COUNTY OF HUMBOLDT
PLANNING AND BUILDING DEPARTMENT
CURRENT PLANNING DIVISION

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Phone: (707)445-7541 Fax: (707) 268-3792

Hearing Date: October 04, 2018

To: Humboldt County Planning Commission

From: John H. Ford, Director of Planning and Building Department

Subject: **Clear Creek Farms, LLC, Conditional Use Permit**
Application Number 11014
Case Number CUP-16-125
Assessor's Parcel Number (APNs) 105-111-016
1197 Conklin Creek Road, Petrolia Area

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Please contact Tayla Copeland, Planner, at 707-445-7541 or by email at TCopeland@co.humboldt.ca.us if you have any questions about the scheduled public hearing item.

AGENDA ITEM TRANSMITTAL

Hearing Date	Subject	Contact
October 04, 2018	Conditional Use Permit	Tayla Copeland

Project Description: A Conditional Use Permit for 26,067 square feet (SF) of existing outdoor cannabis cultivation and 1,841 SF of mixed light cannabis cultivation located on Assessor's Parcel Number (APN) 105-111-016 which is approximately 5.61 acres in size. There is a proposed accessory propagation area of 2,000 SF with a 2,500 SF processing, nursery, and storage space. Water for domestic use is sourced from an unpermitted well that was constructed in the 1960's and a deeded spring on a parcel on the south side of the Mattole River. This well may be hydrologically connected to the Mattole River, some 150 feet to the south. The Applicant is currently developing appropriative initial statements of water diversion and use and streambed alteration agreements for diversion from the off-parcel spring and the well. As a condition of approval, the applicant agrees to forebear from water diversion in summer months and to abide by any conditions determined under ongoing consultation with the California Department of Fish and Wildlife (CDFW). The applicant proposes to install an additional well at a higher elevation and to construct a 500,000-gallon rain water catchment pond in order to meet the annual irrigation demands of approximately 213,000 gallons (150,000 gallons during the forbearance period). There are 3,000 gallons of hard tank storage onsite and the applicant plans to increase water storage through installation of 5,000 gallons of additional water tanks for domestic and fire safety uses. All product grown on-site will be processed off-site at a licensed facility until the proposed 2,500 SF processing building can be permitted and built. There is one residence on the parcel linked to an onsite wastewater treatment system and the project is approved by the Division of Environmental Health. The parcel is on the grid and uses no generators. The Applicant plans to hire three employees and to provide portable waste disposal systems and hand washing stations for employee use. The updated site plan and Watershed Resource Protection Plan prepared by Pacific Watershed Associates, dated August and July 2018, respectively, demonstrates that all cultivation areas will be 30 feet or greater distance from the property lines and that the existing and proposed project components are outside of any Streamside Management Areas. There is a setback waiver from the neighboring parcel owner and CalFire granted an exception request for buildings that are less than 30 feet from the parcel boundary.

Project Location: The project site is located in Humboldt County in the Petrolia area, on the north side of Conklin Creek Road, approximately 0.8 miles east from the intersection of Mattole Road, on the property known as 1197 Conklin Creek Road known to be in Section 9 in Township 4 South, Range 3 East, Humboldt Base & Meridian.

Present Plan Land Use Designations: Agricultural Grazing (AG), Inland General Plan (GP), Density: 20-160 acres/unit, Slope Stability: Low to Moderate Instability (1/2)

Present Zoning: Unclassified (U), Density: NA.

Application Number: 11014 **Case Number:** CUP-16-125

Assessor Parcel Numbers: 105-111-016

Applicant	Owner	Agent
Clear Creek Farms, LLC Karl Benemann PO Box 1034 Ferndale, CA 95536	Carlos & Marilyn Benemann PO Box 1034 Ferndale, CA 95536	Janssen Malloy c/o Jeffery Slack PO Drawer 1288 Eureka, CA 95502

Environmental Review: The project is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) per Class 1, 15301 (Existing Facilities), Class 3, 15303 (New Construction or Conversion of Small Structures), and Class 4, 15304 (Minor Alterations to Land), of the CEQA Guidelines.

State Appeal Status: Project is NOT appealable to the California Coastal Commission

Major Issues: None

CLEAR CREEK FARMS, LLC
Case Number CUP-16-125
Assessor's Parcel Numbers 105-111-016

Recommended Commission Action

1. Describe the application as part of the Consent Agenda.
2. Survey the audience for any person who would like to discuss the application.
3. If no one requests discussion, make the following motion to approve the application as a part of the consent agenda:

   Find the project exempt from environmental review pursuant to Sections 15301, 15303, and 15304 of the State CEQA Guidelines, make all of the required findings for approval of the Conditional Use Permit based on evidence in the staff report and any public testimony, and adopt the Resolution approving the proposed Clear Creek Farms, LLC project subject to the recommended conditions.

Executive Summary: Clear Creek Farms, LLC, seeks approval of a Conditional Use Permit in compliance with the County Commercial Medical Marijuana Land Use Ordinance (CMMLUO) and the Medical and Adult Use Cannabis Regulation and Safety Act (MAUCRSA) for an existing outdoor commercial medical cannabis cultivation located on Assessor's Parcel Number (APN) 105-111-016, which is approximately 5.61 acres in size. The property is zoned Unclassified (U). The CMMLUO identifies U zoned parcels over 1 acre in size as sites where existing cannabis cultivation activities could be allowed.

The cultivation for which an interim permit has been issued consists of 26,067 SF of outdoor cultivation, including 2,000 SF of a propagation nursery, and 1,841 SF of mixed light cultivation on the parcel (27,908 SF total). Outdoor cultivation consists of 4,067 SF and the remaining 23,841 SF of cultivation takes place in greenhouses. Up to three harvests per year take place in the mixed light greenhouse and the applicant agrees to shield all extraneous light in accordance with the International Dark Sky Association standards as a condition of approval. There are two sheds, a barn, and a residence on the parcel that are not used for cultivation activities. A 512 SF existing building is used for processing and a proposed 2,500 SF building is planned to be used for processing, the accessory nursery, and storage. The parcel is on the grid and uses no generators. The applicant uses timed drip irrigation systems for all cultivation areas. Per the applicant, three employees are planned to commute daily to and from the site during peak periods of cultivation. Processing will occur offsite. The residence is served by an onsite wastewater disposal system and the project has been reviewed and approved by the Division of Environmental Health.

Irrigation water is sourced from an unpermitted well that was constructed in the 1960's and a deeded spring on another parcel on the south side of the Mattole River, approximately 1,100 feet from the parcel. This well may be hydrologically connected to the Mattole River, some 150 feet to the south. The Applicant is working with Pacific Watershed Associates, Inc. (PWA), as indicated by a letter dated June 9, 2017, for the development of appropriative initial statements of water diversion and use and streambed alteration agreements for diversion from the off-parcel spring and the potentially jurisdictional well. As a condition of approval, the applicant agrees to forebear water diversion in summer months (May 15 to October 31) and abide by any conditions determined under the ongoing consultation with the California Department of Fish and Wildlife (CDFW) regarding a submitted Notification of Lake or Streambed Alteration (LSA#1600-2018-0350). CDFW recommends conditional approval of the project in a letter dated July 26, 2018 and their recommendations have been made conditions of approval. The applicant has 1,500 gallons of hard tank storage and plans to increase water storage through installation of domestic and fire safety water tanks totaling 5,000 gallons and to install a 500,000 gallon rain water catchment pond to meet the annual irrigation demands of approximately 213,000 gallons (150,000 gallons during the forbearance period). The applicant also proposes to install an additional well in the north of the parcel.

The applicant has filed an intent to discharge with the North Coast Regional Water Quality Control Board (NCRWQCB) Cannabis Waste Discharge Regulatory Program as a Tier 2 discharger (WDID# 1B16290CHUM). A Watershed Resource Protection Plan (WRPP) was prepared by PWA in July, 2018 that describes the standard conditions as they related to the NCRWQCB discharger program and a timeline for the applicant to come into full compliance. These WRPP recommendations, including the

development of a water budget, procurement of water rights, and monitoring of all water uses at their sources, have been made a condition of approval. According to the WRPP, Initial Statements of Diversion and Use were filed for both the well and the spring in 2017.

Owing to the close proximity of two cultivation areas and an appurtenant nursery shed within 30 feet of the eastern parcel boundary (APN 105-111-018), the originally transmitted Site Plan was updated to reflect rearrangement of the cultivation areas and to accurately reflect structures that are and are not appurtenant to cultivation activities. A request for an exception from Section 3115-2 of the Humboldt County Fire Safe Regulation which requires a 30 foot Fire Safe boundary was accepted by a letter from CalFire on June 19, 2018 based on the applicant producing the same practical effect of defensible space (30 foot clearing of vegetation around structures, fire resistant building materials, clearing ingress/egress routes). These mitigation measures have been made conditions of approval.

The Division of Environmental Health recommends approval of the project. The Department of Public Works requested a Road Evaluation Report for Conklin Creek Road and the Applicant provided one to the County indicating that the road is developed to a Category 4 road standard. CalFire provided the standard referral comments regarding Fire Safe, Resource Management, and Cannabis cultivation standards. The Petrolia Fire Protection District recommended approval and requested the Applicant submit evidence of access to the parcel for fire and emergency vehicles and the presence of one storage tank plumbed for fire truck access; this has been made a condition of approval.

The Bear River Band of the Rohnerville Rancheria requested a Cultural Resource Study be prepared for the parcel and inclusion of the standard inadvertent archaeological discovery language be included as a condition of project approval. William Rich and Associates prepared a Cultural Resource Investigation report in December of 2017 detailing field investigations of the entire area proposed for cultivation. No artifacts, features, site, buildings, structures, or elements of a historical landscape were identified during the field survey.

Environmental review for this Project was conducted and based on the results of that analysis, staff believes the existing cultivation aspects of the Project can be considered as "Existing Facilities" as defined by Section 15301 of the California Environmental Quality Act (CEQA) Guidelines for the existing cultivation activities that are occurring at the time the exemption is granted; the placement and operation of new hard tanks or a pond for additional water storage can be considered "Minor Alteration to Land" as defined by Section 15304 of the CEQA Guidelines, and improvement and relocation of greenhouses, as well as construction of a 2,500 SF appurtenant processing and nursery building, can be considered "New Construction or Conversion of Small Structures" as defined by Section 15303 of the CEQA Guidelines.

Based on a review of Planning Division reference sources and comments from all involved referral agencies, planning staff believes that the applicant has submitted evidence in support of making all of the required findings for approving the special permit.

ALTERNATIVES: The Planning Commission could elect not to approve the project, or to require the applicant to submit further evidence, or modify the project. If modifications may cause potentially significant impacts, additional CEQA analysis and findings may be required. These alternatives could be implemented if the Commission is unable to make all of the required findings. Planning Division staff has stated that the required findings in support of the proposal have been made. Consequently, Planning staff does not recommend further consideration of either alternative.

The Commission could also decide if the project may have environmental impacts that would require further environmental review pursuant to CEQA. Staff did not identify any potential impacts. As Lead Agency, the Department has determined that the Project is Categorically Exempt under the three Exemption Classes stated above. However, the Commission may reach a different conclusion. In that case, the Commission should continue the item to a future date at least two months later to give staff the time to complete further environmental review.

RESOLUTION OF THE PLANNING COMMISSION
OF THE COUNTY OF HUMBOLDT
Resolution Number 18-

Case Number CUP-16-125
Assessor Parcel Numbers: 105-111-016

Makes the required findings for certifying compliance with the California Environmental Quality Act and conditionally approves the Sarah Clarke Special Permit request.

WHEREAS, Clear Creek Farms, LLC, submitted an application and evidence in support of approving a Conditional Use Permit to continue 26,067 square feet (SF) of existing outdoor and 1,841 SF of mixed light cannabis cultivation located on APN 105-111-016, which consists of one general cultivation area.

WHEREAS, the County Planning Division has reviewed the submitted application and evidence and has referred the application and evidence to involved reviewing agencies for site inspections, comments and recommendations; and

WHEREAS, the project is categorically exempt from environmental review pursuant to Class 1, 15301 (Existing Facilities), Class 3, 15303 (New Construction or Conversion of Small Structures), and Class 4, 15304 (Minor Alterations to Land), of the California Environmental Quality Act (CEQA) Guidelines; and

WHEREAS, Attachment 2 in the Planning Division staff report includes evidence in support of making all of the required findings for approving the proposed Special Permit (Case Number CUP-16-125); and

WHEREAS, a public hearing was held on the matter before the Humboldt County Planning Commission on October 04, 2018.

NOW, THEREFORE, be it resolved, determined, and ordered by the Humboldt County Planning Commission that:

1. The project is categorically exempt from environmental review pursuant to Class 1, Section 15301 (Existing Facilities), Class 3, Section 15303 (New Construction or Conversion of Small Structures), and Class 4, Section 15304 (Minor Alterations to Land), of the California Environmental Quality Act (CEQA) Guidelines; and

2. The findings in Attachment 2 of the Planning Commission staff report support approval of Case Number CUP-16-125 based on the submitted substantial evidence; and

3. Conditional Use Permit CUP-16-125 is approved as recommended and conditioned in Attachment 1 for Case Number CUP-16-125.

Adopted after review and consideration of all the evidence on October 04, 2018.

The motion was made by Commissioner ____ and seconded by Commissioner ___.

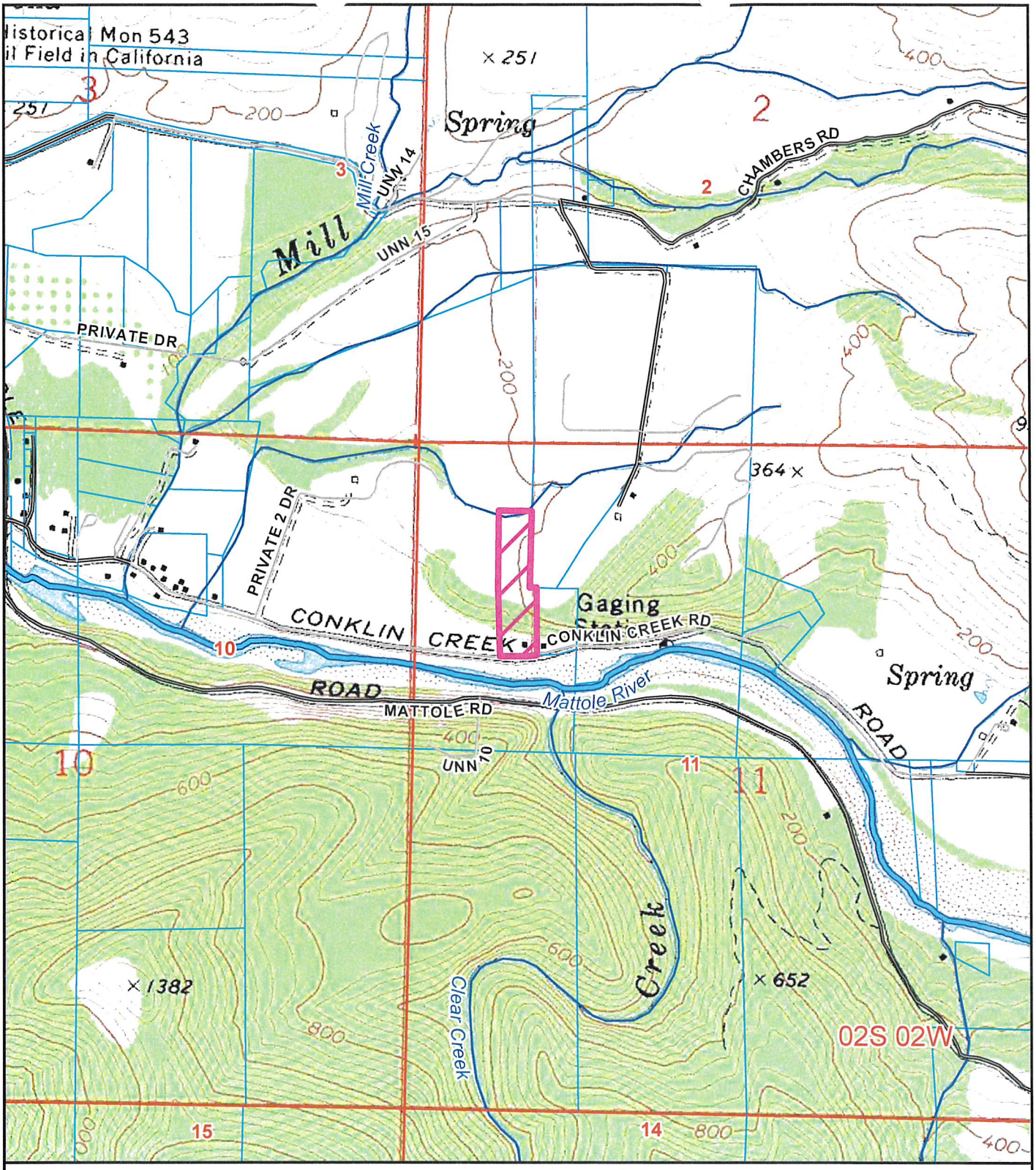
AYES: Commissioners:
NOES: Commissioners:
ABSTAIN: Commissioners:
ABSENT: Commissioners:
DECISION: Motion carries

_____
Robert Morris, Chair

I, John Ford, Secretary to the Planning Commission of the County of Humboldt, do hereby certify the foregoing to be a true and correct record of the action taken on the above entitled matter by said Commission at a meeting held on the date noted above.

_____

John Ford, Director
Planning and Building Department



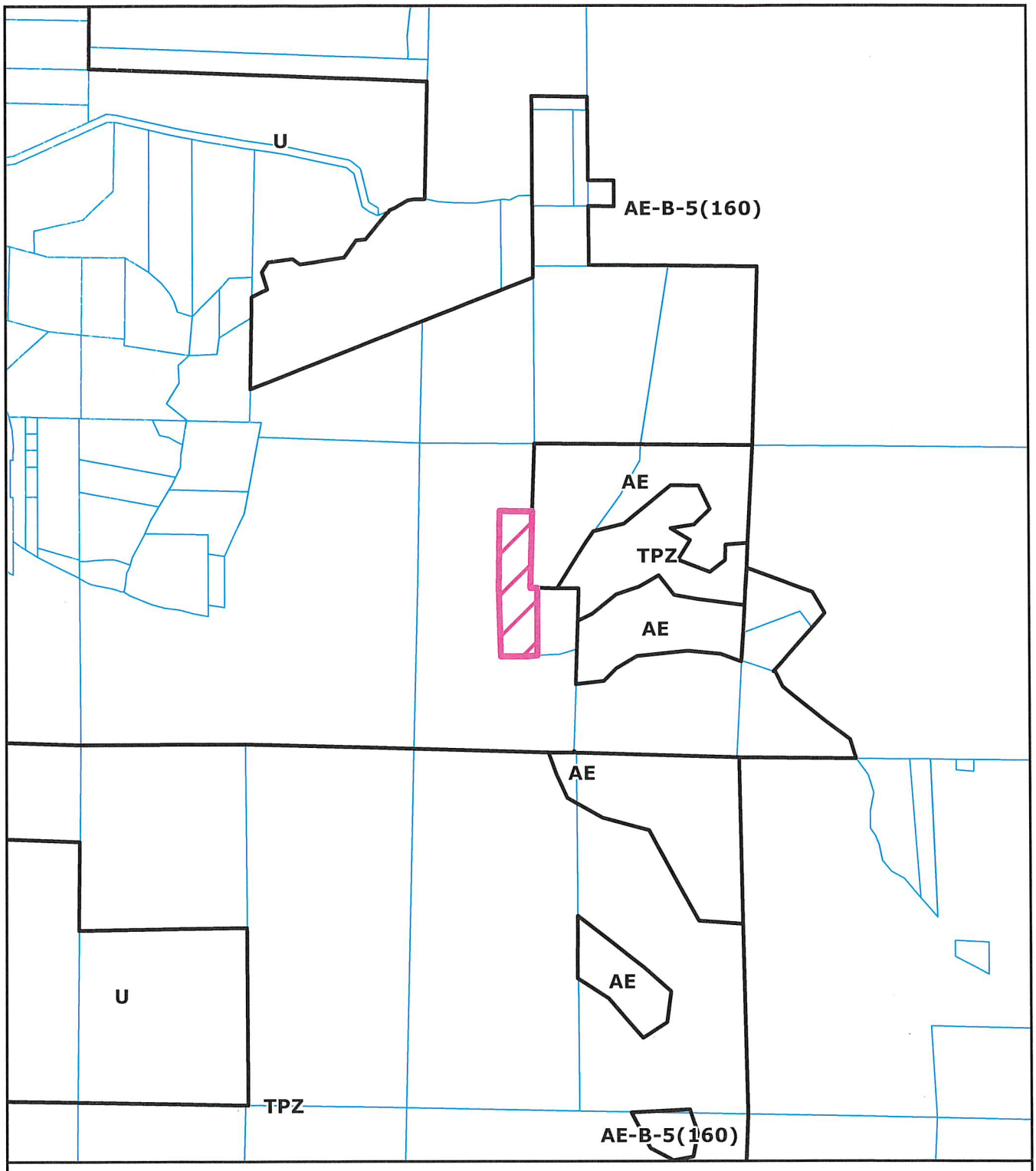
TOPO MAP
PROPOSED CLEAR CREEK FARMS, LLC
PETROLIA AREA
CUP-16-125
APN: 105-111-016
T02S R02W S11 HB&M (PETROLIA)

Project Area =

N

This map is intended for display purposes and should not be used for precise measurement or navigation. Data has not been completely checked for accuracy.

0 1,000 2,000 Feet



ZONING MAP
PROPOSED CLEAR CREEK FARMS, LLC
PETROLIA AREA
CUP-16-125
APN: 105-111-016
T02S R02W S11 HB&M (PETROLIA)

Project Area =

N

This map is intended for display purposes and should not be used for precise measurement or navigation. Data has not been completely checked for accuracy.

