded by engineered containment berms capable of containing the stored water in the event of a bladder failure.	MP #3; Photo 5	
4.7 - Fertilizer and Amendment Use	7b	High	March 1, 2019 and then continuing	- To verify compliance with the Order, you are required to keep detailed records of the timing and volume of any fertilizers and/or other soil amendments you use in your operations. Use log sheets found in Appendix E.	N/A	

Table 1. Features Needing Improvement or Action Items (Prioritized implementation schedule for corrective actions)

Standard Condition Requiring Action		Treatment Priority	Schedule	Summary of Corrective Actions/Recommendations (see more detailed listing of corrective actions in Section 4, above)	Map Point and Photo #	Date Completed
4.8 – Pesticides and Herbicides	8a	High	March 1, 2019 and then continuing	- To confirm compliance with the Order, you are required to keep records (logs) of the type, timing and volume of pesticides and herbicides used in your operations. This can be done using a simple log form, such as the one included in Appendix F1. Additionally, for any pesticide use you must comply with any Pesticide Registration Requirements. For more information see Appendix F2 in this report or Appendix E2 included in the NCRWQCB Order, or on their web site at: http://www.waterboards.ca.gov/northcoast/board_decisions/adopted_orders/pdf/2015/150728_Appendix_E2_DPR_MJ%20Pesticide%20Handout.pdf	N/A	
4.9 – Petroleum Products and Other Chemicals	9a, b, d	Moderate	Dec. 31, 2018	- Place all small fuel cans, generators, diesel tanks, gasoline powered garden equipment and any other items containing petroleum products in adequate secondary containment basins and store in a safe, secure location (e.g. away from slopes) out of the elements. - Although not required by the Order, PWA recommends placing a sign on the four (4) empty diesel storage tanks and nine (9) generators that are not in use, and any other tank or generator not in use, that reads "Empty, not in use" and the current date. - All petroleum products and other liquid chemicals located onsite must be stored under cover, off the ground, and in a secondary containment basin (tote, tub, impermeable basin/floor, etc.) capable of containing the entire stored volume. - Because you are storing more than 55 gallons of petroleum products or other liquid chemicals (including but not limited to diesel, biodiesel, gasoline and oils) you are required to develop and submit a Hazardous Material Business Plan (HMBP - Petroleum products and other liquid chemicals, including but not limited to diesel, biodiesel, gasoline, and oils should not be stored with any fertilizers, potting soils, compost, and other soils and soil amendments, as they are considered	MP #4, Photos 6-9	

Table 1. Features Needing Improvement or Action Items (Prioritized implementation schedule for corrective actions)

Standard Condition Requiring Action		Treatment Priority	Schedule	Summary of Corrective Actions/Recommendations (see more detailed listing of corrective actions in Section 4, above)	Map Point and Photo #	Date Completed
				incompatible materials and could potentially react. - Obtain one or more a spill prevention cleanup kits onsite and easily assessable at all times to help clean up small spills. Spill kits should be located where fuel is stored and where refueling occurs.).		
4.10 – Cultivation Related Waste	10a	High	Dec. 31, 2018	- Maintain good housekeeping by cleaning up cultivation related wastes around the property. Tarp or otherwise cover spent soil piles during the wet season to prevent soil from being transported to surface waters or leaching nutrients into the groundwater. - We encourage you to chip or shred your plant stalks and compost them after harvest. - Other cultivation-related waste can be easily contained by keeping soils and garbage greater than 200 feet from drainage areas and on gentle slopes, tarping or otherwise covering soil piles, and/or by placing straw waddles or other containment structures around the perimeter of spoil piles. - Cultivation-related waste should be removed from the property on a regular basis and disposed of at an appropriate facility.	MP #5, Photo 10	
4.11 – Refuse and Human Waste	11a, b	High	OWTS by Dec. 31, 2020 Trash on or before Nov. 15, 2018 and continuing	- According to the Order, a permitted and approved Onsite Wastewater Treatment System (OWTS) (septic system) is required. - Work with a professional specialist to site, design and install one or more permitted septic systems for the Project Site. - The system(s) must be designed to serve the number of residents and workers that will be present on the Project Site when your cultivation-related operations are at their peak. - Decommission the two outhouses, and remove and properly dispose of any associated waste. Refer to HCDEH regarding the proper steps or permits to decommission in-use or recently (within one year) used outhouses. - Continue to utilize one or more serviced portable toilets (or other county approved system) until the new OWTSs can be designed, constructed and permitted. Keep servicing records	MP #6, Photos 11-12	

Table 1. Features Needing Improvement or Action Items (Prioritized implementation schedule for corrective actions)