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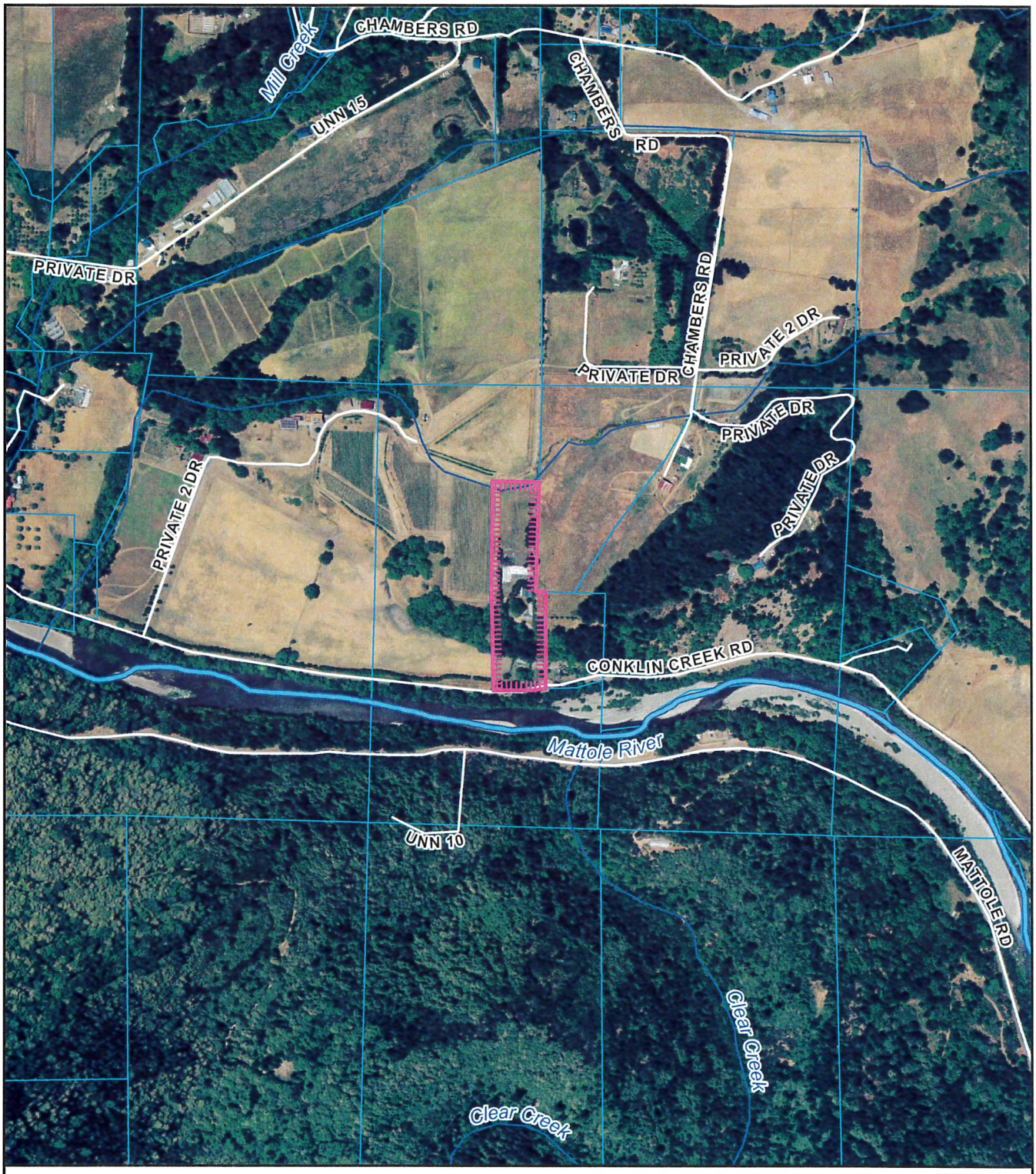


AERIAL MAP
PROPOSED CLEAR CREEK FARMS, LLC
PETROLIA AREA
CUP-16-125
APN: 105-111-016
T02S R02W S11 HB&M (PETROLIA)

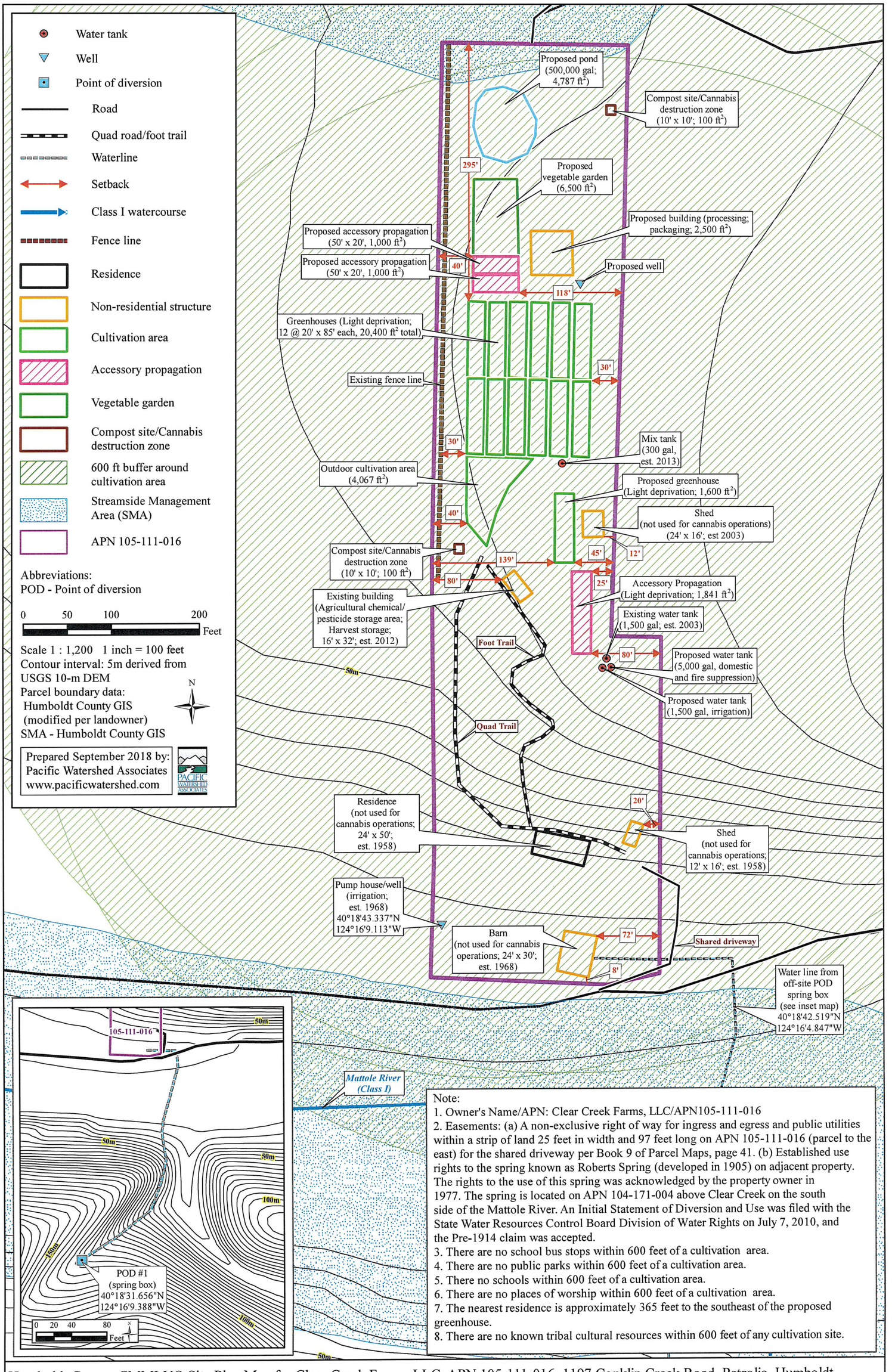
Project Area =

N

This map is intended for display purposes and should not be used for precise measurement or navigation. Data has not been completely checked for accuracy.

0 950 1,900 Feet


300,000 gallon rain catchment pond (PS)
305'
35'
60'
Vegetable garden (10,700 ft²)
CA #3 (4,700 ft²)
30'
33'
CA #2 (4,000 ft²)
CA #1 (full term; 8,400ft²)
16'
30'
CA #4 (1,900 ft²)
130'
Shed/Storage/Nursery (700 ft²)
43'
Processing building (16' x 32'; est. 2012)
CA #5 (mixed light; 2000 ft²) 31,000
Water tank (1,500 gal; est. 2003)
60'
Foot trail
GH #1 (90' x 20'; est. 2005)
490'
Quad road
Shed (no cultivation use; 12' x 16'; est. 1958)
Residence (no cultivation use; 24' x 50'; est. (1958)
Well/Pump house (irrigation; est.1968)
Driveway
Conklin Creek Road
Barn (no cultivation use; 24' x 30'; est. 1968)
Water line to off-site POD spring box (see inset map)
RECEIVED
JUN 15 2017
Humboldt County Building Division



Note:
1. Owner's Name/APN: Clear Creek Farms, LLC/APN105-111-016
2. Easements: (a) A non-exclusive right of way for ingress and egress and public utilities within a strip of land 25 feet in width and 97 feet long on APN 105-111-016 (parcel to the east) for the shared driveway per Book 9 of Parcel Maps, page 41. (b) Established use rights to the spring known as Roberts Spring (developed in 1905) on adjacent property. The rights to the use of this spring was acknowledged by the property owner in 1977. The spring is located on APN 104-171-004 above Clear Creek on the south side of the Mattole River. An Initial Statement of Diversion and Use was filed with the State Water Resources Control Board Division of Water Rights on July 7, 2010, and the Pre-1914 claim was accepted.
3. There are no school bus stops within 600 feet of a cultivation area.
4. There are no public parks within 600 feet of a cultivation area.
5. There no schools within 600 feet of a cultivation area.
6. There are no places of worship within 600 feet of a cultivation area.
7. The nearest residence is approximately 365 feet to the southeast of the proposed greenhouse.
8. There are no known tribal cultural resources within 600 feet of any cultivation site.

Humboldt County CMMLUO Site Plan Map for Clear Creek Farms, LLC, APN 105-111-016, 1197 Conklin Creek Road, Petrolia, Humboldt County, California.

P:\GIS\5428 Benemann\5428 Benemann CMMLUO 2018 site map.mxd

ATTACHMENT 1

RECOMMENDED CONDITIONS OF APPROVAL

APPROVAL OF THE SPECIAL PERMIT IS CONDITIONED ON THE FOLLOWING TERMS AND REQUIREMENTS WHICH MUST BE SATISFIED BEFORE THE PROVISIONAL CANNABIS CULTIVATION PERMIT CAN BE FINALIZED.

1. Within 60 days of the effective date of project approval, the applicant shall execute a Compliance Agreement with the Humboldt County Planning Department detailing all necessary permits and infrastructure improvements described under Conditions of Approval #2 –22. The agreement shall provide a timeline for completing all outstanding items. All activities detailed under the agreement must be completed to the satisfaction of the Planning and Building Department before the permit may be finalized and no longer considered provisional.

2. The applicant shall secure permits for all structures related to the cannabis cultivation and other commercial cannabis activity. The plans submitted for building permit approval shall be consistent with the project description and approved project site plan. A letter or similar communication from the Building Division verifying that all structures related to the cannabis cultivation are permitted will satisfy this condition.

3. The approved building plans shall meet all applicable fire codes, including fire suppression infrastructure requirements deemed necessary for the project by the Building Inspection Division. Sign off on the Occupancy Permit by the Building Division shall satisfy this requirement.

4. The applicant shall file an Ag Exempt letter of intent for each structure used for cannabis cultivation activities.

5. The applicant shall secure a grading permit prior to commencing any ground disturbance. The grading permit shall be prepared by a qualified professional engineer. The plan shall identify the cubic yards of all proposed grading and shall incorporate the erosion control measures listed below. The applicant shall be responsible for implementing the erosion control measures.
    a. Minimize soil exposure during the rainy season by proper timing of grading and construction;
    b. Retain natural vegetation where feasible;
    c. Vegetate and mulch denuded areas to protect them from winter rains;
    d. Divert runoff from steep denuded slopes and critical areas with barriers or ditches;
    e. Minimize length and steepness of slopes by benching, terracing, or constructing diversion structures;
    f. Trap sediment-laden runoff in basins to allow soil particles to settle out before flows are released to receiving waters; and
    g. Inspect sites prior to significant rain events to ensure control measures are working properly and correct problems as needed.

6. The applicant shall secure the approval of the Division of Environmental Health and the Regional Water Quality Control Board for any on-site sewage disposal system prior to the issuance of the building permit. A letter from those agencies indicating approval has been issued will satisfy this condition. In the interim, the applicant shall provide portable toilets and hand washing stations to employees. Documentation of provisioning of these services are required by the Division of Environmental Health.

7. The applicant shall improve the existing private driveway apron (encroachment) that connects to Conklin Creek Road to meet the County visibility ordinance and encroachment permit standards. This requires that the driveway apron be paved for a minimum width of 18 feet and for a length of 50 feet. The applicant shall work with the County Department of Public Works to obtain confirmation that the driveway is in conformance with Fire Safe Regulations (County Code Section 3112-12). Once this condition is met the Applicant shall communicate such to the Petrolia Fire Protection District which

requested details on emergency vehicle access in an August 17, 2017 letter. The applicant shall be responsible for implementing any necessary improvements to bring the driveway into compliance. Prior to constructing improvements within the County maintained road right-of-way, the applicant shall apply for and obtain an encroachment permit from the County Department of Public Works. A letter or similar communication from the County Department of Public Works verifying that these requirements have been met will satisfy this condition.

8. The applicant shall install the proposed 5,000 gallon water tank for fire suppression and provide documentation of this effort to the Petrolia Fire Protection District which requested additional information that fire suppression water tanks were plumbed for fire trucks in an August 17, 2017 letter.

9. The applicant shall continue to engage in consultation with CDFW regarding the submitted Notification of Lake or Streambed Alteration (LSA# 1600-2018-0350). This consultation should involve the diversion from the spring across the Mattole River on the neighboring parcel (APN 105-111-001) and the potentially hydrologically connected well near the Mattole River. The applicant shall provide the Planning Commission with a copy of the final LSAA and comply with all applicable terms. The applicant shall agree to forebear from diverting water from either source for cultivation activities during the forbearance period of May 15 to October 31 of 2018, consistent with Section 55.4.11(l). The recommended conditions of project approval in the letter from CDFW dated July 26, 2018 included the following measures which are also made a condition of approval:
    a. The applicant shall not use any synthetic erosion control netting;
    b. The applicant shall not disturb wildlife; and
    c. The applicant shall store all refuse in wildlife proof storage containers.

10. The applicant shall obtain an appropriative water right for the potentially jurisdictional well and the spring across the Mattole River on the neighboring parcel (APN 105-111-001) from the State Water Resources Control Board for water diverted for irrigation uses as diversion for cannabis cultivation has the potential to substantially affect instream flows. The applicant shall agree to forebear from diverting water from either source for cultivation activities during the forbearance period of May 15 to October 31 of 2018, consistent with Section 55.4.11(l).

11. Prior to issuance of any permits, the applicant shall demonstrate that there is sufficient on site water storage to meet the annual demand for cannabis cultivation. This may be accommodated by adding other water storage facilities including construction of the proposed 500,000 gallon pond or by reducing the number of cultivation cycles or area within the operations plan.

12. The applicant shall complete and implement all corrective actions detailed within the WRPP developed for the parcel by Pacific Watershed Associates (PWA) on July 2018, (Exhibit A of Attachment 1), prepared pursuant to Tier 2 enrollment under the North Coast Regional Water Quality Control Board (RWQCB) Cannabis Waste Discharge Regulatory Program, including those measures later determined necessary during annual and periodic site inspections in accordance with the monitoring element. A copy of the reporting form portion of the Mitigation and Reporting Program (MRP) shall be submitted annually to the Planning and Building Department concurrent with the submittal to the RWQCB a letter or similar communication from the RWQCB verifying that all their requirements have been met by the listed dates or the applicant has proven to the satisfaction of RWQCB that the plan to complete the improvements by the listed dates is sufficient, will satisfy this condition. [After July 31, 2019, plans and reporting shall conform to the Cannabis Cultivation Policy and Cannabis General Order adopted October 17, 2017 by the State Water Board.]

13. As the applicant plans to construct a pond on the north of the parcel, the applicant shall submit a report prepared by a qualified biologist, hydrologist, or engineer to the Planning Division. The plan shall include appropriate delineations of appropriate wetland and streamside setbacks (150 ft from perennial streams/wetlands and 50 ft from intermittent streams/wetlands), measured from the outer edge of the riparian vegetation or top of bank, whichever is greater, as defined in BR-S5 of the Humboldt County General Plan.

14. All new structures will be required to meet the required 30 foot Humboldt County Fire Safe setbacks (including proposed water storage tanks) and receive appropriate Building Permits. A request for an exception from Section 3115-2 of the Humboldt County Fire Safe Regulation for structures less than 30 feet from the parcel boundary was accepted by a letter from CalFire on June 19, 2018 based on the applicant producing the same practical effect of defensible space (30 foot clearing of vegetation around structures, fire resistant building materials, clearing ingress/egress routes). Incorporation of these mitigation measures for all existing structures have been made conditions of approval.

15. Prior to issuance of any building or construction permits a revised site plan shall be prepared by the applicant and reviewed and approved by the Planning Division showing:
    a) Adequate off-street parking;
    b) Compliance with emergency vehicle access requirements;
    c) Setbacks of all cultivation areas to property lines;
    d) Revised cultivation areas; and
    e) Revised hard tank or constructed pond water storage.

16. Prior to issuance of any building or construction permits a grading, erosion and sediment control plan shall be prepared by a qualified engineer. The plan shall identify the cubic yards of all grading that has been done and any proposed grading designed for the installation of additional storage tanks or, septic systems, or the planned 500,000 gallon rainwater catchment pond. Dust control practices during construction and grading shall achieve compliance with North Coast Air Quality Management District (NCAQMD) fugitive dust emission standards.

17. As the Applicant is using artificial lighting for mixed light cultivation they shall shield greenhouses so that little to no light escapes. Light shall not escape at a level that is visible from neighboring properties between sunset and sunrise. The light source should comply with the International Dark Sky Association standards for Lighting Zone 0 and Lighting Zone 1, and be designed to regulate light spillage onto neighboring properties resulting from backlight, uplight, or glare (BUG). Should the Humboldt County Planning Division receive complaints that the lighting is out of alignment or not complying with these standards, within ten (10) working days of receiving written notification that a complaint has been filed, the applicant shall submit written verification that the lights' shielding and alignment has been repaired, inspected and corrected as necessary.

18. Noise generated from any backup or emergency generators shall not exceed 50 decibels (dB) at 100 feet from the generator or at the edge of the nearest forest habitat, whichever is closer, as required by Section 314-55.4.11(o) of the Humboldt County Code. Prior to issuance of a building permit or the initiation of cultivation activities, whichever occurs first, the applicant shall provide documentation from a qualified professional demonstrating that the generators conform to the specified standard. Should the applicant propose to achieve noise attenuation by placing the generators inside a building(s), the applicant shall secure a building permit prior to construction.

19. The applicant shall execute and file with the Planning Division the statement titled, "Notice and Acknowledgment regarding Agricultural Activities in Humboldt County," ("Right to Farm" ordinance) as required by the HCC and available at the Planning Division.

20. The applicant shall be compliant with the County of Humboldt's Certified Unified Program Agency (CUPA) requirements regarding hazardous materials. A written verification of compliance shall be required before any provisional permits may be finalized. Ongoing proof of compliance with this condition shall be required at each annual inspection in order to keep the permit valid.

21. Within 30 days of application approval, the applicant shall obtain a Business License from the Humboldt County Tax Collector.

22. A review fee for Conformance with Conditions as set forth in the schedule of fees and charges as adopted by ordinance of the Humboldt County Board of Supervisors (currently $125.00) shall be paid to the Humboldt County Planning Division, 3015 "H" Street, Eureka. This fee is a deposit, and if actual

review costs exceed this amount, additional fees will be billed at the County's current burdened hourly rate.

Ongoing Requirements/Development Restrictions Which Must be Satisfied for the Life of the Project:

1. All components of project shall be developed, operated, and maintained in conformance with the Project Description, the approved Site Plan, the Plan of Operations, and these conditions of approval. Changes shall require modification of this permit except where consistent with Humboldt County Code Section 312-11.1, Minor Deviations to Approved Plot Plan.

2. Cannabis cultivation and other commercial cannabis activity shall be conducted in compliance with all laws and regulations as set forth in the CMMLUO and MMRSA, as applicable to the permit type.

3. If operating pursuant to a written approved compliance agreement, permittee shall abate or cure violations at the earliest feasible date, but in no event no more than two (2) years from the date of issuance of a provisional clearance or permit. Permittee shall provide plans for curing such violations to the Planning & Building Department within one (1) year of issuance of the provisional clearance or permit. If good faith effort towards compliance can be shown within the two years following the issuance of the provisional clearance or permit, The Planning Department may, at the discretion of the Director, provide for extensions of the provisional permit to allow for additional time to meet the outstanding requirements.

4. Possession of a current, valid required license, or licenses, issued by any agency of the State of California in accordance with the MCRSA, and regulations promulgated thereunder, as soon as such licenses become available.

5. Compliance with all statutes, regulations and requirements of the California State Water Resources Control Board and the Division of Water Rights, at a minimum to include a statement of diversion of surface water from a stream, river, underground stream, or other watercourse required by Water Code Section 5101, or other applicable permit, license, or registration, as applicable.

6. Confinement of the area of cannabis cultivation, processing, manufacture or distribution to the locations depicted on the approved site plan. The commercial cannabis activity shall be set back at least 30 feet from any property line, and 600 feet from any School, School Bus Stop, Church or other Place of Religious Worship, or Tribal Cultural Resources, except where a reduction to this setback has been approved pursuant to Section 55.4.11(d).

7. Maintain enrollment in Tier 1, 2 or 3, certification with the North Coast Regional Water Quality Control Board (NCRWQCB) Order No. R1-2015-0023, if applicable, or any substantially equivalent rule that may be subsequently adopted by the County of Humboldt or other responsible agency.

8. Comply with the terms of any applicable Streambed Alteration (1600) Permit obtained from the Department of Fish & Wildlife, which may be required for the onsite well.

9. Comply with the terms of a less-than-3-acre conversion exemption or timberland conversion permit, approved by the California Department of Forestry and Fire Protection (CAL-FIRE), if applicable.

10. Consent to an annual on-site compliance inspection, with at least 24 hours prior notice, to be conducted by appropriate County officials during regular business hours (Monday – Friday, 9:00 am – 5:00 pm, excluding holidays).

11. Refrain from the improper storage or use of any fuels, fertilizer, pesticide, fungicide, rodenticide, or herbicide.

12. Pay all applicable application and annual inspection fees.

13. The noise produced by any generator used on an emergency-only basis, for the pumping of water, or for cannabis drying, curing, and processing, shall not be audible by humans from neighboring residences. The decibel level for generators measured at the property line shall be no more than 60 decibels. Where applicable, sound levels must also show that they will not result in the harassment of Marbled Murrelet or Spotted Owl species. Conformance will be evaluated using current auditory disturbance guidance prepared by the United State Fish and Wildlife Service, and further consultation where necessary. Under these guidelines, generator noise may not exceed 50dB as measured at 100 feet from the generator or at the edge of the nearest Marbled Murrelet or Spotted Owl habitat, whichever is closer.

14. Storage of Fuel - Fuel shall be stored and handled in compliance with applicable state and local laws and regulations, including the County of Humboldt's CUPA program, and in such a way that no spillage occurs.

15. The Master Log Books maintained by the applicant to track production and sales shall be maintained for inspection by the County.

16. Pay all applicable taxes as required by the Humboldt County Commercial Marijuana Cultivation Tax Ordinance (Humboldt County Code Section 719-1 et seq.).

17. The operation shall participate in the Medical Cannabis Track and Trace Program administered by the Humboldt County Agricultural Commissioner, when available.

Performance Standards for Cultivation and Processing Operations

18. Pursuant to the MCRSA, Health and Safety Code section 19322(a)(9), an applicant seeking a cultivation license shall "provide a statement declaring the applicant is an 'agricultural employer,' as defined in the Alatorre-Zenovich-Dunlap-Berman Agricultural Labor Relations Act of 1975 (Part 3.5 commencing with Section 1140) of Division 2 of the Labor Code), to the extent not prohibited by law."

19. Cultivators shall comply with all applicable federal, state, and local laws and regulations governing California Agricultural Employers, which may include: federal and state wage and hour laws, CAL/OSHA, OSHA, California Agricultural Labor Relations Act, and the Humboldt County Code (including the Building Code).

20. Cultivators engaged in processing shall comply with the following Processing Practices:
    i. Processing operations must be maintained in a clean and sanitary condition including all work surfaces and equipment;
    ii. Processing operations must implement protocols which prevent processing contamination and mold and mildew growth on cannabis;
    iii. Employees handling cannabis in processing operations must have access to facemasks and gloves in good operable condition as applicable to their job function; and,
    iv. Employees must wash hands sufficiently when handling cannabis or use gloves.

21. All persons hiring employees to engage in commercial cannabis cultivation and processing shall comply with the following Employee Safety Practices:
    I. Cultivation operations and processing operations must implement safety protocols and provide all employees with adequate safety training relevant to their specific job functions, which may include:
        (a) Emergency action response planning as necessary;
        (b) Employee accident reporting and investigation policies;
        (c) Fire prevention;
        (d) Hazard communication policies, including maintenance of material safety data sheets (MSDS);
        (e) Materials handling policies;

(f) Job hazard analyses; and
(g) Personal protective equipment policies, including respiratory protection.

II. Cultivation operations and processing operations must visibly post and maintain an emergency contact list which includes at a minimum:
(a) Operation manager contacts;
(b) Emergency responder contacts; and
(c) Poison control contacts.

III. At all times, employees shall have access to safe drinking water and toilets and handwashing facilities that comply with applicable federal, state, and local laws and regulations. Plumbing facilities and water source must be capable of handling increased usage without adverse consequences to neighboring properties or the environment.

IV. On-site housing provided to employees shall comply with all applicable federal, state, and local laws and regulations.

22. All cultivators shall comply with the approved Processing Plan as to the following:
I. Processing Practices;
II. Location where processing will occur;
III. Number of employees, if any;
IV. Employee Safety Practices;
V. Toilet and handwashing facilities;
VI. Plumbing and/or septic system and whether or not the system is capable of handling increased usage;
VII. Drinking water for employees;
VIII. Plan to minimize impact from increased road use resulting from processing; and
IX. On-site housing, if any.

23. Term of Commercial Cannabis Activity Special Permit. Any Commercial Cannabis Cultivation SP issued pursuant to the CMMLUO shall expire after one (1) year after date of issuance, and on the anniversary date of such issuance each year thereafter, unless an annual compliance inspection has been conducted and the permitees and the permitted site have been found to comply with all conditions of approval.

24. If the inspector or other County official determines that the permitees or site do not comply with the conditions of approval, the inspector shall serve the SP or permit holder with a written statement identifying the items not in compliance, and the action that the permit holder may take to cure the non-compliance, or file an appeal within ten (10) days of the date that the written statement is delivered to the permit holder. Personal delivery or mailing the written statement to the mailing address listed on the application by regular mail, plus three (3) days after date of mailing, shall constitute delivery. The permit holder may request a reinspection to determine whether or not the permit holder has cured all issues of non-compliance. Failure to request reinspection or to cure any items of non-compliance shall terminate the Special Permit, immediately upon the expiration of any appeal period, or final determination of the appeal if an appeal has been timely filed pursuant to section 55.4.13.

25. Permit Renewals to comply with Updated Laws and Regulations. Permit renewal per Ongoing Condition of Approval #24 above is subject to the laws and regulations effective at the time of renewal, which may be substantially different than the regulations currently in place and may require the submittal of additional information to ensure that new standards are met.

26. Acknowledgements to Remain in Full Force and Effect. Permittee Acknowledges that the County reserves the right to reduce the size of the area allowed for cultivation under any clearance or permit issued in accordance with this Section in the event that environmental conditions, such as a sustained

drought or low flows in the watershed in which the cultivation area is located will not support diversions for irrigation.

27. Permittee further acknowledges and declares that:

    (I) All commercial cannabis activity that I, my agents, or employees conduct pursuant to a permit from the County of Humboldt for commercial cultivation, processing, manufacturing, and distribution of cannabis for adult use or medicinal use within the inland area of the County of Humboldt, shall at all times be conducted consistent with the provisions of the approved County permit; and

    (II) All cannabis or cannabis products under my control, or the control of my agents or employees, and cultivated or manufactured pursuant to local Ordinance and the State of California Medicinal and Adult Use Cannabis Regulation and Safety Act ("MAUCRSA") (SB 94), will be distributed within the State of California; and

    (III) All commercial cannabis activity conducted by me, or my agents or employees pursuant to a permit from the County of Humboldt will be conducted in compliance with the State of California MAUCRSA.

28. Transfers. Transfer of any leases or permits approved by this project is subject to the review and approval of the Planning Director for conformance with CMMLUO eligibility requirements, and agreement to permit terms and acknowledgments. The fee for required permit transfer review shall accompany the request. The request shall include the following information:

    a. Identifying information for the new Owner(s) and management as required in an initial permit application;
    b. A written acknowledgment by the new Owner in accordance as required for the initial Permit application;
    c. The specific date on which the transfer is to occur;
    d. Acknowledgement of full responsibility for complying with the existing Permit; and
    e. Execution of an Affidavit of Non-diversion of Medical Cannabis.

29. Inspections. The permit holder and subject property owner are to permit the County or representative(s) or designee(s) to make inspections at any reasonable time deemed necessary to assure that the activities being performed under the authority of this permit are in accordance with the terms and conditions prescribed herein.

Informational Notes:

1. Pursuant to section 314-55.4.11(a) of the CMMLUO, if upon inspection for the initial application, violations of any building or other health, safety, or other state of county statute, ordinance, or regulation are discovered, the Planning and Building Department may issue a provisional clearance or permit with a written approved Compliance Agreement. By signing the agreement, the permittee agrees to abate or cure the violations at the earliest opportunity but in no event more than two (2) years of the date of issuance of the provisional clearance or permit. Plans for curing the violations shall be submitted to the Planning and Building Department by the Permittee within one (1) year of the issuance of the provisional certificate or permit. The terms of the compliance agreement may be appealed pursuant to section 314-55.4.13 of the CMMLUO.

2. This provisional permit approval shall expire and become null and void at the expiration of one (1) year after all appeal periods have lapsed (see "Effective Date"); except where the Compliance Agreement per COA #1 has been executed and the corrective actions pursuant to the agreement are being undertaken. Once building permits have been secured and/or the use initiated pursuant to the terms of the agreement, the use is subject to the Permit Duration and Renewal provisions set forth in Condition of Approval #25 and 26 of the On-Going Requirements /Development Restrictions,

above.

3. If cultural resources are encountered during construction activities, the contractor on site shall cease all work in the immediate area and within a 50 foot buffer of the discovery location. A qualified archaeologist as well as the appropriate Tribal Historic Preservation Officer(s) are to be contacted to evaluate the discovery and, in consultation with the applicant and lead agency, develop a treatment plan in any instance where significant impacts cannot be avoided.

   Prehistoric materials may include obsidian or chert flakes, tools, locally darkened midden soils, groundstone artifacts, shellfish or faunal remains, and human burials. If human remains are found, California Health and Safety Code 7050.5 requires that the County Coroner be contacted immediately at 707-445-7242. If the Coroner determines the remains to be Native American, the NAHC will then be contacted by the Coroner to determine appropriate treatment of the remains pursuant to PRC 5097.98. Violators shall be prosecuted in accordance with PRC Section 5097.99.

4. The applicant is required to pay for permit processing on a time and material basis as set forth in the schedule of fees and charges as adopted by ordinance of the Humboldt County Board of Supervisors. The Department will provide a bill to the applicant after the decision. Any and all outstanding Planning fees to cover the processing of the application to decision by the Hearing Officer shall be paid to the Humboldt County Planning Division, 3015 "H" Street, Eureka.

Received by ICF 7.11.18

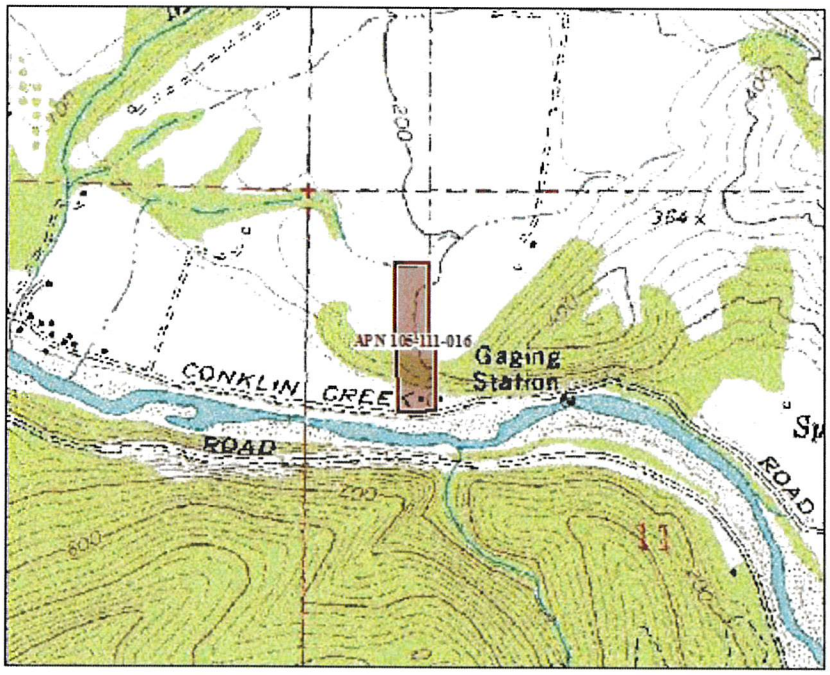
Water Resource Protection Plan

for

APN 105-111-016

Located at
1197 Conklin Creek Road
Petrolia, California

July 2018



Prepared for:
WDID #1B161290CHUM
PWA #180101070209-5428
1197 Conklin Creek Road, Petrolia, CA

Prepared by:
Thomas H. Leroy, CEG# 2593
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P.O. Box 4433, Arcata, CA 95518
(707) 839-5130

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1.0 PROJECT SUMMARY

This report documents Pacific Watershed Associate's (PWA)[1] Water Resource Protection Plan (WRPP) for APN 105-111-016 located at 1197 Conklin Creek Road, Petrolia, California, as shown on Figure 1. This property is located approximately 1.5 road miles southeast of Petrolia, Humboldt County, CA, 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 North Coast Regional Water Quality Control Board's (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 May 6, 2017, by PWA geologist Thomas H. Leroy, 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 we have 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. 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

[1] PWA is an approved Third Party Program for the North Coast Regional Water Quality Control Board's (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").

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.

We have 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 WRPP will need to be updated with the new information, including possible additions or changes to the recommended remedial or corrective actions 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.

Tom Leroy
Certified Engineering Geologist #2593
Pacific Watershed Associates, Inc.
P.O. Box 4433, Arcata, California 95518

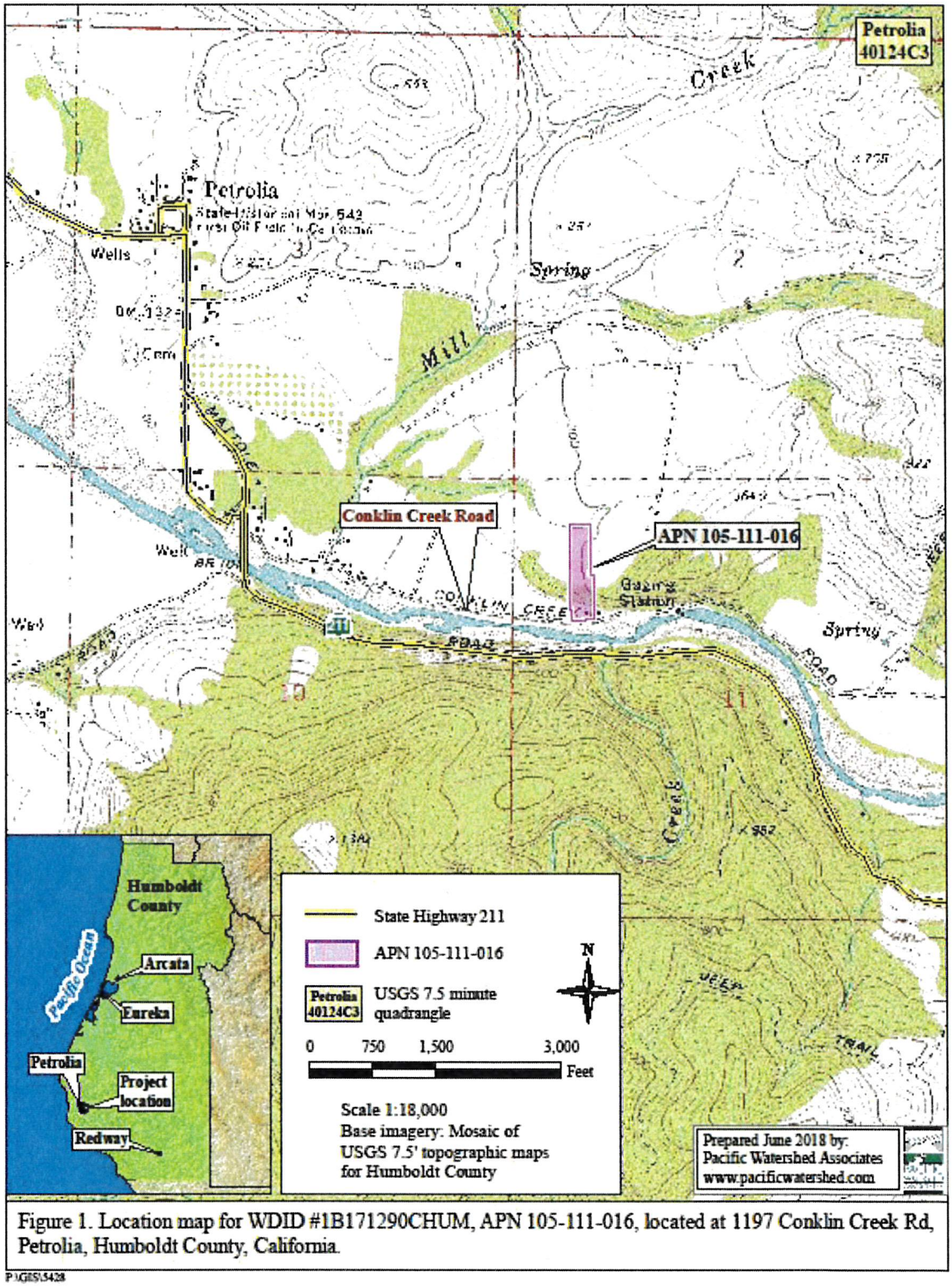

Figure 1. Location map for WDID #1B171290CHUM, APN 105-111-016, located at 1197 Conklin Creek Rd, Petrolia, Humboldt County, California.

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3.0 INTRODUCTION

This Water Resources Protection Plan (WRPP) summarizes the results of Pacific Watershed Associate's (PWA) May 6, 2017, site visit and subsequent analysis and documentation of site conditions on APN 105-111-016 located at 1197 Conklin Creek Road, Petrolia, 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 North Coast Regional Water Quality Control Board's (NCRWQCB) Order No. 2015-0023 to protect water quality from cannabis cultivation and related activities (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.

The WRPP contains the following required sections:

1. Legible map (Figure 2) depicting the required site elements 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. A water use plan, including water sources, water use and storage rights documentation, monthly water use documentation (quantity), 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 105-111-016 as of 5/6/2017

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 protect water quality and 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.

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? Yes

Observations/Comments: PWA inspected the driveway (approx. 200 feet long) and a quad trail (approx. 475 feet long). The driveway is maintained with a thick layer of gravel. The north half of the site where the cultivation sites are located is mildly sloped (approx. 7%). The south half of the site where the residence and driveway are located is also mildly sloped (approx. 16%). In between these two areas is a rise (approx. 20%-30%) were the quad trail passes through a wooded area (see Figure 2). Surface runoff from the quad trail on the steeper section drains to a flat vegetated area west of the residence. Although there is surface erosion on the quad trail, there is no evidence of surface erosion resulting in delivery of sediment to surface water.

Photos: Photo 1-2

Corrective or remedial actions needed: None

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? Yes

Observations: The driveway drains to the west into a grassy field. The quad trail drains to a grassy field west of the residence. There was no evidence of erosion from the driveway. The surface of the quad trail exhibiting surface erosion is rocky, and any sediment is captured by the grassy flat west of the residence.

Photos: See Standard Condition 4.1a photos, above.

Corrective or remedial actions needed: None

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: PWA did not observe unstable areas or potential drainage impacts to slopes on the site.

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? Yes

Observations/Comments: The cultivation areas are located on a mildly sloping area that drains to the southwest. No streams are located near this area. Concentrated drainage on the quad trail is discharged into a mildly sloping grassy area west of the residence.
Photos: None
Corrective or remedial actions needed: None

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? Yes
Observations/Comments: There was no evidence of erosion or concentrated stormwater flows from the roads and cultivation areas to any stream.
Photos: None
Corrective or remedial actions needed: None

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: All materials were stored in secure locations.
Photos: None
Corrective or remedial actions needed: None

Standard Condition #1. - General comments and recommendations: Maintain the lead off ditch from the quad trail to allow discharge of stormwater to the grassy area west of the residence.

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? Yes
Observations/Comments: There are no stream crossings on the project site.
Photos: None
Corrective or remedial actions needed: None

b) *Culverts and stream crossings shall be designed and maintained to address debris associated with the expected 100-year peak streamflow.*
Meets condition? Yes
Observations/Comments: See Standard Condition 4.2a observations/comments, above.
Photos: None
Corrective or remedial actions needed: None

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: See Standard Condition 4.2a observations/comments, above.
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? Yes
Observations/Comments: See Standard Condition 4.2a observations/comments, above.
Photos: None
Corrective or remedial actions needed: None

e) *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: See Standard Condition 4.2a observations/comments, above.
Photos: None
Corrective or remedial actions needed: None

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: There are no watercourses within the Project Site. The Mattole River is located approximately 100 feet south (horizontal) of the parcel boundary and there is a small Class II stream located approximately 60 feet north of the parcel boundary. There are no cultivation areas or related facilities within 100 feet of the Mattole River or the Class II stream.
Photos: None
Corrective or remedial actions needed: None

b) *Buffers shall be maintained at natural slope with native vegetation.*
Meets condition? Yes
Observations/Comments: See Standard Condition 4.3a observations/comments, above. There is no intent from the landowner to disturb, modify or develop the existing riparian buffer within the ownership.
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: See Standard Condition 4.3a observations/comments, above.
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: No spoils from road grading or site grading are stored on the Project Site.
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: No spoils from road grading or site grading have been sidecast.
Photos: None
Corrective or remedial actions needed: None

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 water supply for residential use and irrigation comes from one on-site well and an offsite spring approximately 1,100 feet south of the parcel boundary and across the Mattole River on APN 104-171-004. The well was established in the 1950s. The spring box diversion is known as "Roberts Spring Box," and is on an unnamed stream that is tributary to Clear Creek south of the Mattole River. Current water storage is approximately 1,500 gallons in one rigid water tank.

A Preliminary Water Budget has been prepared for the Project Site based on the current total cultivation area and existing water storage at the time of the field inspection, and an estimated water usage of 10 gallon/ft^2/year for the cultivation area (per comm. Humboldt County Planning and Building Department) during the forbearance period from May 15th to October 31st. At the time of the site visit, the Project Site contained 21,300 ft^2 of cultivation area, and 1,500 gallons of water storage. Based on the above estimate of irrigation water necessary to forebear (not divert) during the dry season, a volume of 213,000 gallons of storage capacity may be needed. Based on these estimates, there is not enough water storage for your cultivation needs during the dry season forbearance period or if well water supply is diminished. Water monitoring will provide you with a more accurate water use and water storage capacity demand for your Project Site.