Standard Condition Requiring Action		Treatment Priority	Schedule	Summary of Corrective Actions/Recommendations (see more detailed listing of corrective actions in Section 4, above)	Map Point and Photo #	Date Completed
				for possible inspection. - Collect all improperly stored garbage and store in lidded cans or containers in a location and manner that prevents any contact with surface or groundwater. - It is important to utilize storage facilities which prevent animals from accessing or disturbing garbage or refuse, and rainfall from leaching wastes onto and into the ground. - Continue to dispose of existing garbage and refuse in a timely manner at an approved waste disposal facility. - Ensure that all cultivation waste is removed and properly stored or disposed of (See section 4.10)		

6.0 MONITORING AND INSPECTION PLAN

Under the Order, sites are required to be monitored and inspected periodically to ensure conformance with the 12 Standard Conditions. In most cases, inspections and records of inspections identify conditions that have been corrected and are now in compliance; conditions that remain in compliance; and conditions that have changed and may no longer be in compliance with the Order. An inspection and monitoring plan is used to document these conditions, identify problems and make corrections using best management practices (BMPs) to protect water quality (Appendix A).

Monitoring Plan – Please refer to Appendix B and Figure 2 to review the monitoring plan and specific monitoring points for which you are responsible.

Monitoring guidelines and reporting standards have been created by the NCRWQCB as part of the Order. Monitoring of the Project Site includes visual inspection and photographic documentation of each feature of interest listed on the Project Site map, with new photographic documentation recorded with any notable changes to the feature of interest.

Site inspection schedule - According to the NCRWQCB, periodic inspections should include visual inspection of the site, including any management measures/practices, to ensure they are being implemented correctly and are functioning as expected. Inspections include photographic documentation of any controllable sediment discharge sites, as identified on the site map, and a visual inspection of those locations on the site where pollutants or wastes, if uncontained, could be transported into receiving waters, and those locations where runoff from roads or developed areas drains into or towards surface water.

At a minimum, sites shall be inspected at the following times to ensure timely identification of changed site conditions and to determine whether implementation of additional management measures is necessary to prevent or minimize discharges of waste or pollutants to surface water:

1) Before and after any significant alteration or upgrade to a given stream crossing, road segment, or other controllable sediment discharge site. Inspection should include photographic documentation, with photo records to be kept onsite.
2) Prior to October 15th to evaluate site preparedness for storm events and stormwater runoff.
3) Following the accumulation of 3 inches cumulative precipitation (starting September 1st) or by December 15th, whichever is sooner.
4) Following any rainfall event with an intensity of 3 inches precipitation in 24 hours. Precipitation data can be obtained from the National Weather Service by entering the site zip code at http://www.srh.noaa.gov/forecast; Pick the nearest or most relevant zip code and then select the 3 day history that will also show precipitation totals.

Inspection and Monitoring Checklist – Appendix B contains a checklist data form that will be used by the landowner and/or operator to: 1) document inspection dates, 2) document visual and photographic inspection results, 3) describe remediation and management measures that are being applied, 4) identify new problems and their treatments, and 5) document the progress and effectiveness of implementing remedial and corrective measures that are needed to meet the 12 Standard Conditions, as outlined in this WRPP. Appendix C contains photo documentation of your

monitoring points and will need to be updated as corrective treatments are implemented and treatments are monitored and evaluated over time.

Annual Reporting – An Annual Report is to be submitted directly to the NCRWQCB or to PWA (through our 3rd Party Program). The information in the annual reporting form must be submitted by March 31st of each year. The reported information is to be reflective of current site conditions, and includes monitoring data and tasks accomplished to protect water quality. Among other things, the report includes such items as the reporting of monthly monitoring data collected during the year (e.g., chemical use, water diversions, water storage, water use, etc.), management measures (BMPs) applied during the year and their effectiveness, and tasks accomplished during the year towards meeting each of the 12 Standard Conditions identified as deficient in this WRPP.

7.0 WATER USE

Requirements - According to the Order, a Water Use Plan (WUP) shall record water source, relevant water right documentation, and amount used monthly. All water sources shall be recorded, including alternative sources such as rain catchment and groundwater, and/or hauled water. Other elements of the WUP will include:

- Developing a Water Budget for determining the timing and volume of actual water use on the site. Water related data will be summarized monthly for the preceding month.
- Designing and implementing water conservation measures to reduce water diversion and water use.
- Calculating water storage requirements needed to support cultivation activities during the dry season, and implementing those required storage measures.

The Water Use Plan must also describe water conservation measures and document your approach to ensure that the quantity and timing of water use is not impacting water quality objectives and beneficial uses (including cumulative impacts based on other operations using water in the same watershed). Water use will only be presumed to not adversely impact water quality under one of the following scenarios:

- No surface water diversions occur from May 15th to October 31st.
- Water diversions are made pursuant to a local plan that is protective of instream beneficial uses.
- Other options that may affect water quality: (e.g., percent of flow present in stream; minimum allowable riffle depth; streamflow gage at bottom of Class I stream; AB2121 equations; CDFW instream flow recommendations; promulgated flow objective in Basin Plan; etc.).