Photos: Photo 3-5 and 7, MP #1, MP #2

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. 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: The operator reported that conservation measures such as drip irrigation are being implemented.
Photos: Photo 6
Corrective or remedial actions needed: Investigate and continue to employ additional water conservation practices to minimize water diversion and use, including: 1) irrigation scheduling (watering during the early morning and early evening), 2) the use of cover crops during rotations and winter to protect and increase soil fertility; 3) mulching during crop rotations and winter; 4) top mulching beds with straw to limit evaporation 5) the use of compost to improve soil structure and increase its water-holding capacity; 6) the use of water retaining soil mediums and native soil during the initial soil preparation at the start of the season to better retain moisture and therefore limit the frequency of irrigation; and 7) planting in-ground and not in above-ground pots.

c) *For Tier 2 Dischargers, if possible, develop off-stream storage facilities to minimize surface water diversion during low flow periods.*
Meets condition? No
Observations/Comments: There are only 1,500 gallons of water storage in one rigid water tank on the Project Site.
Photos: Photo 7
Corrective or remedial actions needed: Provide sufficient water storage capacity to minimize diverting from Roberts Spring Box during the forbearance period from May 15th to October 31st. The owner proposes to add a second well at a location closer to the cultivation areas, and develop an off-stream pond that can be filled through rainwater harvesting and diversion from surface water during the winter season. PWA recommends increasing rainwater harvesting activities and adding rainwater-fed storage facilities.

d) *Water is applied using no more than agronomic rates.*
Meets condition? Yes
Observations/Comments: According to the landowner, water is applied sparingly, and only as needed, using timed drip irrigation during the morning and evening. No direct evidence of irrigation runoff was observed on the Project Site.
Photos: Photo 6
Corrective or remedial actions needed: To verify compliance with the Order and to 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, in order to develop 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.

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: Water used on site is from an on-site well and an off-site spring diversion. Both sources supply water for residential use and irrigation. ISDUs for both the well and the spring were submitted in 2017. An ISDU for the spring box has been submitted prior to 2017, but records at the Division of Water Rights were lost. A SIUR has been filed for the Project Site that included all water diversions, and proposed storage facilities, including a 500,000-gallon off-stream pond.
Photos: Photo 3-5, and 7, MP #1, MP #2
Corrective or remedial actions needed: Water diversion from off-site sources and water storage of surface water requires valid water rights. This standard condition will be met when the water rights for storage of surface water are achieved.

Domestic water rights: If you plan to continue flow diversions for your domestic water needs, you may need to file, obtain, and maintain water rights for your parcel, or provide other documentation of your legal water rights (pre-1914).

The Small Domestic Use Appropriation (SDU) may be needed for the off-site spring diversion 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: The SIUR has been filed for existing and proposed water storage through the State Water Resources Control Board, Division of Water Rights (SWRCB) Small Irrigation Use Registration (SIUR) for cannabis cultivation.

- Small Irrigation Use Registration (SIUR)
  https://public2.waterboards.ca.gov/cgo

  There is an online application portal for this program located at:
  https://public2.waterboards.ca.gov/cgo

Fish and Wildlife impacts: You have filed a Notice of Lake and Streambed Alteration and are working toward an Agreement (LSAA).
- Lake and Streambed Alteration Agreement (Standard Agreement LSAA).
  https://www.wildlife.ca.gov/Conservation/LSA

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? Yes
Observations/Comments: The 1,500-gallon tank near Greenhouse #1 appears to be sited in a stable location.
Photos: Photo 7
Corrective or remedial actions needed: None

Standard Condition #5 - General comments and recommendations: Investigate if a 401 Water Quality Certification and Wetlands Program permit is required prior to construction of the proposed pond or any work in a stream. You may submit Appendix D Tire 2 Surface Water Correction Work Plan Requirements for Coverage of Remediation and Restoration work in streams and wetlands Under Waiver of Waste Discharge requirements Order Number R1-2015-0023.

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: There was no evidence of irrigation run-off from the cultivation areas. The slope of the surrounding area is low-gradient and well-vegetated. There are no nearby watercourses.
Photos: None
Corrective or remedial actions needed: None

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? No
Observations/Comments: In general, fertilizers and soil amendments were stored under a covered area on the outside of the shed/storage/nursery building. Bulk spent soil was properly tarped (Figure 2). At one location near Cultivation Area #1, partially-filled containers of liquid nutrients were stored in the open near the mixing tank.
Photos: Photos 8-12, MP #3, MP #5
Corrective or remedial actions needed: Although the fertilizers are protected from rainfall, containers should be located off the ground. The containers of liquid nutrients next to the 300-gallon mixing tank should be moved to a stable and watertight location. 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 operator, the recommended application rates are being followed.

Photos: None

Corrective or remedial actions needed: You are required by the Order to keep detailed records of the type, timing and amount of 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 accurate 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.

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: The owner keeps the covers on the green houses over the winter and tarps the empty pots during the wet season to prevent nutrient leaching and erosion of the soil medium. Spent soil is properly tarped.

Photos: Photo 10

Corrective or remedial actions needed: None

Standard Condition #7 - General comments and recommendations: Soil amendments, potting soils, compost and fertilizers should be stored under a roof or fully tarped during the wet season such that they are protected from the elements. Plant cover crops in spent pots, beds and holes to enrich soil and lock up nutrients during the off-season. Winterize all cultivation areas by placing straw waddles on the downslope perimeter and/or by mulching/seeding any bare soil areas on cultivation sites. If you temporarily store spent soils or amendments outside, make sure any residue is tarped or thoroughly removed afterwards. Bulk amendments should be moved inside, or tarped, during the wet season (October 31 – May 15) to prevent nutrient leaching. Do not store fertilizers with petroleum products. See Standard Condition #9, "General comments and recommendations" for information on storage of hazardous and incompatible materials.

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: Based on verbal communication with the operator, organic and non-systemic pest control methods are used. The recommended application rates are being followed for all pesticides. All pesticides are labeled, stored together, and kept under the overhang of the storage/shed/nursery building.

Photos: Photo 9 and Photo 11

Corrective or remedial actions needed: All pesticides, herbicides and related materials (e.g., fungicides) must be used and applied consistent with product labeling. When present, these chemicals should be stored within enclosed buildings in such a way they cannot enter or be released into surface or ground waters.

For this requirement to be met, pesticide use must be documented. Under 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 E.

Additionally, for any pesticide use you must comply with any Pesticide Registration Requirements. See 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

Standard Condition #8 - General comments and recommendations: 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. Do not store pesticides with petroleum products. See Standard Condition #9 General Comments and recommendations, below.

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: The residence has propane tanks that are serviced by a local propane provider. There is electrical power to the site. Five-gallon gas containers were stored outside under the overhang of the storage/shed/nursery building and outside near the residence without secondary containment.

Photos: Photos 13 and 14; MP #4 and MP #5

Corrective or remedial actions needed: Store chemicals and fertilizer in the Processing/Nursery Building until the proposed new metal building is completed. Separate the storage areas for chemicals (e.g., pesticides and herbicides), fertilizers,

and fuels. All petroleum products and other liquid chemicals onsite must be stored under cover and off the ground and in a secondary containment basin (tote, tub, impermeable basin/floor etc.) capable of containing the entire stored volume.

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: No large fuel storage tanks are located on site. Five-gallon gasoline containers are stored outside near the residence and under the overhang of the shed/storage/nursey building.
Photos: Photos 13-14, MP #4, MP #5
Corrective or remedial actions needed: See Standard Condition 4.9a corrective or remedial actions, above.

c) *Dischargers shall ensure that diked areas are sufficiently impervious to contain discharged chemicals.*

Meets condition? N/A
Observations/Comments: There are no diked areas 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 kits were observed near the fuel storage, liquid nutrient, or pesticide storage areas.
Photos: See Standard Condition 4.9a photos and monitoring points, above.
Corrective or remedial actions needed: Have one or more spill prevention cleanup kits onsite and easily accessible at all times to help clean up small spills at each storage and use location. Spill kits should be located where fuel and liquid nutrients are stored and where use occurs.

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 110-gallon or larger tanks 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".

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 G.

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: There were empty (and one partially-full) liquid nutrient containers stored by the mixing tank near Cultivation Area #1. More empty containers are located outside near the trailer, along with poly-pipe and netting. These items are stored securely and far away from surface water. Containers are stored for reuse under the overhang of the shed/storage/nursery building. PWA did not note any disorderly storage of reusable materials, except for tarps piled next to greenhouses that were in use. Plant material is composted in a location north of the cultivation area and the vegetable garden

Photos: Photos 12, 15-16, MP #3, MP #6

Corrective or remedial actions needed: Tarp the compost pile to prevent infiltration of nutrients into groundwater. Collect all empty nutrient containers and store securely in a stable location away from surface waters.

Standard Condition #10 - General comments and recommendations: We encourage you to chip or shred your plant stalks and compost them after harvest. Organic cultivation-related waste should be recycled if possible, and inorganic wastes and garbage 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: The residence is connected to an existing OWTS. An outhouse is located north of the motorhome and tent.
Photos: Photo 17, MP #7
Corrective or remedial actions needed: The Order requires a County permitted or approved OWTS. If the existing OWTS is unpermitted: 1) seek retroactive permitting from Humboldt County Division of Environmental Health (HCDEH); or 2) design and install one or more new, permitted OWTS. The system(s) will need to be designed to have sufficient capacity for the greatest number of people (residents, visitors and workers) during the most active time of the year. Additional field investigation may be required to determine the size of the existing OWTS and to verify if it is adequate for the level of use and current site conditions. Additional investigations for retroactive permitting may include: soil sampling, subsurface investigations, percolation testing, and groundwater monitoring to determine if the system is properly designed and constructed, and is suitable for the existing site conditions and expected level of use. Decommission the outhouse 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. Utilize one or more serviced portable toilets (or other county approved system) until an OWTS is retroactively permitted or a new OWTS is designed, constructed, and permitted. 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? Yes
Observations/Comments: Refuge and garbage is kept in plastic barrels inside the processing building.
Photos: None
Corrective or remedial actions needed: None

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

Meets condition? Yes
Observations/Comments: The operator periodically hauls waste offsite and disposes it at a transfer station/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 #	Estimated Cost	Date Completed
4.5 – Water Storage and Use	5a	High	August 1, 2018, and continuing	- 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. 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. - PWA highly recommends, and state agencies may require, that you install flow meters on your water well, water tanks and main distribution lines to accurately document your water diversion, pumping, storage and use throughout the year.	MP #1, MP #2; Photos 3-5		
	5b	Moderate	August 1, 2018 and continuing	- Investigate, test and employ, as feasible, additional water conservation including: 1) the use of timed or volume limited drip irrigation; 2) irrigation scheduling (watering during early morning and early evening), 2) the use of cover crops; 3) mulching during crop rotations and winter; 4) top mulching beds with straw to limit evaporation 5) using compost and mulch; 6) using water retaining soil mediums and native soil during the initial soil preparation; and 7) planting in-ground and not in above-ground pots.	Photo 6		

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 #	Estimated Cost	Date Completed
	5c	High	October 15, 2020	- Provide sufficient water storage capacity (a minimum of 213,000 gallons) to minimize diverting from surface water for irrigation during the forbearance period from May 15th to October 31st. The owner wants to add a second well at a location closer to the cultivation areas and develop a 500k-gal off-stream pond that can be filled through rainwater harvesting and diversion from surface water during the winter season. PWA recommends increasing rainwater harvesting activities and adding rainwater-fed storage facilities.	MP #1, Photos 3-4		
	5d	Moderately - High	August 1, 2018 and continuing	- To verify compliance with the Order and to 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, in order to develop 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.	Photo 6		
	5e	Moderately - High	October 1, 2018	Investigate if a 401 Water Quality Certification and Wetlands Program permit is required prior to construction of the proposed pond or any work in a stream. You may submit Appendix D Tire 2 Surface Water Correction Work Plan Requirements for Coverage of Remediation and Restoration work in streams and wetlands Under Waiver of Waste Discharge requirements Order Number R1-2015-0023.	-		
	5e	High	Ongoing	Continue with the application for the SIUR and LSAA permits.	-		
4.7 - Fertilizer and Amendment Use	7a	High	August 1, 2018, and continuing	Although the fertilizers are protected from rainfall, containers should be located off the ground. The containers of liquid nutrients next to the 300-gallon mixing tank should be moved to a stable and watertight location. 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.	MP #3, MP #5, Photos 8-12,		

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 #	Estimated Cost	Date Completed
	7b	High	August 1, 2018, and continuing	- You are required by the Order to keep detailed records of the type, timing and amount of 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. - Observe and monitor soil moisture so watering, fertilizer and chemical applications are made only when necessary and overwatering and excess infiltration is avoided.			
4.8 – Pesticides and Herbicides	8a	High	August 1, 2018, and continuing	- If you use any pesticides, herbicides and related materials (e.g., fungicides) you must record the type, timing and volume you store and use in your operations (see log forms provided in Appendix F). - Store all pesticides separately from petroleum products.	-	-	
4.9 – Petroleum Products and Other Chemicals	9a, b	High	August 1, 2018	- Store chemicals and fertilizer in the Processing/Nursery Building until the proposed new metal building is completed. - Separate the storage areas for chemicals (e.g., pesticides and herbicides), fertilizers, and fuels. See Standard Condition #9 General Comments and Recommendations, below) for more information on storage of incompatible chemicals. - All petroleum products and other liquid chemicals onsite must be stored under cover and off the ground and in a secondary containment basin (tote, tub, impermeable basin/floor etc.) capable of containing the entire stored volume.	MP #4-5, Photos 13-14	-	
	9d	High	August 1, 2018	- Have one or more 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.	MP#4, MP#5, Photos 13-14		
4.10 – Cultivation-related Wastes	10a	Moderate	Oct 15, 2018	- Tarp the compost pile to prevent infiltration of nutrients into groundwater. Aggregate all empty nutrient containers and store securely in a stable location away from surface waters.	MP # 6, Photo 16		
4.11 – Refuse & Human Waste	11a	Moderate	October 15, 2020	- Decommission the outhouse 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. The Order requires a County permitted or approved OWTS: - Determine if the existing septic system is permitted through Humboldt County Division of Environmental Health (HCDEH).	MP#7		

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 #	Estimated Cost	Date Completed
				- If the existing OWTS is unpermitted: 1) seek retroactive permitting by working with HCDEH and a qualified professional to determine if it is properly located, designed, constructed and sized, or 2) design and install one or more new, properly sized, permitted OWTS. - The system(s) will need to be designed to have sufficient capacity for the greatest number of people (residents, visitors and workers) using the site during the most active time of the year. - Utilize one or more serviced portable toilets (or other county approved system) until the OWTS is retroactively permitted or a new OWTS is designed, constructed, and permitted. Keep servicing records for possible inspection.			

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 PLAN

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 1,500 gallons of water storage in one rigid tank reserved for fire suppression. Based on water use estimates calculated using average water use rates from the Humboldt County Planning and Building Department, there is not enough water storage on the Project Site to forbear (not divert) during the dry season. This estimate assumes that 10 gallons of water is needed for every square foot of cultivation to observe the forbearance period. Based on the existing cultivation area of 21,300 ft^2, 213,000 gallons of water storage is needed to observe the 150-day forbearance period. Therefore, additional water storage will be required, preferably rigid rainwater catchment 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. 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 include drip irrigation. Starting this year, test, evaluate and employ, as feasible, additional water conservation measure such as those included in the list in Section 4.5b, above. 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 an off-site spring diversion and one groundwater well for irrigation and domestic use (Figure 2). Based on preliminary calculations, there is inadequate water storage on the Project Site necessary to forbear between May 15th to October 31st. Rainwater harvesting should be evaluated and employed where possible to limit or eliminate spring diversion during the dry season. It will be important for you to keep accurate records of the surface water you divert, store and use to determine the additional storage volume needed for the size of the operation, and so this water data can be reported each year, as required by the NCRWQCB and SWRCB-DWR. The more frequently and accurately water use is recorded, the better you will understand the water uses and needs of your farm, the value of water conservation, and the volume of water storage that is needed for you to forbear (not divert) during the dry summer growing season.

Over the course of the current season, water use will be documented using the log forms attached in Appendix D. As more accurate 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. An Initial Statement of Diversion and Use (ISDU) was submitted for the spring diversion and groundwater well. Supplemental statements of use will need to be filed annually for the ISDU by June 30th of each year. Water rights may need to be obtained for domestic and irrigation uses through a Small Domestic Use (SDU) Appropriation and a Small Irrigation Use Registration (SIUR) for cannabis cultivation, respectively. Finally, a Lake and Streambed Alteration Agreement (LSAA) is required through the California Department of Fish and Wildlife (CDFW) to address the spring diversion.

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.

Appendixes E and F 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:

2017	gal
Grow	150
Micro	200
Bloom	250
Soil Amendments	Pounds
Green Bicycles Ocean Flower	500
Bat Guano, Cottonseed Meal	
Azomite	300

Pesticides, Herbicides, and Fungicides:
None

Petroleum and Other Chemicals:
Gasoline

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): Karl Benemann

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

Signature: Karl Benemann Date: July 9/18

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

WRPP prepared and finalized on (date): July 9, 2018

Signature: Nancy Athinson Date: July 9, 2018

Appendix A

Best Management Practices for Discharges of Waste Resulting from Cannabis Cultivation and Associated Activities or Operations with Similar Environmental Effects

Best Management Practices for Discharges of Waste Resulting from Cannabis Cultivation and Associated Activities or Operations with Similar Environmental Effects

I. Introduction

Best management practices (BMPs) provided here may be applicable to prevent, minimize, and control the discharge of waste and other controllable water quality factors associated with site restoration/cleanup/remediation and site operations and maintenance. These BMPs are all considered enforceable conditions under the Order as applicable to a given site, and are referenced by and made conditions in the mitigated negative declaration (CEQA document) for the Order, as well.

This appendix to Order No. R1-2015-0023 includes section II. Standard BMPs for Construction, section III. BMPs for Site Maintenance and Operations (per standard conditions), and section IV. References. For additional BMP suggestions, staff encourage consultation of the various manuals listed in section IV. References, many of which are available online for free.

II. Standard BMPs for Construction

Where applicable during restoration, remediation, cleanup, or site maintenance activities, the following BMPs will be used.

A. General BMPs to Avoid or Minimize Adverse Impacts

Temporal Limitations on Construction

1. To avoid impacting migrating fish and causing erosion and sedimentation of the stream channel, the project work season shall be from May 1 to October 15. If operations are to be conducted during the winter period from October 15 to May 1, a winter period operating plan must be incorporated into the project work plan. This plan shall include specific measures to be taken in the winter operating period to avoid or substantially lessen erosion and sedimentation into surface waters.
2. A 2-day (48-hour) forecast[1] of rain shall be the trigger for temporary cessation of project activities and winterization/erosion protection of the work site.

[1] Any weather pattern that is forecasted by NOAA to have a 50% or greater probability of producing precipitation in the project area. The permittee shall obtain and keep for record likely precipitation forecast information from

Limitation on Earthmoving

3. Disturbance to existing grades and vegetation shall be limited to the actual site of the cleanup/remediation and necessary access routes.
4. Placement of temporary access roads, staging areas, and other facilities shall avoid or minimize disturbance to habitat.
5. Disturbance to native shrubs, woody perennials or tree removal on the streambank or in the stream channel shall be avoided or minimized. If riparian trees over six inches dbh (diameter at breast height) are to be removed, they shall be replaced by native species appropriate to the site at a 3:1 ratio. Where physical constraints in the project area prevent replanting at a 3:1 ratio and canopy cover is sufficient for habitat needs, replanting may occur at a lesser replacement ratio.
6. If shrubs and non-woody riparian vegetation are disturbed, they shall be replaced with similar native species appropriate to the site.
7. Whenever feasible, finished grades shall not exceed 1.5:1 side slopes. In circumstances where final grades cannot achieve 1.5:1 slope, additional erosion control or stabilization methods shall be applied as appropriate for the project location.
8. Spoils and excavated material not used during project activities shall be removed and placed outside of the 100-year floodplain, and stored/disposed of in compliance with Order conditions related to spoils management.
9. Upon completion of grading, slope protection of all disturbed sites shall be provided prior to the rainy season through a combination of permanent vegetative treatment, mulching, geotextiles, and/or rock, or equivalent.
10. Vegetation planting for slope protection purposes shall be timed to require as little irrigation as possible for ensuring establishment by the commencement of the rainy season.
11. Only native plant species shall be used with the exception of non-invasive, non-persistent grass species used for short-term vegetative cover of exposed soils.
12. Rock placed for slope protection shall be the minimum necessary to avoid erosion, and shall be part of a design that provides for native plant revegetation and minimizes bank armoring.

Limitations on Construction Equipment

13. Dischargers and/or their contractors shall ensure that chemical contamination (fuel, grease, oil, hydraulic fluid, solvents, etc.) of water and soils is prohibited during routine equipment operation and maintenance.
14. Heavy equipment shall not be used in flowing water. Please refer to BMPs 57 through 64 for dewatering of live streams.

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the National Weather Service Forecast Office (e.g. by entering the zip code of the project's location at http://srh.noaa.gov/forecast).

15. When possible, existing ingress or egress points shall be used or work shall be performed from the top of the creek banks.
16. Use of heavy equipment shall be avoided or minimized in a channel bottom with rocky or cobbled substrate.
17. If project work or access to the work site requires heavy equipment to travel on a channel bottom with rocky or cobbled substrate, wood or rubber mats shall be placed on the channel bottom prior to use by heavy equipment.
18. Heavy equipment shall not introduce chemicals or foreign sediment to the channel (e.g., remove mud from tracks or cover channel work area with plastic sheeting prior to heavy equipment entry).
19. The amount of time this equipment is stationed, working, or traveling within the channel shall be minimized.
20. When heavy equipment is used, any woody debris and stream bank or streambed vegetation disturbed shall be replaced to a pre-project density with native species appropriate to the site. If riparian trees over six inches dbh are to be removed, they shall be replaced by native species appropriate to the site at a 3:1 ratio per BMP 5.
21. The use or storage of petroleum-powered equipment shall be accomplished in a manner that prevents the potential release of petroleum materials into waters of the state (Fish and Game Code 5650). To accomplish this, the following precautionary measures shall be followed:
    - Schedule excavation and grading activities for dry weather periods.
    - Designate a contained area for equipment storage, short-term maintenance, and refueling. Ensure it is located at least 50 feet from waterbodies.
    - Inspect vehicles for leaks and repair immediately.
    - Clean up leaks, drips and other spills immediately to avoid soil or groundwater contamination.
    - Conduct major vehicle maintenance and washing offsite (except as necessary to implement BMP 18).
    - Ensure that all spent fluids including motor oil, radiator coolant, or other fluids and used vehicle batteries are collected, stored, and recycled as hazardous waste offsite.
    - Ensure that all construction debris is taken to appropriate landfills and all sediment disposed of in upland areas or offsite, beyond the 100-year floodplain.
    - Use dry cleanup methods (e.g., absorbent materials, cat litter, and/or rags) whenever possible. If necessary for dust control, use only a minimal amount of water.
    - Sweep up spilled dry materials immediately.

Revegetation and Removal of Exotic Plants

22. The work area shall be restored to pre-project work condition or better.

23. All exposed soil resulting from the cleanup/restoration activities shall be revegetated using live planting, seed casting or hydroseeding.
24. Any stream bank area left barren of vegetation as a result of cleanup/restoration activities shall be stabilized by seeding, replanting, or other means with native trees, shrubs, and/or grasses appropriate to the site prior to the rainy season in the year work was conducted.
25. Soil exposed as a result of project work, soil above rock riprap, and interstitial spaces between rocks shall be revegetated with native vegetation by live planting, seed casting, or hydroseeding prior to the rainy season of the year work is completed.
26. The spread or introduction of exotic plant species shall be avoided to the maximum extent possible by avoiding areas with established native vegetation during cleanup/restoration activities, restoring disturbed areas with appropriate native species, and post-project monitoring and control of exotic species.
27. Removal of invasive exotic species is strongly recommended. Mechanical removal (hand tools, weed whacking, hand pulling) of exotics shall be done in preparation for establishment of native perennial plantings.
28. Revegetation shall be implemented after the removal of exotic vegetation occurs. Erosion control implementation shall be timed in accordance with BMPs 1 and 2.
29. Native plants characteristic of the local habitat shall be used for revegetation when implementing and maintaining cleanup/restoration work in riparian and other sensitive areas. Non-invasive, non-persistent grass species (e.g., barley grass) may be used for their temporary erosion control benefits to stabilize disturbed slopes and prevent exposure of disturbed soils to rainfall.
30. Annual inspections for the purpose of assessing the survival and growth of revegetated areas and the presence of exposed soil shall be conducted for three years following project work.
31. Dischargers and/or their consultant(s) or third party representative(s) shall note the presence of native/non-native vegetation and extent of exposed soil, and take photographs during each inspection.
32. Dischargers and/or their consultant(s) or third party representative(s) shall provide the location of each work site, pre- and post-project work photos, diagram of all areas revegetated and the planting methods and plants used, and an assessment of the success of the revegetation program in the annual monitoring report as required under the Order.

Erosion Control

33. Erosion control and sediment detention devices and materials shall be incorporated into the cleanup/restoration work design and installed prior to the end of project work and before the beginning of the rainy season. Any continuing, approved project work conducted after October 15 shall have erosion control works completed up-to-date and daily.

34. Erosion control materials shall be, at minimum, stored on-site at all times during approved project work between May 1 and October 15.
35. Approved project work within the 5-year flood plain shall not begin until all temporary erosion controls (straw bales or silt fences that are effectively keyed-in) are installed downslope of cleanup/restoration activities.
36. Non-invasive, non-persistent grass species (e.g., barley grass) may be used for their temporary erosion control benefits to stabilize disturbed slopes and prevent exposure of disturbed soils to rainfall.
37. Upon work completion, all exposed soil present in and around the cleanup/restoration sites shall be stabilized within 7 days.
38. Soils exposed by cleanup/restoration operations shall be seeded and mulched to prevent sediment runoff and transport.

Miscellaneous

39. During temporary stream crossing siting, locations shall be identified where erosion potential is low. Areas where runoff from roadway side slopes will spill into the side slopes of the crossing shall be avoided.
40. Vehicles and equipment shall not be driven, operated, fueled, cleaned, maintained, or stored in the wet or dry portions of a waterbody where wetland vegetation, riparian vegetation, or aquatic organisms may be impacted.
41. Riparian vegetation, when removed pursuant to the provisions of the work, shall be cut off no lower than ground level to promote rapid re-growth. Access roads and work areas built over riparian vegetation shall be covered by a sufficient layer of clean river run cobble to prevent damage to the underlying soil and root structure. The cobble shall be removed upon completion of project activities.
42. Avoidance of earthwork on steep slopes and minimization of cut/fill volumes, combined with proper compaction, shall occur to ensure the area is resilient to issues associated with seismic events and mass wasting. If cracks are observed, or new construction is anticipated, consultation with a qualified professional is appropriate.
43. Operations within the 100-year floodplain shall be avoided. Refuse and spoils shall not be stored within the hundred-year floodplain. If roads are located within the 100-year floodplain, they shall be at grade; bridges shall have vented approaches and bridge deck shall be above anticipated 100-year flood water surface elevations. Consultation with a qualified professional is required for project work within the floodplain. .
44. Project work-related dust shall be controlled. Dust control activities shall be conducted in such a manner that will not produce sediment-laden runoff. Dust control measures, including pre-watering of excavation/grading sites, use of water trucks, track-out prevention, washing down vehicles/equipment before leaving site, and prohibiting grading/excavation activities during windy periods, shall be implemented as appropriate.

45. Short term impacts from project work-related emissions can be minimized via retrofitting equipment and use of low emissions vehicles when possible.
46. Position vehicles and other apparatus so as to not block emergency vehicle access.

B. BMPs for Specific Activities

Critical Area Planting, Channel Vegetation and Restoration and Management of Declining Habitats

The following measures shall be employed:

47. Plant materials used shall be native to the site and shall be locally collected if possible.
48. Straw mulch shall be applied at a rate of 2 tons per acre of exposed soils and, shall be secured to the ground.
49. When implementing or maintaining a critical area planting above the high water line, a filter fabric fence, straw wattles, fiber rolls and/or hay bales shall be utilized to keep sediment from flowing into the adjacent water body.

Structure for Water Control and Stream Crossings

These practices shall be used generally to replace or retrofit existing culverts and to install culverts where water control is needed at a stream crossing or road ditch to restore natural hydrology, and to reduce potential diversions and road-related erosion. In addition to the general limitations set forth in the previous section, the following measures shall be employed for these types of projects:

50. Culvert fill slopes shall be constructed at a 2:1 slope or shall be armored with rock.
51. All culverts in fish-bearing streams and in streams where fish have historically been found and may potentially re-occur, shall be designed and constructed consistent with NMFS Southwest Region's Guidelines for Salmonid Passage at Stream Crossings (NMFS 2000) and CDFG's Culvert Criteria for Fish Passage (CDFG 2002).

Limitations on Work in Streams and Permanently Ponded Areas

52. If it is necessary to conduct work in or near a live stream, the work space shall be isolated to avoid project activities in flowing water.
53. Water shall be directed around the work site.
54. Ingress/egress points shall be utilized and work shall be performed from the top of the bank to the maximum extent possible.
55. Use of heavy equipment in a channel shall be avoided or minimized. Please refer to BMPs 57 through 64 for dewatering of live streams. The amount of time construction equipment is stationed, working or traveling within the creek bed shall be minimized.

56. If the substrate of a seasonal pond, creek, stream or water body is altered during work activities, it shall be returned to approximate pre-construction conditions after the work is completed.

Temporary Stream Diversion and Dewatering: All Live Streams

57. For project work in a flowing or pooled stream or creek reach, or where access to the stream bank from the channel bottom is necessary, the work area shall be isolated with the use of temporary cofferdams upstream and downstream of the work site and all flowing water shall be diverted around the work site throughout the project period.
58. Other approved water diversion structures shall be utilized if installation of cofferdams is not feasible.
59. Cofferdam construction using offsite river-run gravel and/or sand bags is preferred. If gravel materials for cofferdams are generated onsite, measures shall be taken to ensure minimal disturbance to the channel, such as careful extraction from elevated terraces. The upstream end of the upstream cofferdam shall also be reinforced with thick plastic sheeting to minimize leakage.
60. Gravity diversions are preferred to pumping as dewatering techniques. If pumping is required to supplement gravity diversions, care shall be taken to minimize noise pollution and prevent the pump or generator-borne pollution to the watercourse.
61. The diversion pipe shall consist of a large plastic HDPE or ADS pipe or similar material, of a sufficient diameter to safely accommodate expected flows at the site during the full project period.
62. The pipe shall be protected from project activities to ensure that bypass flows are not interrupted.
63. Continuous flow downstream of the work site shall be maintained at all times during project work.
64. When project work is complete, the flow diversion structure shall be removed in a manner that allows flow to resume with a minimum of disturbance to the substrate.

Protection of Sensitive Species

65. Sensitive species - Consult with federal, state and local agencies regarding location of rare, threatened or endangered species.
66. Prior to commencing work, designate and mark a no-disturbance buffer to protect sensitive species and communities.
67. All work performed within waters of the state shall be completed in a manner that minimizes impacts to beneficial uses and habitat. Measures shall be employed to minimize land disturbances that shall adversely impact the water quality of waters of the state. Disturbance or removal of vegetation shall not exceed the minimum necessary to complete Project implementation.

68. All equipment, including but not limited to excavators, graders, barges, etc., that may have come in contact with extremely invasive animals (e.g. zebra mussels or new Zealand mud snails) or plant (e.g., Arundo donax, scotch broom, pampas grass) or the seeds of these plants, shall be carefully cleaned before arriving on site and shall also be carefully cleaned before removal from the site, to prevent spread of these plants.
69. Vegetation shall be established on disturbed areas with an appropriate mix of California native plants and/or seed mix. All initial plantings and seed shall be installed prior to completion of the project work.

III. BMPs for Site Maintenance and Operations (per standard conditions)

The following BMPs are intended to address compliance with the standard conditions. Individual or multiple BMPS may be selected to address compliance with a given standard condition depending on site-specific conditions. BMPs are considered enforceable conditions as applicable to a given site.

A. Site Maintenance, Erosion Control, Drainage Features

70. Drainage of roads, clearings, fill prisms, and terraced areas is critical to ensuring their integrity and to prevent or minimize sediment discharges to watercourses. Proper design and location of roads and other features is critical to ensuring that a road or other feature be adequately drained and is best accomplished through consultation with a qualified professional. If inspection identifies surface rills or ruts, surfacing and drainage likely needs maintenance.
71. Surfacing of exposed/disturbed/bare surfaces can greatly reduce erosion associated with runoff. BMP features such as vegetative ground cover, straw mulch, slash, wood chips, straw wattles, fiber rolls, hay bales, geotextiles, and filter fabric fences may be combined and implemented on exposed/disturbed/bare surfaces as appropriate to prevent or minimize sediment transport and delivery to surface waters. Non-invasive, non-persistent grass species (e.g. barley grass) may be used for their temporary erosion control benefits to stabilize bare slopes and prevent exposure of bare soils to rainfall. If utilized, straw mulch shall be applied at a rate of 2 tons per acre of exposed soils and, if warranted by site conditions, shall be secured to the ground. Consultation with a qualified professional is recommended for successful site-specific selection and implementation of such surface treatments. Guidance literature pertaining to such BMPs is referenced in section IV. of this document.
72. Road surfacing, especially within a segment leading to a watercourse, is critical to prevent and minimize sediment delivery to a watercourse and maintain road integrity for expected uses. Road surfacing can include pavement, chip-seal, lignin, rock, or other material appropriate for timing and nature of use. Steeper sections of road require higher quality rock (e.g. crushed angular versus river-run) to remain in place.

73. Road shaping to optimize drainage includes out-sloping and crowning; shaping can minimize reliance on inside ditches. Drainage structures can include rolling dips and water bars within the road surface and ditch-relief culverts to drain inside ditches. Adequate spacing of drainage structures is critical to reduce erosion associated with runoff. Generally speaking, steep slopes require greater frequency of drainage structures. The drainage structures shall be maintained to ensure capture of and capacity for expected flow. The outlets of the structures shall be placed in such a manner as to avoid discharge onto fill, unstable areas, or areas that can enter a watercourse. If site conditions prohibit drainage structures at an adequate interval to avoid erosion, bioengineering techniques[2] are the preferred solution (e.g. live fascines), but other techniques may also be appropriate including armoring (i.e. rock of adequate size and depth to remain in place under traffic and flow conditions) and velocity dissipaters (e.g. gravel-filled "pillows" in an inside ditch to trap sediment). In the case that inside ditches need maintenance, grade ditches only when and where necessary, since frequent routine mechanical grading can cause erosion of the ditch, undermine banks, and expose the toe of the cutslope to erosion. Do not remove more leaves and vegetation than necessary to keep water moving, as vegetation prevents scour and filters out sediment.
74. Road drainage shall be discharged to a stable location away from a watercourse. Use sediment control devices, such as check dams, sand/gravel bag barriers, and other acceptable techniques, when it is neither practical nor environmentally sound to disperse ditch water immediately before the ditch reaches a stream. Within areas with potential to discharge to a watercourse (i.e. within riparian areas of at least 200 feet of a stream) road surface drainage shall be filtered through vegetation, slash, or other appropriate material or settled into a depression with an outlet with adequate drainage. Caution should always be exercised with catchment basins in the event of failure.
75. Any spoils associated with site maintenance shall be placed in a stable location where it cannot enter a watercourse. Sidecasting shall be minimized and shall be avoided on unstable areas or where it has the potential to enter a watercourse.
76. Do not sidecast when the material can enter the stream directly or indirectly as sediment. Sidecast material can indirectly enter the stream when placed in a position where rain or road runoff can later deliver it to a channel that connects with the stream.
77. Disconnect road drainage from watercourses (drain to hill slopes), install drainage structures at intervals to prevent erosion of the inboard ditch or gull formation at the hill slope outfall, outslope roads.

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[2] A Primer on Stream and River Protection for the Regulator and Program Manager: Technical Reference Circulare W.D. 02-#1, San Francisco Bay Region, California Regional Water Quality Control Board (April 2003) http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stream_wetland/streamprotectioncircular.pdf

78. Ditch-relief culverts shall also be inspected regularly, and cleared of debris and sediment. To reduce plugging, 15 to 24-inch diameter pipes shall be the minimum size considered for ditch relief culverts and shall be informed by site-specific conditions.
79. Grade ditches only when and where necessary, since frequent routine mechanical grading can cause erosion of the ditch, undermine banks, and expose the toe of the cutslope to erosion. Do not remove more grass and weeds than necessary to keep water moving, as vegetation prevents scour and filters out sediment.
80. Use sediment control devices, such as check dams, sand/gravel bag barriers, and other acceptable techniques, when it is neither practical nor environmentally sound to disperse ditch water immediately before the ditch reaches a stream.

B. Stream Crossing Maintenance

81. Proper maintenance of stream crossings is critical to ensure support of beneficial uses of water. Regular inspection and maintenance is necessary to identify, in a timely manner, if problems are occurring. Crossings include rock fords[3], armored fills with culverts[3], and bridges[3].
82. Rock fords are appropriate when temporary and minor moisture or over-land flow is expected, not typically when a bed and bank is present; exceptions may be justified if warranted by site specific conditions. Additionally, rock fords are appropriate if aquatic life is not present. An adequate layer of crushed angular rock shall be maintained at rock fords such that soil compaction is minimized under expected traffic levels.
83. Stream crossings consisting of armored fills with culverts and bridges are appropriate for streams with defined bed and bank[2]. They shall be sized to ensure the 100-year streamflow event can pass unimpeded. Additionally, crossings shall allow migration of aquatic life during all life stages potentially supported by that stream reach; water depth and velocity can inhibit migration of adult and juvenile fish species.
84. Stream crossing design and installation is best accomplished with the assistance of a qualified professional. Site conditions can change over time (e.g. channel filling or incision); consultation with a qualified professional is appropriate to evaluate maintenance or replacement needs and opportunities.
85. Regular inspection of the stream crossing is appropriate to identify changed conditions within the stream channel (e.g., bank erosion, headward incision, and channel filling).
    - If large wood is accumulated upstream or within the crossing that could impede or deflect flow and result in erosion or debris capture, the wood

[3] Explanation of term, available within the following document (as of the date of the Order): http://www.pacificwatershed.com/sites/default/files/handbook_chapter_download_page.pdf

should generally be removed. In some cases, it may be appropriate to re-orient debris with the streamflow.

- If sediment or debris is accumulated within a culvert and limits flow capacity, the short term solution should generally be to clean out the culvert and place the debris and sediment in a stable location with no potential to discharge into a stream. In some cases a trash rack, post, or other deflection structure at the culvert inlet can reduce plugging.
- If sediment is accumulated in a culvert without other debris accumulation and limits flow capacity, the long term solution may generally involve changing the culvert's slope, diameter, or embedment in the streambed.

86. The roadway adjacent to and over the crossing is an area of potential discharge. All road surfaces approaching a crossing shall be drained before the crossing, adequately filtered through vegetation or other material, and not discharged to a watercourse. If turbid water is discharged at a stream crossing, additional measures to control erosion at the source(s) or to remove sediment prior to discharge shall be implemented. Road surfaces shall be of rock, pavement, or other material appropriate for type and level of use.
87. If a culvert is used, the approaches and fill slopes shall be properly compacted during installation and shall be stabilized with rock or other appropriate surface protection to minimize surface erosion and slumping to the receiving waters. If possible, the road surface over the culvert shall have a critical-dip to ensure that if the culvert becomes plugged, water can flow over the road surface without washing away the fill prism. If site-specific conditions do not allow for a critical dip, alternatives such as emergency overflow culverts, oversized culvers, flared inlets, and debris racks may be warranted.

C. Riparian and Wetland Protection and Management:

88. Buffer width will be in compliance with Tier category.
89. Trees within riparian areas shall be retained for natural recruitment to streams. Large woody debris (LWD) shall be retained in stream or within riparian areas. The size of wood that can be beneficial to the stream will vary depending on the size of the stream (i.e., larger pieces of wood are necessary to withstand flows in large streams). In the event that LWD or trees are disturbed during excavation, care shall be taken to separate the LWD from soil. The pieces shall be stockpiled separately until they can be replaced in appropriate locations to enhance instream or riparian conditions. Placement of instream wood for habitat enhancement should be done under the consultation of a qualified professional and in conformance with applicable regulatory permits.
90. Avoidance of disturbance in riparian areas (within 200 feet of a watercourse) should result in protection and restoration of the quality/health of the riparian stand so as to promote: 1) shade and microclimate controls; 2) delivery of wood to channels, 3) slope stability and erosion control, 4) ground cover, and 5) removal of excess nutrients. This recognizes the importance of the riparian zone

with respect to temperature protection, sediment delivery, its importance with respect to the potential for recruitment of large wood, and removal of nutrients transported in runoff. In the event that past disturbance has degraded riparian conditions, replanting with native species capable of establishing a multi-storied canopy will ensure these riparian areas can perform these important ecologic functions.

D. Spoils Management

To ensure spoil pile stability and to reduce the potential for spoil pile slope failure or transport to waters of the state, the following measures shall be implemented when placing or disposing of spoils onsite:

91. Rip compacted soils prior to placing spoils to prevent the potential for ponding under the spoils that could result in spoil site failure and subsequent sedimentation;
92. Compact and contour stored spoils to mimic the natural slope contours and drainage patterns to reduce the potential for fill saturation and failure;
93. Ensure that spoil materials are free of woody debris, and not placed on top of brush, logs or trees.
94. Spoils shall not be placed or stored in locations where soils are wet or unstable, or where slope stability could be adversely affected.
95. Do not locate spoil piles in or immediately adjacent to wetlands and watercourses.
96. Store spoil piles in a manner (e.g. cover pile with plastic tarps and surround base of pile with straw wattle) or location that would not result in any runoff from the spoil pile ending up in wetlands and watercourses.
97. Separate organic material (e.g., roots, stumps) from the dirt fill and store separately. Place this material in long-term, upland storage sites, as it cannot be used for fill.
98. Keep temporary disposal sites out of wetlands, adjacent riparian corridors, and ordinary high water areas as well as high risk zones, such as 100-year floodplain and unstable slopes.
99. After placement of the soil layer, track walk the slopes perpendicular to the contour to stabilize the soil until vegetation is established. Track walking creates indentations that trap seed and decrease erosion of the reclaimed surfaces.
100. Revegetate the disposal site with a mix of native plant species. Cover the seeded and planted areas with mulched straw at a rate of 2 tons per acre. Apply jute netting or similar erosion control fabric on slopes greater than 2:1 if site is erosive.

E. Water Storage and Use

WATER USE

101. Conduct operations on a size and scale that considers available water sources and other water use and users in the planning watershed.
102. Implement water conservation measures such as rainwater catchment systems, drip irrigation, mulching, or irrigation water recycling. (Also see BMPs for Irrigation, below)
103. Take measures to minimize water diversion during low flow periods.
104. Options for documentation of water diversions and/or water usage may include the use of water meter devices and date-stamped photographs of water meter readings.
105. Hauled water utilized for irrigation shall be documented via receipt or similar, and show the date, name, and license plate of the water hauler, and the quantity of water purchased.
106. Apply water at agronomic rates (do not overwater plants).

WATER STORAGE

107. If using a water storage tank, do not locate the tank in a flood plain or next to equipment that generates heat. Locate the tank so it is easy to install, access, and maintain.

108. Vertical tanks should be installed according to manufacturer's specifications and placed on firm, compacted soil that is free of rocks/sharp objects and capable of bearing the weight of the tank and its maximum contents. In addition, a sand or pea gravel base with provisions for preventing erosion is highly recommended. Installation sites for tanks 8,000 gallons or more must be on a reinforced concrete pad providing adequate support and enough space to attach a tank restraint system (anchor using the molded-in tie down lugs with moderate tension, being careful not to over-tighten), especially where seismic or large wind forces are present.

109. Horizontal tanks shall be secured with bands and/or hoops to prevent tank movement.
110. Design and construct storage ponds in properly sited locations, off-stream. Plant vegetation along the perimeter of the pond. Construct berms or excess freeboard space around the perimeter of the pond to allow for sheet flow inputs.
111. Provide adequate outlet drainage for overflow of ponds, including low impact designs, to promote dispersal and infiltration of flows.
112. Place proper lining or sealing in ponds to prevent water loss.

113. Storage bladders are not encouraged for long term water storage reliability. If they are utilized, ensure that they are designed to store water, and that they are sited to minimize potential for water to flow into a watercourse in the event of a catastrophic failure. Used bladders (e.g. military surplus bladders) shall be checked for interior residual chemicals and integrity prior to use. Inspect bladder and containment features periodically to ensure integrity.