Site Water Use Plan -The record of activities, accomplishments and water monitoring results for the Water Use Plan for this site will be logged and recorded in data tables and site records (data forms) included in Appendix D of this WRPP. These will be tracked and kept up-to-date by the landowner or cultivator of the site.

Water Storage and Forbearance - The ultimate goal of the applicant is to accumulate enough water storage capacity to forebear the entire period from May 15th to October 31st. This will ensure the timing of water use is not impacting water quality objectives and beneficial uses. Currently, there are a total of 192,100 gallons of water storage for irrigation and domestic uses in 32 rigid tanks and 2 water bladders, and one (1) on-stream pond. Based on a cultivation area of 16,560 ft^2,

there may be enough water storage necessary to forbear (not divert) during the dry season. Therefore, additional water storage will be required, preferably rigid water tanks and one or more off-stream, rainwater-fed pond(s) that are filled during the rainy season and would provide sufficient irrigation water for dry season operations. There are ridge-top settings that may provide stable locations where water tanks or a large capacity pond may be safely placed. As mentioned in Section 4.5, a preliminary water budget will need to be developed and refined to determine the amount of additional water storage required to observe the forbearance period.

Water Conservation - Water conservation measures currently practiced controlled hand watering in all cultivation areas. Starting this year, new water conserving techniques (e.g., time or volume-limited drip irrigation, irrigation scheduling, the use of cover crops during rotations and winter, the use of compost and mulch fertilizer, and capturing and storing rainwater for irrigation) and equipment will be utilized and tested to evaluate effectiveness and efficiency. Water conservation measures will continue to be investigated and employed in order to most effectively maximize water use efficiency.

Water sources and use - Water for the Project Site is supplied from two spring diversions (POD #1 and POD #2) and one unpermitted groundwater well established in 2009-10 by Bushnell Enterprises & Well (Figure 2). POD #1 is located at the spring above a near the origin of a Class III watercourse. POD #2 is located at a spring above Pond #1, an instream pond on a seasonal/near origin Class III watercourse that runs dry at the beginning of summer. The pond is not in use.

At the time of the site inspection, neither PWA nor the operator had data that quantified the overall water use on the property. It is required under the Order that you monitor and record all water data for the Project Site, including diversion, storage and water use through time. Develop a water budget to determine overall water needs for both domestic and irrigation uses throughout the year. The water budget and water monitoring is needed to ensure you limit or eliminate diversion of surface flows during the low flow period from (May 15th through- October 31st each year).

Over the course of the current season, water use will be documented using the log forms attached in Appendix D. As more accurate water data is gathered, refined targets can be made to ensure adequate storage exists to protect downstream water quality and beneficial uses during the driest time of the year. Water rights notifications and registrations will be submitted to the State Water Resource Control Board (Division of Water Rights) and a Lake and Streambed Alteration Agreement (LSAA) sought through the California Department of Fish and Wildlife (CDFW) for the current diversions.

8.0 LIST OF CHEMICALS

The WRPP must contain a list of chemicals being stored onsite, in addition to quantities used and frequency of application. These include fertilizers/soil amendments, pesticides, herbicides, fungicides, petroleum products and other chemicals used in, or associated with, your cultivation activities and related operations.

Because this is the first year of enrollment, information regarding chemical use and storage is deficient or anecdotal. Appendixes E and F1 contain monitoring forms that should be used to list the chemical inventory record over time, as supplies are added to the site and used during the growing season. The landowner or operator will use these forms to track the types, storage

volumes, timing of application, and volume of use of these products throughout the year. The initial chemicals and amendment list that may be used and stored onsite include:

Fertilizers and amendments:

- Nitro Bat Guano- 176 lbs
- Chicken Manure- 625 lbs
- Kelp Meal- 300 lbs
- Oyster Shell- 200 lbs
- Bat Guano- 275 lbs
- Worm castings- 1,200 lbs

Pesticides, Herbicides, and Fungicides:

- Neem
- _____
- _____
- _____

Petroleum and Other Chemicals:

- Gasoline/Diesel

9.0 LANDOWNER/LESSEE CERTIFICATION/SIGNATURES

This Water Resource Protection Plan (WRPP) has been prepared by Pacific Watershed Associates, an approved Third Party Program acting on behalf of the North Coast Regional Water Quality Control Board (NCRWQCB).

"I have read and understand this WRPP, including Section 2.0 – Certifications, Conditions and Limitations. I agree to comply with the requirements of the California Regional Water Quality Control Board North Coast Region 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 in the North Coast Region), including the recommendations and actions listed in this WRPP."

Name of Legally Responsible Person (LRP): Morgan Stoft

Title (owner, lessee, operator, etc.): Owner

Signature: _____ Date: 11-1-18

WRPP prepared by (if different from LRP): **Pacific Watershed Associates, Inc.**

WRPP prepared and finalized on (date): 11/1/18

Signature: _____ Date: 11/1/18