F. Irrigation Runoff

114. Irrigate at rates to avoid or minimize runoff.
115. Regularly inspect for leaks in mains and laterals, in irrigation connections, or at the ends of drip tape and feeder lines. Repair any found leaks.
116. Design irrigation system to include redundancy (i.e., safety valves) in the event that leaks occur, so that waste of water is prevented and minimized.
117. Recapture and reuse irrigation runoff (tailwater) where possible, through passive (gravity-fed) or active (pumped) means.
118. Construct retention basins for tailwater infiltration; percolation medium may be used to reduce pollutant concentration in infiltrated water. Constructed treatment wetlands may also be effective at reducing nutrient loads in water. Ensure that drainage and/or infiltration areas are located away from unstable or potentially unstable features.
119. Regularly replace worn, outdated or inefficient irrigation system components and equipment.
120. Use mulches (e.g. wood chips or bark) in cultivation areas that do not have ground cover to prevent erosion and minimize evaporative loss.
121. Leave a vegetative barrier along the property boundary and interior watercourses to act as a pollutant filter.
122. Employ rain-triggered shutoff devices to prevent irrigation after precipitation.

G. Fertilizers, Soil Amendments, Pesticides, Petroleum Products, and Other Chemicals

123. Evaluate irrigation water, soils, growth media, and plant tissue to optimize plant growth and avoid over-fertilization.
124. Reference Department of Pesticide Regulations Guidance (see Attachments E-1 and E-2 of Order No. R1-2015-0023)
125. All chemicals shall be stored in a manner, method, and location that ensures that there is no threat of discharge to waters of the state.
126. Products shall be labeled properly and applied according to the label.
127. Use integrated pest management strategies that apply pesticides only to the area of need, only when there is an economic benefit to the grower, and at times when runoff losses are least likely, including losses of organic matter from dead plant material.

128. Periodically calibrate pesticide application equipment.
129. Use anti-backflow devices on water supply hoses, and other mixing/loading practices designed to reduce the risk of runoff and spills.
130. Petroleum products shall be stored with a secondary containment system.
131. Throughout the rainy season, any temporary containment facility shall have a permanent cover and side-wind protection, or be covered during non-working days and prior to and during rain events.
132. Materials shall be stored in their original containers and the original product labels shall be maintained in place in a legible condition. Damaged or otherwise illegible labels shall be replaced immediately.
133. Bagged and boxed materials shall be stored on pallets and shall not be allowed to accumulate on the ground. To provide protection from wind and rain throughout the rainy season, bagged and boxed materials shall be covered during non-working days and prior to rain events.
134. Have proper storage instructions posted at all times in an open and conspicuous location.
135. Prepare and keep onsite a Spill Prevention, Countermeasures, and Cleanup Plan (SPCC Plan) if applicable[4].
136. Keep ample supply of appropriate spill clean-up material near storage areas.

H. Cultivation-Related Wastes

137. Cultivation-related waste shall be stored in a place where it will not enter a stream. Soil bags and other garbage shall be collected, contained, and disposed of at an appropriate facility, including for recycling where available. Pots shall be collected and stored where they will not enter a waterway or create a nuisance. Plant waste and other compostable materials be stored (or composted, as applicable) 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.
138. Imported soil for cultivation purposes shall be minimized. The impacts associated with importation of soil include, but are not limited to increased road maintenance and the increased need for spoils management. Use of compost increases the humic acid content and water retention capacity of soils while reducing the need for fertilizer application. In the event that containers (e.g. grow bags or grow pots) are used for cultivation, reuse of soil shall be maximized to the extent feasible.

[4] SPCC plans are required for over 1,320 gallons of petroleum stored aboveground or 42,000 gallons below ground. Additionally, any type of storage container requires an SPCC if it is larger than 20,000 gallons, or if the cumulative storage capacity on-site exceeds 100,000 gallons (Health and Safety Code section 25270-25270.13) A sample SPCC can be found here: http://www.calcupa.net/civica/filebank/blobdload.asp?BlobID=3186

139. Spent growth medium (i.e. soil and other organic medium) shall be handled to minimize discharge of soil and residual nutrients and chemicals to watercourses. Proper handling of spent soil could include incorporating into garden beds, spreading on a stable surface and revegetation, storage in watertight dumpsters, covering with tarps or plastic sheeting prior to proper disposal, and use of techniques to reduce polluted runoff described under Item F. Irrigation Runoff.
140. Other means of handling cultivation-related waste may be considered on a site-specific basis.

I. Refuse and Human Waste

141. Trash containers of sufficient size and number shall be provided and properly serviced to contain the solid waste generated by the project. Provide roofs, awnings, or attached lids on all trash containers to minimize direct precipitation and prevent rainfall from entering containers. Use lined bins or dumpsters to reduce leaking of liquid waste. Design trash container areas so that drainage from adjoining roofs and pavement is diverted around the area(s) to avoid run-on. This might include berming or grading the waste handling area to prevent run-on of stormwater. Make sure trash container areas are screened or walled to prevent off-site transport of trash. Consider using refuse containers that are bear-proof and/or secure from wildlife. Refuse shall be removed from the site on a frequency that does not result in nuisance conditions, transported in a manner that they remain contained during transport, and the contents shall be disposed of properly at a proper disposal facility.
142. Ensure that human waste disposal systems do not pose a threat to surface or ground water quality or create a nuisance. Onsite treatment systems should follow applicable County ordinances for human waste disposal requirements, consistent with the applicable tier under the State Water Resources Control Board Onsite Waste Treatment System Policy[5].

[5] Available at: http://www.waterboards.ca.gov/water_issues/programs/owts/docs/owts_policy.pdf (as of the date of the Order).

IV. References

Handbook for Forest, Ranch, & Rural Roads: A Guide for Planning, Designing, Constructing, Reconstructing, Upgrading, Maintaining, and Closing Wildland Roads
http://www.pacificwatershed.com/sites/default/files/handbook_chapter_download_page.pdf

A Water Quality and Stream Habitat Protection Manual for County Road Maintenance in Northwestern California Watersheds
http://www.5counties.org/roadmanual.htm

Construction Site BMP Fact Sheets
http://www.dot.ca.gov/hq/construc/stormwater/factsheets.htm

EPA Riparian/Forested Buffer
http://water.epa.gov/polwaste/npdes/swbmp/Riparian-Forested-Buffer.cfm

Creating Effective Local Riparian Buffer Ordinances
http://www.rivercenter.uga.edu/publications/pdf/riparian_buffer_guidebook.pdf

How to Install Residential Scale Best Management Practices (BMPs) in the Lake Tahoe Basin
http://www.tahoebmp.org/Documents/Contractors%20BMP%20Manual.pdf

Spoil Pile BMPs
http://michigan.gov/documents/deq/deq-wb-nps-sp_250905_7.pdf

Sanctuary Forest Water Storage Guide
http://agwaterstewards.org/images/uploads/docs/1213661598_Water_Storage_Guide.pdf

Natural Resources Conservation Service-USDA, "Ponds – Planning, Design, Construction", Agriculture Handbook
http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_030362.pdf

Division of Safety of Dams size requirements
http://www.water.ca.gov/damsafety/jurischart/

Water Tanks: Guidelines for Installation and Use
http://dnn7.snydernet.com/_pdf/_septic/Septic%20Catalog%202010.pdf

BEST MANAGEMENT PRACTICES (BMP's) University of California Cooperative Extension
http://www.waterboards.ca.gov/sandiego/water_issues/programs/wine_country/docs/updates081910/ucce_bmps.pdf

California Stormwater Quality Association
Section 4: Source Control BMPs
https://www.casqa.org/sites/default/files/BMPHandbooks/sd-12.pdf

CA DOT Solid Waste Management Plan
http://www.dot.ca.gov/hq/construc/stormwater/WM-05.pdf

State Water Resources Control Board Onsite Wastewater Treatment System (OWTS) policy
http://www.waterboards.ca.gov/water_issues/programs/owts/docs/owts_policy.pdf

California Stormwater Quality Association
Section 4: Source Control BMPs
https://www.casqa.org/sites/default/files/BMPHandbooks/sd-32.pdf

California Riparian Habitat Restoration Handbook
http://www.conservation.ca.gov/dlrp/watershedportal/InformationResources/Documents/Restoration_Handbook_Final_Dec09.pdf

The Practical Streambank Bioengineering Guide
http://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/idpmcpu116.pdf

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Appendix B

Monitoring Plan and Photo Log

APPENDIX B: MONITORING PLAN AND PHOTO LOGS

Monitoring Plan – In general, the entire road network, cultivation area and associated facilities need to be monitored throughout the year to identify any problems that might arise and to monitor the effectiveness of corrective actions (Table 1) when completed. Refer to Figure 2 for the specific locations of monitoring points that you are responsible for tracking. Regardless, the entire project site needs to be monitored to ensure that the site achieves and maintains compliance with the 12 Standard Conditions.

For this project site, seven monitoring points have been designated on the site. Monitoring points (MP) have been established at two water sources, spoils piles that require winterization, fertilizer and chemical storage areas, fuel storage areas, and cultivation-related waste storage areas. The site also has a monitoring point for the existing outhouse.

The goal of the monitoring is to ensure the original problem/feature has been effectively treated and that the causal mechanisms (undersized culverts, improperly stored fuels, etc.) are not continuing to threaten or cause water quality degradation. Consult with PWA if a problem is detected at any of these monitoring locations or elsewhere on the property, or if you would like our assistance in monitoring or developing corrective actions (BMPs) for problems that develop. If additional deficiencies develop, or individual problems arise, then corrective actions must be implemented immediately and these problem areas will be further monitored according to the WRPP. Please document and report to PWA when one or more of the corrective actions in the WRPP have been implemented, and include photos and descriptions of the actions taken.

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 on-site.
2) Prior to October 15 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.

Photo Log of features of interest and monitoring points before, during, and/or after treatment					
Photo #	**Monitoring Point**	**Feature**	**Date**	**Pre-, during, or post-treatment**	**Description**
1	-	Quad Trail	5/6/17	Pre-treatment	Surface erosion on a steep section of the Quad Trail.
2	-	Driveway	5/6/17	Pre-treatment	Gravel driveway off Conklin Creek Road near residence.
3	MP #1	POD	5/6/17	Pre-treatment	Roberts Spring Box
4	MP #1	POD	5/6/17	Pre-treatment	Waterline at intake from Roberts Spring Box on APN 105-111-016.
5	MP #2	POD	5/6/17	Pre-treatment	The well house on APN 105-111-017.
6	-	Water Conservation	5/6/17	Pre-treatment	Drip irrigation system in greenhouses.
7	-	Water Storage	5/6/17	Pre-treatment	1,500-gallon water storage tank near Greenhouse #1.
8	-	Nutrient Storage	5/6/17	Pre-treatment	Spent soil securely tarped during the rainy season.
9	MP #4	Nutrient Storage	5/6/17	Pre-treatment	Nutrients and cultivation-related materials storage at covered area at the shed/nursery building
10	-	Nutrient Storage	5/6/17	Pre-treatment	Pots are covered during the rainy season and spent soil is tarped.

Photo Log of features of interest and monitoring points before, during, and/or after treatment					
Photo #	**Monitoring Point**	**Feature**	**Date**	**Pre-, during, or post-treatment**	**Description**
11	-	Nutrient Storage	5/6/17	Pre-treatment	Cloning hormones are kept on a shelf under the overhang of the storage/shed/nursery building.
12	MP #3	Nutrient Storage	5/6/17	Pre-treatment	300-gal mixing tank and liquid nutrients stored near Cultivation Area #1. Liquid nutrients should be stored covered and off the ground to prevent potential leaching into groundwater.
13	MP #4	Fuel Storage	5/6/17	Pre-treatment	5-gallon gasoline container stored w/o secondary containment near residence.
14	MP #5	Fuel Storage	5/6/17	Pre-treatment	5-gallon gasoline container stored under overhang of shed/storage/nursery building.
15	-	Cultivation waste	5/6/17	Pre-treatment	Cultivation-related waste stored securely outside the mobile home.
16	MP #6	Cultivation waste	5/6/17	Pre-treatment	Brush pile and compost pile located north of vegetable garden.
17	MP #7	Human Waste	5/6/17	Pre-treatment	Outhouse north of motor home and tent.

Photo Log of features of interest and monitoring points before, during, and/or after treatment					
Photo #	**Monitoring Point**	**Feature**	**Date**	**Pre-, during, or post-treatment**	**Description**

Appendix C

Photo Documentation of Monitoring Points

APPENDIX C: PHOTO DOCUMENTATION OF MONITORING POINTS AND FEATURES OF INTEREST

Photo 1 – Surface erosion on a steep section of the Quad Trail.

Photo 2 – Gravel driveway off Conklin Creek Road near residence.

Photo 3; MP #1 – Roberts Spring Box

Photo 4; MP #1 –Waterline at intake from Roberts Spring Box on APN 105-111-016.

Photo 5; MP #2 – The well house on APN 105-111-017.

Photo 6 – Drip irrigation system in greenhouses.

Photo 7 – 1,500-gallon water storage tank near Greenhouse #1.

Photo 8 – Spent soil securely tarped during the rainy season.

Photo 9 – MP #5, Nutrients and cultivation-related materials storage at covered area at the shed/nursery

Photo 10 – Pots are covered during the rainy season and spent soil is tarped.

Photo 11 – Cloning hormones are kept on a shelf under the overhang of the storage/shed/nursery building.

Photo 12; MP #3 – 300-gal mixing tank and liquid nutrients stored near Cultivation Area #1. Liquid nutrients should be stored off the ground to preclude potential leaching into groundwater.

Photo 13; MP #4 – 5-gallon gasoline container stored w/o secondary containment near residence

Photo 14; MP #5 – 5-gallon gasoline container stored under overhang of shed/storage/nursery building.

Photo 15 - Cultivation-related waste stored securely outside the mobile home.

Photo 16; MP #6 – Brush pile and compost pile located north of vegetable garden.

Photo 17; MP #7 – Outhouse north of motor home and tent.

Appendix D

PWA Water Log Sheets

Total Surface Water Diversion
- Log Sheet -

WD ID:	PWA ID:	Watershed:
Location:	Sheet ___ of ___	Year:

Water Diversion Source (e.g., stream, in-stream pond, spring, etc.)	Water unit (gallons or acre feet)	Amount diverted per month (gallons or acre feet)											
		January	February	March	April	May	June	July	August	September	October	November	December
Monthly Totals													

Comments:

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Water Input to Storage
- Log Sheet -

	WD ID:	PWA ID:	Watershed:
Location:		Sheet ___ of ___	Year:

Water Source (e.g., rainwater catchment, stream diversion, spring diversion, well, water delivery, etc.)	Water unit (gallons or acre feet)	Amount input to storage per month (gallons or acre feet), by source											
		January	February	March	April	May	June	July	August	September	October	November	December
Monthly Totals													

Comments: As per NCRWQCB: "Report water volume input to storage, listing each source separately. This may include inputs from rainfall catchment, surface water diversions

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Water Use by Source - Log Sheet -

	WD ID:	PWA ID:	Watershed:
Location:		Sheet ___ of ___	Year:

Water Source *(tank, bladder, pond, well, delivered, other)*	Water unit (gallons or acre feet)	Amount utilized from storage per month (gallons or acre feet), by type											
		January	February	March	April	May	June	July	August	Sept	October	November	December
Monthly Totals													

Comments: As per NCRWQCB: "Report water volume used, listing each source separately. This may include use of stored water, immediate use of pumped groundwater, diverted surface water, or delivered water. If water is delivered, list delivery date, delivery volume, and name and address of water purveyor"

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Appendix E

PWA Fertilizer-Amendment Log Sheets

Fertilizer and Amendment Application Log Sheet

WD ID:	PWA ID:	Watershed:
	Year:	Sheet #: _____of _____

Product name	Fertilizer or Ammendment (circle one)	Type (circle type)	Nutrient content (N-P-K ratio)	Recommended application amount from product label (e.g. # of ounces per application)	Application units (grams, ounces, liters, gallons, etc.)	Recommended application schedule (daily, weekly, etc.)	Actual amount applied in this application (same units)	Date applied (Mo/Day)	Location (Cultivation area #, Greenhouse #, Hoophouse #, etc.)	Initials	Comments
	Fert./Amend.	liquid/solid									
	Fert./Amend.	liquid/solid									
	Fert./Amend.	liquid/solid									
	Fert./Amend.	liquid/solid									
	Fert./Amend.	liquid/solid									
	Fert./Amend.	liquid/solid									
	Fert./Amend.	liquid/solid									
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	Fert./Amend.	liquid/solid									
	Fert./Amend.	liquid/solid									

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Appendix F

PWA Pesticide-Herbicide Log Sheets
Legal Pest Management Practices

Pesticide and Herbicide Application Log Sheet

WD ID:	PWA ID:	Watershed:

Location: | Year: | Sheet #: _____of _____

Product name	Pesticide or Herbicide (circle one)	Product type (circle type)	Recommended application amount from product label (e.g. # of ounces per application)	Application units (grams, ounces, liters, gallons, etc.)	Recommended application schedule (daily, weekly, etc.)	Actual amount (in same units) used per application	Date applied (mo/day)	Initials	Comments
	Pest./Herb.	liquid/solid							
	Pest./Herb.	liquid/solid							
	Pest./Herb.	liquid/solid							
	Pest./Herb.	liquid/solid							
	Pest./Herb.	liquid/solid							
	Pest./Herb.	liquid/solid							
	Pest./Herb.	liquid/solid							
	Pest./Herb.	liquid/solid							
	Pest./Herb.	liquid/solid							
	Pest./Herb.	liquid/solid							

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LEGAL PEST MANAGEMENT PRACTICES FOR MARIJUANA GROWERS IN CALIFORNIA

PESTS OF MARIJUANA IN CALIFORNIA

Marijuana pests vary according to cultivar (variety), whether the plants are grown indoors or outdoors, and where the plants are grown geographically. The pests included in this review are based on two sources: a presentation given in 2013 by Whitney Cranshaw, an extension entomologist at Colorado State University, and a review article by John M. McPartland, a professor of family medicine at the University of Vermont.

HOW TO INTERPRET THE TABLES

Table 1 lists active ingredients not illegal to use on marijuana and the pests that these active ingredients target.

These active ingredients are exempt from **residue tolerance requirements**[1] *and* either exempt from **registration requirements**[2] or registered for a use that's broad enough to include use on marijuana. Residue tolerance requirements are set by U.S. EPA for each pesticide on each food crop and is the amount of pesticide residue allowed to remain in or on each treated crop with "reasonable certainty of no harm." Some pesticides are exempted from the tolerance requirement when they're found to be safe. Some of these pesticides are bacterial-based insect pathogens (e.g., *Bacillus thuringiensis*) or biofungicides (e.g., *Bacillus subtilis*, *Gliocladium virens*).

Active ingredients exempt from registration requirements are mostly food-grade essential oils such as peppermint oil or rosemary oil.

Tables 2 and 3 list pests of marijuana grown outdoors and indoors, and **Table 3** shows pests arranged by the portion of the plant they attack. An explanation of the column labels for Tables 2 and 3 follow.

PESTS. The tables show the most likely pests in California based on Cranshaw's presentation and McPartland's list and gleaned from California-based web sites and blogs. Some pests that drew attention on several blogs (e.g., hemp russet mite) may be worse during drought years. Many have cyclic population fluctuations and others are mainstays of general greenhouse cultivation (e.g., whiteflies, thrips, and fungus gnats). We'll add weeds to this compendium when we have more information.

DAMAGE. For damage caused by greenhouse pests, we derived information from Cranshaw's presentation; for that of outdoor pests when there wasn't any overlap, McPartland's list was used and information from UC IPM for various crops. Accounts of damage by rodents is anecdotal.

IPM PRACTICES. Most of these are standard practices for pests on hosts other than marijuana. For more detailed explanations, see information compiled by the University of California Statewide IPM Program (UC IPM) at www.ipm.ucdavis.edu. You can enter a pest name in the search box (e.g., cutworm) and read about IPM practices for the pest on crops other than marijuana. For marijuana grown indoors, go to the UC IPM home page, click on Agricultural Pests and scroll down the alphabetical list until you reach ornamental nurseries.

Some practices were excluded because they apply to nearly all of the pests. For example, when targeting aphids, whiteflies, and thrips, growers can attract predaceous and parasitic arthropods by planting cover crops (e.g., California buckwheat) and insectary plants—especially those in the carrot, mustard, and sunflower families.

LEGAL PESTICIDES. These are covered above in the Table 1 description and are exempt from **residue tolerance requirements** *and* either exempt from **registration requirements** or registered for a use that is broad enough to include use on marijuana.

Table 4 shows marijuana pests by plant part. Not all of these pests are important, but their collective damage may affect the overall health of the plant.

REFERENCES

Cranshaw, Whitney. 2013. Challenges and opportunities for pest management of medical marijuana in Colorado. Presentation.

McPartland, J.M. 1996. *Cannabis* pests. J. Internatl. Hemp Assoc. 3(2): 49, 52–55.

[1] 40 CFR (Code of Federal Regulations)
[2] under FIFRA section 25(b) and 3 CCR section 6147

Table 1. Active ingredients that are exempt from residue tolerance requirements[a] and either exempt from registration requirements[b] or registered for a use broad enough to include use on marijuana.

ACTIVE INGREDIENT	PEST OR DISEASE
azadirachtin[a]	aphids, whiteflies, fungus gnats, leafminers, cutworms
Bacillus subtilis QST[a1]	root diseases, powdery mildew
Bacillus thuringiensis[a2] subsp. *aizawai* or *kurstaki*	moth larvae (e.g., cutworms, budworms, hemp borer)
Bacillus thuringiensis[a2] subsp. *israelensis*	fly larvae (e.g., fungus gnats)
Beauveria bassiana[a3]	whiteflies, aphids, thrips
cinnamon oil[b]	whiteflies
Gliocladium virens[a1]	root diseases
horticultural oils[a] (petroleum oil)	mites, aphids, whiteflies, thrips; powdery mildew
insecticidal soaps[a] (potassium salts of fatty acids)	aphids, whiteflies, cutworms, budworms
iron phosphate[a]; sodium ferric EDTA[a]	slugs and snails
neem oil[a]	mites; powdery mildew
potassium bicarbonate[a]; sodium bicarbonate[a]	powdery mildew
predatory nematodes[a]	fungus gnats
rosemary + peppermint essential oils[b]	whiteflies
sulfur[a]	mites, hemp flea beetles
Trichoderma harzianum[a1]	root diseases

[a] 40 CFR (Code of Federal Regulations)

[b] FIFRA §25(b) and 3 CCR §6147 [FIFRA = the Federal Insecticide, Fungicide, and Rodenticide Act; CCR = California Code of Regulations]

[1] Biofungicides

[2] Bacterial-based insect pathogen

[3] Fungal-based insect pathogen

Table 2. PEST MANAGEMENT PRACTICES FOR MARIJUANA GROWN OUTDOORS

PEST	DAMAGE	IPM PRACTICES (monitoring; cultural, physical, mechanical, biological)	PESTICIDES
MITES & INSECTS			
two-spotted spider mites *Tetranychus urticae*	Suck plant sap; stipple **leaves**	▪ Keep dust down by hosing off plants (if dust is a problem) ▪ Release predatory mites	neem oil, horticultural oil, sulfur
hemp russet mites *Aculops cannabicola*	Suck plant sap; kill **leaves** and **flowers**	▪ Release predatory mites	neem oil, horticultural oil, sulfur
crickets (field & house) *Gryllus desertus, G. chinensis, Acheta domesticus*	Eat **seedlings**	▪ Use floating row covers or cones on individual plants	—
termites	Eat **roots**	▪ Flood nests	—
leafhoppers	Suck plant sap; weaken plants	▪ Encourage natural enemies by planting nectar sources	horticultural oil or insecticidal soaps for nymphs
aphids *Phorodon cannabis, Myzus persicae, Aphis fabae*	Suck plant sap; weaken plants *P. cannabis* (bhang aphid) vectors tobacco mosaic virus	▪ Hang up yellow sticky cards (alates) ▪ Hose off plants	azadirachtin, horticultural oil, insecticidal soaps, *Beauveria bassiana*
whiteflies *Trialeurodes vaporariorum, Bemisia tabaci, B. argentifolii*	Suck plant sap; weaken plants	▪ Hang up yellow sticky cards ▪ Reflective plastic mulch	azadirachtin, horticultural oil, insecticidal soaps, rosemary + peppermint oils, *Beauveria bassiana*
leafminers *Liriomyza* spp.	Bore into **roots** and **leaves**	▪ Remove older infested leaves ▪ Use biocontrol: release *Diglyphus* parasitoids	azadirachtin

PEST		DAMAGE	IPM PRACTICES (monitoring; cultural, physical, mechanical, biological)	PESTICIDES
LEPIDOPTERA	**cutworms** *Agrotis ipsilon, A. segetum, Spodoptera litura, S. exigua, Mamestra brassicae* (Noctuidae)	Eat **seedlings**	▪ Use pheromone traps to detect adults. ▪ Remove weeds, which serve as a reservoir for cutworms and other noctuids	Vegetative stage only: Use *Bacillus thuringiensis kurstaki* if egg-laying adults found, insecticidal soap; azadirachtin
	budworms *Helicoverpa armigera, H. zea* (Noctuidae)	Eat flowering **buds**	▪ Shake plants to dislodge larvae ▪ Remove infested buds ▪ Plant corn as trap crop	Vegetative stage only: Use *Bacillus thuringiensis kurstaki,* insecticidal soap
	hemp borers (= hemp moth) *Grapholita delineana* (Tortricidae)	Bore through **stalks** (caterpillars)	▪ Plow crop under in fall; remove plants still standing; remove nearby hemp and hop plants ▪ Use light traps at night for monitoring ▪ Use biocontrol: *Trichogramma*	*Bacillus thuringiensis kurstaki*
COLEOPTERA	**hemp flea beetles** *Psylliodes attenuata* (Chrysomelidae)	Bore into **stems** (grubs); feed on seedlings and **leaves** of larger plants (beetles)	▪ Use reflective mulches ▪ Plant trap crops (e.g., radish or Chinese mustard)	sulfur
	scarab grubs (possibly other beetles)	Bore into **stems**	▪ Use parasitic nematodes	—
MAMMALS				
mice (e.g., house mice)		Eat **young sprouts** and **seeds**	▪ Double wrap a 3'-tall chicken wire fence around plants ▪ Trap (minus rodenticides) ▪ Mount barn owl boxes	Rodenticides (see footnote below)
roof rats, *Rattus rattus* **wood rats**, *Neotoma* spp.		Strip bark from **stems** to build nests		
pocket gophers, *Thomomys* spp.		Tunnel through planting areas; feed on plants; gnaw on irrigation lines	▪ Install underground fencing (hardware cloth or ¾" mesh poultry wire) ▪ Mount barn owl boxes	
Columbian black-tailed deer, *Odocoileus hemionus columbianus*		Knock over plants; leave dander, droppings, and ticks behind	▪ Install deer fencing	—
black bears, *Ursus americana*		Knock over plants	▪ Install electric fencing	—

Rodenticides that are not DPR-restricted materials or federally restricted use pesticides *and* are registered for a broad enough use to include use in or around marijuana cultivation sites. If using a rodenticide always read and follow the label and check to make sure that the target rodent is listed. Second-generation anticoagulant products are DPR-restricted materials not labeled for field use and as such, should never be used in or around marijuana cultivation sites.

Table 3. PEST MANAGEMENT PRACTICES FOR MARIJUANA GROWN INDOORS
(e.g., greenhouses, sheds, and grow rooms)

PEST	DAMAGE	IPM PRACTICES (monitoring; cultural, physical, mechanical, biological)	PESTICIDES
DISEASES			
powdery mildew *Sphaerotheca macularis*	Grow on **leaves** as white and gray powdery patches	▪ Use fans to improve air circulation	horticultural oil; neem oil; sodium bicarbonate, potassium bicarbonate; *Bacillus subtilis*
pythium root rots *Pythium* spp.	Attack root tips and worsens when plants grow in wet soil	▪ Avoid hydroponic production or wet soil conditions	Incorporate biocontrol agents into root-growing media (e.g., *Gliocladium virens, Trichoderma harzianum, Bacillus subtilis*)
MITES & INSECTS			
two-spotted spider mite *Tetranychus urticae*	Suck plant sap; stipple **leaves**	▪ Disinfest cuttings before introducing to growing area ▪ Release predatory mites	neem oil, horticultural oil, sulfur
leafhoppers	Suck plant sap; weaken plants	▪ Encourage natural enemies by planting nectar sources	horticultural oil or insecticidal soaps for nymphs
whiteflies *Trialeurodes vaporariorum, Bemisia tabaci, B. argentifolii*	Suck plant sap; weaken plants	▪ Hang up yellow sticky cards ▪ Use biocontrol: *Encarsia formosa*	azadirachtin, *Beauveria bassiana*, cinnamon oil, horticultural oil
thrips *Heliothrips haemorrhoidalis, Frankliniella occidentalis, Thrips tabaci*	Stipple **leaves** and vector viruses	▪ Hang up yellow or blue sticky cards	
dark-winged fungus gnats (Diptera: Sciaridae) *Bradysia* spp.	Damage **roots** and stunt plant growth	▪ Avoid overwatering ▪ Use growing media that deters gnat development ▪ Hang up yellow sticky cards ▪ Use biocontrol: soil-dwelling predatory mites	*Bacillus thuringiensis israelensis* (BTI); predatory nematodes; azadirachtin soil drenches

Table 4. PESTS OF MARIJUANA BY PLANT PART

Seedlings	Flower & Leaf (grown outdoors)	Flower & Leaf (grown indoors)	Stalk & Stem	Root
cutworms	**hemp flea beetle**	**spider mites**	**hemp borer**	**hemp flea beetle**
birds	**hemp borer**	**aphids**	**rats**	**white root grubs**
hemp flea beetle	**budworms**	**whiteflies**		root maggots
crickets	**leafminers**	**thrips**		**termites** & ants
slugs		leafhoppers		**fungus gnats**
rodents				wireworms

Appendix G

Hazardous Materials Storage Guidelines

Appendix G

Hazardous Materials Storage Guidelines

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.

If you store more than 1,320 gallons of petroleum products above ground, and a spill could reach a waterway, a Petroleum Storage Spill Prevention, Control and Countermeasures (SPCC) Plan must be developed for the site (see the CA-EPA fact sheet: http://www.rivcoeh.org/Portals/0/documents/guidance/hazmat/FactSheetSPCC.pdf).

Proper storage of hazardous materials - Proper storage of hazardous materials (e.g., flammable liquids or gasses, many agricultural chemicals, oxidizers, acids, caustic substances) is essential for maintaining safe operations and for protection of the environment. Commercial operations that store hazardous materials are required to prepare a hazardous materials business plan (HMBP) and maintain Material Safety Data Sheets (MSDS) for each hazardous chemical that they store or use. County health agencies may require HMBPs to be submitted for their review. The HMBP information must be communicated to employees annually and be kept in a location that is readily accessible by employees. MSDSs explain how to medically treat a person that has been exposed to a hazardous substance and how to safely cleanup a spill.

Hazardous liquids and chemical storage - Generally, incompatible hazardous materials must be stored in separate locations, with distinct secondary containment vessels for each type of material. Secondary containment is required for hazardous liquids and must be sized to contain a spill volume equivalent to the largest hazardous material container or 10% of the

total volume, whichever is greater. Flammable and combustible hazardous materials must be separated from oxidizers by a distance of no less than 20 feet. The following guidelines should be followed when handling and storing hazardous materials.

Always label containers with the substance inside for both hazardous and non-hazardous materials. For flammable hazardous materials, make certain that an appropriate fire extinguisher is available nearby the storage area. Dry powder fire extinguishers are the most versatile. Water filled fire extinguishers should not be used on certain types of hazardous material fires (e.g. water-reactive metals, strong acids, petroleum).

- Acids (e.g., hydrochloric acid, pool cleaner, citric acid) must be segregated from:
  - ✓ Reactive metals such as sodium, potassium, magnesium, etc.
  - ✓ Flammable and combustible materials.
  - ✓ Chemicals which could generate toxic or flammable fumes when mixed.
  - ✓ Bases.

- Bases (e.g., Portland cement, lime, lye, or drain cleaner) must be segregated from:
  - ✓ Acids, metals, organic peroxides and flammable liquids, and other easily ignitable materials.
  - ✓ Solvents
  - ✓ Oxidizing acids and oxidizers.

- Oxidizers (e.g., ammonium nitrate, ammonium phosphate, oxygen gas cylinders) must be segregated from:
  - ✓ Combustible and flammable liquids and gasses (e.g. petroleum, acetylene cylinders, solvents) with at least 20 feet of separation.
  - ✓ Reducing agents such as zinc, alkali metals, and formic acid.

- Flammable materials (e.g., gasoline, fuses, gunpowder, acetylene cylinders) must be segregated from:
  - ✓ Oxidizers, caustic materials, acids, and bases.

It is good housekeeping practice to store compatible hazardous materials exclusively away from agricultural chemicals. Although uncommon, some organic agricultural amendments may be caustic, ignitable, or corrosive. Segregation of hazardous materials from non-hazardous materials eliminates the potential for cross-contamination of materials and exposure of workers to hazardous fumes or residues.

ATTACHMENT 2

STAFF ANALYSIS OF THE EVIDENCE SUPPORTING THE REQUIRED FINDINGS

Required Findings: To approve this project, the Hearing Officer must determine that the applicant has submitted evidence in support of making **all** of the following required findings.

The County Zoning Ordinance, Sections 312-1.1.2 and 312-17.1 of the Humboldt County Code (Required Findings for All Discretionary Permits) specify the findings that are required to grant a Conditional Use Permit and Special Permit:

1. The proposed development is in conformance with the County General Plan;

2. The proposed development is consistent with the purposes of the existing zone in which the site is located;

3. The proposed development conforms with all applicable standards and requirements of these regulations;

4. The proposed development and conditions under which it may be operated or maintained will not be detrimental to the public health, safety, or welfare; or materially injurious to property or improvements in the vicinity;

5. The proposed development does not reduce the residential density for any parcel below that utilized by the Department of Housing and Community Development in determining compliance with housing element law (the midpoint of the density range specified in the plan designation) unless the following written findings are made supported by substantial evidence: 1) the reduction is consistent with the adopted general plan including the housing element; and 2) the remaining sites identified in the housing element are adequate to accommodate the County share of the regional housing need; and 3) the property contains insurmountable physical or environmental limitations and clustering of residential units on the developable portions of the site has been maximized; and

6. In addition, the California Environmental Quality Act (CEQA) states that one of the following findings must be made prior to approval of any development which is subject to the regulations of CEQA. The project either:

   a. Is categorically or statutorily exempt; or

   b. Has no substantial evidence that the project will have a significant effect on the environment and a negative declaration has been prepared; or

   c. Has had an environmental impact report (EIR) prepared and all significant environmental effects have been eliminated or substantially lessened, or the required findings in Section 15091 of the CEQA Guidelines have been made.

Staff Analysis of the Evidence Supporting the Required Findings: To approve this project, the Hearing Officer must determine that the applicant has submitted evidence in support of making **all** of the following required findings.

1. The proposed development must be consistent with the General Plan. The following table identifies the substantial evidence which supports finding that the proposed development is in conformance with all applicable policies and standards of the Humboldt County General Plan.

Plan Section	Summary of Applicable Goal, Policy or Standard	Evidence Which Supports Making the General Plan Conformance Finding
Land Use Chapter 4 Land Use Designations Section 4.8	Agricultural Grazing (AG): This designation is intended for dry-land grazing areas in relatively small land holdings that support grazing supplemented by timber harvest and other non-prime agricultural land uses including general agriculture. Residential uses must support agricultural operation.	The project entails the outdoor cultivation of 26,067 SF of outdoor and 1,841 SF of mixed light commercial medical cannabis along with a 2,000 SF appurtenant nursery. The MMRSA, Health and Safety Code section 11362.777(a) provides that cannabis is an agricultural product, subject to extensive state and local regulation. The CMMLUO provides for the cultivation of cannabis within the zoning districts where agriculture is a principally permitted use, with limits and in compliance with performance standards that will preserve space for more traditional agricultural activities that supply food and fiber contributing to a diverse economic base. The existing cultivation is considered an agricultural use.
Circulation Chapter 7	Goals and policies contained in this Chapter relate to a balanced, safe, efficient, accessible and convenient circulation system that is appropriate for each type of unincorporated community (C-G1,C-G2); coordinated planning design, development, operations, and maintenance between the County and other transportation system service providers (C-G3); and access for all transportation mode types with improved opportunities to move goods within, into and out of Humboldt County (C-G4, C-G5) Related policies: C-P3. Consideration of Transportation Impacts in Land Use Decision Making	Access to the site is directly off a paved non-County-maintained public road (Conklin Creek Road). Public Works requested a road evaluation report be prepared and returned to them for review in a letter dated October 13, 2017. The Applicants provided a self-certified Road Evaluation Report that Conklin Creek Road is developed to Category 4 standards). Department of Public Works is not anticipated to respond further. The Applicant's Cultivation and Operation Plan anticipates approximately two trips per day and peak traffic times to be between 6 A.M. – 7 A.M. and 5 P.M. – 6 P.M. Applicant will limit daily trips during peak traffic times by scheduling deliveries to and from the site during off-peak hours. Conditions of approval require the driveways that connect to the County road to be improved to meet County visibility ordinance and encroachment permit ordinance standards if they do not already.

Plan Section	Summary of Applicable Goal, Policy or Standard	Evidence Which Supports Making the General Plan Conformance Finding
Housing Chapter 8	Goals and policies contained in this Element seek to identify existing and projected housing needs and establish goals, policies, standards and measures for the preservation, improvement, and development of housing. Related policies: H-P3, Development of Parcels in the Residential Land Inventory	The project does not involve residential development, nor is the project site part of the Housing element Residential Land Inventory. However, the project will not preclude any future residential development. The project will not reduce the residential density for any parcel below that utilized by the Department of Housing and Community Development in determining compliance with housing element law.
Conservation and Open Space Chapter 10 Open Space Section 10.2	Goals and policies contained in this Chapter relate to an Open Space and Conservation Program that is complimentary to other agencies' plans and that preserves the county's unique open spaces (CO-G1,CO-G3) Related policies: CO-P1, Conservation and Open Space Program; CO-P8, Development Review, CO-S1. Identification of Local Open Space Plan, and CO-S2. Identification of the Open Space Action Program	The proposed project is located within the Open Space Land Action Program because the project site is has the designated land use of Agriculture Grazing. The project can be found consistent with the Open Space Plan because the proposed project is consistent with the allowable uses of the Land Use Designations. The proposed cannabis cultivation - an agricultural product - is within land planned for agricultural purposes, consistent with the use of Open Space land for managed production of resources while preserving the provisioning of livelihoods, profitable economic returns, and ecological values.
Conservation and Open Space Chapter 10 Biological Resources Section 10.3	Goals and policies contained in this Chapter relate to mapped sensitive habitat areas where policies are applied to protect fish and wildlife and facilitate the recovery of endangered species (BR-G1, Threatened and Endangered Species, BR-G2, Sensitive and Critical Habitat, BR-G3, Benefits of Biological Resources) Related policies: BR-P1. Compatible Land Uses, BR-P5. Streamside Management Areas.	The Applicant does not use any generators onsite and shall refrain from the improper storage or use of rodenticides – both of which are known to harm sensitive species such as the Pacific Fisher and the Northern Spotted Owl. The Applicant uses mixed light cultivation and maintains an appurtenant nursery that uses artificial light. As a condition of this permit, the Applicant shall shield greenhouses so that little to no light escapes. Light shall not escape at a level that is visible from neighboring properties between sunset and sunrise. There is a small ditched, highly seasonal, drainage bisecting agricultural fields that crosses the parcel at its northern end. No cultivation activities occur within 200 feet of this potentially non-jurisdictional storm drainage. Prior to issuance of building permits for the proposed pond, the applicant will be required to provide mapping of the SMA to ensure that the proposed pond will remain outside of the SMA 60 FT to the north of the parcel boundary. This has been made a condition of approval. The Mattole River SMA is below Conklin Road, 100 feet beyond the southern parcel boundary.
Conservation	Goals and policies contained in	The Bear River Band of the Rohnerville Rancheria

Plan Section	Summary of Applicable Goal, Policy or Standard	Evidence Which Supports Making the General Plan Conformance Finding
and Open Space Chapter 10 Cultural Resources Section 10.6	this Chapter relate to the protection and enhancement of significant cultural resources, providing heritage, historic, scientific, educational, social and economic values to benefit present and future generations (CU-G1, Protection and Enhancement of Significant Cultural Resources) Related policies: CU-P1. Identification and Protection, CU-P2. Native American Tribal Consultation]	recommended a Cultural Resource Investigation be completed for this project. William Rich and Associates prepared a Cultural Resource Investigation report in December of 2017 detailing field investigations of the entire area proposed for cultivation. No artifacts, features, site, buildings, structures, or elements of a historical landscape were identified during the field survey. Ongoing conditions of approval are incorporated regarding the inadvertent discovery protocol to protect cultural resources, in accordance with CU-S4(E) Standard Conditions
Conservation and Open Space Chapter 10 Scenic Resources Section 10.7	Goals and policies contained in this Chapter relate to the protection of scenic areas that contribute to the enjoyment of Humboldt County's beauty and abundant natural resources (SR-G1); and a system of scenic highways roadways that increase the enjoyment of, and opportunities for, recreational and cultural pursuits and tourism in the County. (SR-G2) Related policies: SR-S4. Light and Glare	The project involves 1,840 SF of mixed-light cultivation as well as supplemental light in two 1,000 SF appurtenant nursery greenhouses. The CMMLUO requires that mixed light cultivation comply with International Dark Sky Association standards for Lighting Zone 0 and Lighting Zone 1, and be designed to regulate light spillage onto neighboring properties resulting from backlight, uplight, or glare (BUG). International Dark Sky Association Standards exceed the requirements of Scenic Resources Standard SR-S4, Light and Glare, that lighting be fully shielded, and designed and installed to minimize off-site lighting and direct light within the property boundaries.
Water Resources Chapter 11 Stormwater Drainage	Goals and policies contained in this Chapter relate to coordinated watershed planning and land use decision making to advance management priorities (WR-G3, WR-G4, WR-G5); watershed conservation and restoration efforts aimed at de-listing water bodies and watersheds which are restored to meet all beneficial uses, including water use, salmon and steelhead recovery plans, recreational activities, and the economy (WR-G1, WR-G2, WR-G7, WR-G8, WR-G9); and Related policies: WR-P10. Erosion and Sediment Discharge; WR-P46. Erosion and Sediment Control Measures.	The Project site falls within Tier 2 of the North Coast Regional Water Quality Control Board's (NCRWQCB) Order No. 2015-0023 and the preparation of a Water Resources Protection Plan (WRPP) to protect water quality from cannabis cultivation and related activities. The applicant retained Pacific Watershed Associates to prepare a WRPP for submittal to the NCRWQCB and this was provide in July, 2018. The WRPP recommendations, including the development of a water budget, procurement of water rights, and the monitoring of all water uses at their sources, have been made a condition of approval. There is a small ditched, highly seasonal, drainage bisecting agricultural fields that crosses 60 feet north of and at a higher elevation than the parcel. No cultivation activities occur within 100 feet of this potentially non-jurisdictional storm drainage and the SMA shall be avoided during pond installation as a condition of approval.

Plan Section	Summary of Applicable Goal, Policy or Standard	Evidence Which Supports Making the General Plan Conformance Finding
Water Resources Chapter 11 Onsite Wastewater Systems	Goals and policies contained in this Chapter relate to adequate public water supply as well as onsite wastewater systems and natural and developed storm drainage systems that minimize interference with surface and groundwater flows and storm water pollution (WR-G6, WR-G9, WR-G10); and Related policies: WR-IM7. Basin Plan Septic Requirements; and IS-P17. On-Site Sewage Disposal Requirements.	There is an existing residence connected to an Onsite Wastewater Treatment System (OWTS) built in 1958. There is no septic permit on file with the Division of Environmental Health. Per the Applicant, it is likely this system will fall under a Tier 0 for existing systems that are properly functioning and do not meet the conditions of failing systems or otherwise required corrective action. The WRPP identified an outhouse on the parcel. The Division of Environmental Health reviewed the project and recommended approval on August 8, 2017.
Noise Chapter 13	Goals and policies contained in this Chapter discourage incompatible uses within communities and reduce excessive noise through the application of standards (N-G1, N-G2) Related policies: N-P1, Minimize Noise from Stationary and Mobile Sources; N-P4, Protection from Excessive Noise	The subject parcel is located in an area that requires special noise attenuation measures due to the potential of surrounding Northern Spotted Owls and other wildlife. The parcel is on the grid and uses no generators. In the event that the project should use backup electrical generators then the noise generated during operation shall comply with the standards set forth in Section 55.4.11(o) of the CMMLUO and Department Policy Statement #DPS-16-005 as a condition of approval.
Safety Element Chapter 14 Geologic & Seismic	Goals and policies contained in this Chapter relate to communities that are designed and built to minimize the potential for loss of life and property resulting from natural and manmade hazards; and to prevent unnecessary exposure to areas of geologic instability, floodplains, tsunami run-up areas, high risk wildland fire areas, and airport areas planned and conditioned to prevent unnecessary exposure of people and property to risks of damage or injury (S-G1 to S-G2) Related policies: S-P11, Site Suitability; S-P6, Structural Hazards.	The project site is not located in a mapped Alquist-Priolo fault zone nor is subject to liquefaction. According to Humboldt County Web GIS, the project site is situated directly adjacent to the Honeydew fault zone, a fault <130,000 years of age with a Slip Rate of less than 0.2. Most of the cultivation areas are located in the northern portion of the parcel, an area with relatively gentle slopes (5-15%) and low seismic instability rating. At lower elevations the parcel transitions through a steep area (30-50% slope) with moderate seismic instability. The land then transitions to a flat floodplain adjacent to the Mattole River. The steep slopes are heavily vegetated. The project does not pose a threat to public safety related from exposure to natural or manmade hazards. The applicant must secure a grading permit for any planned improvements and as part of the permit the applicant will, at a minimum, incorporate the standard erosion control measures enumerated in the General Plan as a condition of approval.

Plan Section	Summary of Applicable Goal, Policy or Standard	Evidence Which Supports Making the General Plan Conformance Finding
Safety Element Chapter 14 Flooding	Goals and policies contained in this Chapter relate to the use of natural drainage channels and watersheds that are managed to minimize peak flows in order to reduce the severity and frequency of flooding. (S-G3) Related policies include: S-P12, Federal Flood Insurance Program; S-P13, Flood Plains; S-P15, Construction Within Special Flood Hazard Areas	The majority of the project parcel, all buildings, and all of the cultivation areas are outside the mapped 100-year flood hazard zone along the Mattole River. The project site is not within a mapped dam or levee inundation area.
Safety Element Chapter 14 Fire Hazards	Goals and policies of this Chapter encourage development designed to reduce the risk of structural and wildland fires supported by fire protection services that minimize the potential Related policies: S-P19, Conformance with State Responsibility Areas (SRA) Fire Safe Regulations.	The subject property is located within the State Fire Responsibility Area where the State of California has the primary financial responsibility for the prevention and suppression of wildland fires. CalFire reviewed the project and provided standard comments regarding compliance with the requirements of the County's Fire Safe Regulations, Resource Management policies, and Cannabis cultivation. The Humboldt County Fire Safe Ordinance 1952 (Section 3111-1 *et seq.*) establishes development standards for minimizing wildfire danger in state responsibility designated areas (SRA), including the maintenance of a minimum of 30 feet of defensible space from all parcel boundaries (Section 3115-2). The project contains one shed and one storage tank that are less than 30 feet from the eastern parcel boundary. These structures are not intended for cannabis related activities and the applicant has requested an exception to this standard for the shed as the low flammability of adjacent materials provide the same overall practical effect as the 30 foot offset from the parcel boundary (Section 3111-8) and acceptance of this setback reduction was provided by CalFire on June 19, 2018 based on the applicant producing the same practical effect of defensible space (30 foot clearing of vegetation around structures, fire resistant building materials, clearing ingress/egress routes). Relocation of the storage container is proposed. These mitigation measures have been made conditions of approval. The applicant is proposing installation of a 5,000 gallon water tank for fire suppression and construction of a 500,000 gallon water catchment pond in the north of the parcel which will provide fire protection in addition to meeting annual cultivation needs during the forbearance period.

Plan Section	Summary of Applicable Goal, Policy or Standard	Evidence Which Supports Making the General Plan Conformance Finding
		According to the applicant, during the peak season, the operation will employ up to three employees that will live offsite. The applicant lives in the onsite residence.
Air Quality Chapter 15	Goals and policies contained in this Chapter relate to improved air quality to meet current and future state and federal standards, including attainment of particulate matter requirements (AQ-G1, AQ-G2, AQ-G3) and the successful reduction of greenhouse gas emissions to levels consistent with state and federal requirements (AQ-G4) Related policies: AQ-P4, Construction and Grading Dust Control, AQ-S1, Construction and Grading Dust Control, AQ-P7, Interagency Coordination.	As a condition of project approval, applications for grading and or building permits shall be referred to the North Coast Air Quality Management District (NCAQMD) for review and consultation. Dust control practices during construction and grading shall achieve compliance with NCAQMD fugitive dust emission standards.

2. Zoning Compliance and 3. Conforms with applicable standards and requirements of these regulations: The following table identifies the evidence which supports finding that the proposed development is in conformance with all applicable policies and standards in the Humboldt County Zoning Regulations.

Zoning Section and Summary of Applicable Requirement	Evidence That Supports the Zoning Finding
§312-1.1.2 Legal Lot Requirement: development permits shall be issued only for a lot that was created in compliance with all applicable state and local subdivision regulations.	The parcel of land known as APN 105-111-016 is Parcel 016 of Parcel Map No. 1033 recorded in Book 9 of Parcel Maps Page 41 on April 21, 1977. There is no evidence indicating there have been any subsequent acts to merge or divide this parcel. Therefore, the subject parcel was lawfully created in its current configuration and can be developed as proposed.

§314-7.4 Unclassified (U): General agricultural uses are principal compatible uses. Designated Land Use is Agricultural Grazing (AG)	All general agricultural uses are enumerated as a principally permitted use in the U zoning district. The project is for the existing cultivation of commercial medical cannabis using outdoor and mixed light methods. Commercial medical cannabis cultivation is recognized under State law as an agricultural product. Although State law specifies it as an agricultural use and general agricultural uses are principally permitted in U, pursuant to Humboldt County Code Section 314-55.4.3.7, the commercial cultivation of cannabis for medical use is a regulated specialty crop and the cultivation of that specialty crop is not a principal permitted use under the General Agriculture use type classification in the Humboldt County Zoning Regulations. The applicant has applied for the requisite permit. Based on the referenced principally permitted use and the above, a finding of consistency with the U zoning district can be made for the project.

Zoning Section	Summary of Applicable Requirement	Evidence That Supports the Zoning Finding
Minimum Lot Area	6,000 SF (0.14 acre)	Per Parcel Map No. 1033, the subject parcel is 5.61 acres in size. As discussed above, the subject parcel is a separate legal parcel and greater than 0.14 acre in size.
Maximum Ground Coverage	40 percent	According to the site plan, the total ground coverage of existing and proposed structures and cultivation areas is approximately 38,000 SF, which is substantially less than the maximum ground coverage for the subject parcel. The maximum ground coverage for the subject parcel is 97,749 SF (40% of 5.61 acres).
Minimum Lot Width	50 feet	240 feet
Maximum Lot Depth	Three times the [maximum] width	1,140 feet deep at maximum
Setbacks Front: 20 feet Rear: 10 feet Side: 5 feet		Front, south property line: plot plan appears to have a 380-foot setback from the mixed light cultivation area. Rear, north property line: plot plans appears to have a 244-foot setback from the proposed accessory propagation area. Side, east and west property lines: plot plan shows a minimum 30-foot setback apart from two CalFire exempted sheds.
Max. Building Height	None specified	The applicant uses conventional single-story greenhouses for cultivation.
§314-61.1 Streamside Management Area (SMA)	Purpose: to provide minimum standards pertaining to the use and development of land located within Streamside Management Areas (SMAs) and other wet areas (OWA) to implement the County's Open Space Element of the General Plan.	Water is sourced from a groundwater well, surface diversion, and rainwater catchment pond, which are all outside of the SMA for the unnamed stream and Mattole River. The well that was constructed in the 1960's and the deeded spring on a parcel on the south side of the Mattole River may be hydrologically connected to the Mattole River, some 150 feet to the south and the applicant agrees to forebear from use during the summer months (May 15 to October 31). The Applicant is currently developing appropriative initial statements of water diversion and use and streambed alteration agreements for diversion from the off-parcel spring and the well. Given the well may be hydrologically connected to the Mattole River, thus jurisdictional, State Water Board consultation is made a condition of this permit. This is necessary to protect the Mattole River from being negatively impacted by the potential diversion. The well was installed in 1968, prior to the April 25, 1995 deadline requiring a Special Permit (SP) for any SMA encroachment under Section 314-61.9 of the SMAO.

314-55.4 et seq. HCC: Commercial Cultivation, Processing, Manufacturing and Distribution of Cannabis for Medical Use Inland Land Use Regulation (CMMLUO)		
§314-55.4.8.2.2 Criteria for existing outdoor and mixed-light cultivation areas:		
Slopes less than 15 percent		Per Humboldt County WebGIS, the slopes on the subject parcel where cultivation occurs do not exceed 30-50 percent.
With documented current water right or other non-diversionary source of irrigation water.		The applicant's operation uses a potentially-diversionary well to fill 3000 gallons of hard tank storage. The applicant is in consultation with the State Water Board to determine if its proximity to the Mattole River indicates it is hydrologically connected and, according to the WRPP, Initial Statements of Diversion and Use were filed for both the well and the spring in 2017. Forbearance of diversion from this well is made a condition of approval. The applicant plans to have a total of 506,500 gallons of water storage once a pond is constructed and will use only pond water to irrigate cannabis cultivation areas. Based on the submitted evidence, the project complies with the referenced section as conditioned.
Cultivation shall be located on the Prime Agricultural Soils on the parcel and no more than 20 percent of the area of Prime Agricultural soils may be permitted for commercial medical cannabis cultivation.		Per Humboldt County WebGIS, prime soils exist adjacent to the Mattole River in the 100-year flood zone. The existing cultivation activities are outside of the prime soils (and flood zone) on the parcel. The project as proposed is consistent with this standard.
§314-55.4.8.2	In all zones where cultivation is allowed consisting of timberland, the commercial cultivation of cannabis for medical use shall only be permitted within a 3-acre conversion exemption area, or non-timberland open area, subject to the conditions and limitations set forth in this Section.	The project will not result in a conversion of timberland because the project will result in the land being used for agricultural production and no trees will be removed.
§314-55.4.8.10 Permit Limit	No more than four commercial cannabis activity permits may be issued to a single person, as defined in the referenced section.	According to records maintained by the Department, Karl Benemann, the applicant, holds no other cannabis activity permits, and is entitled to four. This application is for one permit.
§314-55.4.9.1 Accessory Processing	Processing for cultivation requiring a Special Permit or Use Permit will be considered in the Use Permit application.	All commercial medical cannabis cultivated will be processed at a licensed off-site location.
§314-55.4.9.4 Pre-Application Registration	Existing cultivation sites shall register with the County within 180 days of the effective date of this ordinance.	A Commercial Cannabis Registration Form for APN 105-111-016, was filed with the Planning Division on August 22, 2016, and within the specified window.

§314-55.4.10 Application Requirements	Identifies the Information Required for All Applications	Attachment 3 identifies the information submitted with the application, and shows all the required information was received.
§314-55.4.11 Performance Standards	Identifies the Performance Standards for Cannabis Cultivation Activities	All the applicable performance standards are included as Conditions of project approval. They are required to be met throughout the timeframe of the permit.
§314-55.4.11.c Performance Standards-Water	Compliance with all statutes, regulations and requirements of the California State Water Resources Control Board, Division of Water Rights, at a minimum to include a statement of diversion of surface water from a stream, river, underground stream, or other watercourse required by Water Code Section 5101, or other applicable permit, license, or registration.	The applicant agrees to forebear from pumping water from their well or diverting water from the spring for use as irrigation water during the forbearance period and to increase water storage to enable forbearance from May 15 to October 31st of each year. The applicant agrees to continue pursuit of a small domestic use permit for both the well and the spring from the State Water Resources Control Board. The applicant's total storage capacity is currently 1,500 gallons with a proposed 1,500 gallons. In addition, 5,000 gallons of hard tanks for domestic and fire suppression and 500,000 gallons of pond storage proposed to be constructed in 2018. Estimated annual water usage for cannabis irrigation is 213,000 gallons. The applicant is enrolled in the NCRWQB Tier 1 monitoring and reporting program (WDID# 1B16290CHUM). Based on the submitted evidence and the conditions of approval, the project complies with the referenced section.
§314-55.4.11.d and §314-55.4.8.2.1.4 Performance Standards-Setbacks	The area of cannabis cultivation and on-site processing shall be setback at least 30 feet from any property line, and 600 feet from any school, school bus stop, church or other place of religious worship, public park, or tribal cultural resources (TCRs). On eligible parcels under 5 acres in size, the cultivation area must be set back at least 300 feet from existing residences on adjoining parcels.	The applicant is not less than 600 feet from known schools, churches, parks, or TCRs. The Southern Humboldt Joint Unified School District has not responded to the project referral. The applicant's site plan shows that the cultivation area nearly conforms to the 30-foot setback to the neighboring parcel. Two sheds have been exempted from the setback by a CalFire letter dated June 19, 2018. The cultivation areas are 260 feet from a neighboring residence. However, the parcel is 5.61 acres in size.

§314-55.4.11.o Performance Standards-Generator Noise	The noise produced by a generator used for cannabis cultivation shall not be audible by humans from neighboring residences. The combined decibel level for all noise sources, including generators, at the property line shall be no more than 60 decibels. Where applicable, sound levels must also show that they will not result in the harassment of Marbled Murrelet or Spotted Owl species, when generator use is to occur in the vicinity of potential habitat. Conformance will be evaluated using current auditory disturbance guidance prepared by the United State Fish and Wildlife Service	As discussed above the primary power source for the project will be conventional grid power supplied by PG and E. If a generator is used for backup power then the applicant agrees to demonstrate that the generator used is quiet enough or shielded so that it conforms with the referenced standard.
§314-55.4.17 Sunset Date	No application for any Use Permit pursuant to the CMMLUO shall be processed for issuance or approval that is received after December 31, 2016.	The applicant filed the application on August 24, 2016.

4. Public Health, Safety and Welfare, and 6. Environmental Impact: The following table identifies the evidence which supports finding that the proposed development will not be detrimental to the public health, safety and welfare or materially injurious to properties or improvements in the vicinity, and will not adversely impact the environment.

Code Section	Summary of Applicable Requirements	Evidence that Supports the Required Finding
§312-17.1.4	The proposed development will not be detrimental to the public health, safety and welfare, and will not be materially injurious to properties or improvements in the vicinity.	The Department finds that the proposed project will not be detrimental to the public health, safety and welfare since reviewing referral agencies have approved the proposed project design. The project as proposed and conditioned is consistent with the general plan and zoning ordinances; and the proposed project is not expected to cause significant environmental damage.
§§15304 (a) and 15311 of CEQA	Categorically exempt from State environmental review.	CEQA Exemption Sections Class 1, 15301 (Existing Facilities), Class 3, 15303 (New Construction or Conversion of Small Structures), and Class 4, 15304 (Minor Alterations to Land), of the State CEQA Guidelines. Per the submitted evidence and agency responses, none of the exceptions to the Categorical Exemption per Section 15300.2 of the State CEQA Guidelines apply to this project.

5. Residential Density Target: The following table identifies the evidence which supports finding that the proposed project will not reduce the residential density for any parcel below that utilized by the Department of Housing and Community Development in determining compliance with housing element law.

Code Section	Summary of Applicable Requirement	Evidence that Supports the Required Finding

17.1.5 Housing Element Densities	The proposed development shall not reduce the residential density for any parcel below that utilized by the Department of Housing and Community Development in determining compliance with housing element law (the midpoint of the density range specified in the plan designation), except where: 1) the reduction is consistent with the adopted general plan including the housing element; and 2) the remaining sites identified in the housing element are adequate to accommodate the County share of the regional housing need; and 3) the property contains insurmountable physical or environmental limitations and clustering of residential units on the developable portions of the site has been maximized.	As discussed above the property was not included in the 2014 Housing Inventory because of the land use designation and zoning. It is developed with a single family residence which will remain. The project is in conformance with the standards in the Housing Element.

ATTACHMENT 3

Applicant's Evidence In Support of the Required Findings

Attachment 3 includes a listing of all written evidence which has been submitted by the applicant in support of making the required findings. The following materials are on file with the Planning Division:

1. The name, contact address and phone number(s) of the applicant. (On file)

2. If the applicant is not the record title owner of parcel, written consent of the owner for the application with original signature and notary acknowledgement. (On file)

3. Site plan showing the entire parcel, including easements, streams, springs, ponds and other surface water features, and the location and area for cultivation on the parcel with dimensions of the area for cultivation and setbacks from property lines. The site plan shall also include all areas of ground disturbance or surface water disturbance associated with cultivation activities, including: access roads, water diversions, culverts, ponds, dams, graded flats, and other related features. If the area for cultivation is within ¼ mile (1,320 ft.) of a school, school bus stop, church or other place of religious worship, public park, or Tribal Cultural Resource, the site plan shall include dimensions showing that the distance from the location of such features to the nearest point of the cultivation area is at least 600 feet. (Updated Site Plan dated 6.18.18 Attached)

4. A cultivation and operations plan that meets or exceeds minimum legal standards for water storage, conservation and use; drainage, runoff and erosion control; watershed and habitat protection; and proper storage of fertilizers, pesticides, and other regulated products to be used on the parcel, and a description of cultivation activities (outdoor, indoor, mixed light), the approximate date(s) cannabis cultivation activities have been conducted on the parcel prior to the effective date of this ordinance, if applicable, and schedule of activities during each month of the growing and harvesting season. (Updated Site Plan dated 6.14.18 Attached)

5. Copy of the statement of water diversion, or other permit, license or registration filed with the State Water Resources Control Board, Division of Water Rights, if applicable. (Filing on file)

6. Description of water source, storage, irrigation plan, and projected water usage. (On file)

7. Copy of Notice of Intent and Monitoring Self-Certification and other documents filed with the North Coast Regional Water Quality Control Board demonstrating enrollment in Tier 1, 2 or 3, North Coast Regional Water Quality Control Board Order No. 2015-0023, or any substantially equivalent rule that may be subsequently adopted by the County of Humboldt or other responsible agency. (On file)

8. If any on-site or off-site component of the cultivation facility, including access roads, water supply, grading or terracing impacts the bed or bank of any stream or other watercourse, a copy of the Streambed Alteration Permit obtained from the Department of Fish & Wildlife. (Notification on file)

9. If the source of water is a well, a copy of the County well permit, if available. (Conditioned)

10. If the parcel is zoned FR, U or TPZ, or involves the conversion of timberland as defined under section 4526 of the Public Resources Code, a copy of a less-than-3-acre conversion exemption or timberland conversion permit, approved by the California Department of Forestry and Fire Protection (CAL-FIRE). Alternately, for existing operations occupying sites created through prior unauthorized conversion of timberland, evidence may be provided showing that the landowner has completed a civil or criminal process and/or entered into a negotiated settlement with CAL-FIRE. (Not applicable)

11. Consent for onsite inspection of the parcel by County officials at prearranged date and time in consultation with the applicant prior to issuance of any clearance or permit, and once annually thereafter. (On file)

12. For indoor cultivation facilities, identify the source of electrical power and how it will meet with the energy requirements in section 55.4.8.2.3, and plan for compliance with applicable Building Codes. (Not applicable)

13. Acknowledge that the County reserves the right to reduce the size of the area allowed for cultivation under any clearance or permit issued in accordance with this Section in the event that environmental conditions, such as a sustained drought or low flows in the watershed will not support diversions for irrigation. (On file)

14. Acknowledge that the county reserves the right to engage with local Tribes before consenting to the issuance of any clearance or permit, if cultivation operations occur within an Area of Traditional Tribal Cultural Affiliation, as defined herein. This process will follow current departmental referral protocol, including engagement with the Tribe(s) through coordination with their Tribal Historic Preservation Officer (THPO) or other tribal representatives. This procedure shall be conducted similar to the protocols outlined under SB 18 (Burton) and AB 52 (Gatto), which describe "government to government" consultation, through tribal and local government officials and their designees. During this process, the tribe may request that operations associated with the clearance or permit be designed to avoid, minimize or mitigate impacts to Tribal Cultural Resources, as defined herein. Examples include, but are not limited to: conducting a site visit with the THPO or their designee to the existing or proposed cultivation site, requiring that a professional cultural resources survey be performed, or requiring that a tribal cultural monitor be retained during project-related ground disturbance within areas of sensitivity or concern. The county shall request that a records search be performed through the California Historical Resources Information System (CHRIS). (On-file)

15. Water Resources Protection Plan prepared by Pacific Watershed Associates, July 2018. (on file)

16. Setback approval from CalFire, June 2018. (on file)

17. North Coast Regional Water Quality Control Board notification of enrollment, May 2017. (on file)

18. Humboldt County Health Department approval. (on file)

19. Road Evaluation self-certification, November 2017. (on file)

20. Cultural Resources Investigation prepared by William Rich and Associates, December 2017. (on file and confidential)

21. CDFW referral checklist, June, 2018. (on file)

Received on 6.14.18 by ICF

CLEAR CREEK FARMS LLC

CULTIVATION, OPERATIONS, AND SECURITY PLAN

OPERATIONS PLAN

1. Description of Water Source, Storage, Irrigation Plan, and Projected Water Usage

WATER SOURCE AND STORAGE: The primary source of irrigation water is from groundwater. The groundwater well is located on the property adjacent to Conklin Creek Road. The well was built prior to the 1960's and there is no well permit on file. Applicant has filed an initial statement of water diversion and use (ISDU) for this well and has complied with reporting requirements for the State Water Resources Control Board – Division of Water Rights (SWRCB – DWR).

Applicant is proposing to add an additional groundwater well. Once installed, the new well will be the sole groundwater source used in the cultivation operation. The existing well will be used exclusively for a backup for domestic purposes.

Applicant also has deeded rights to a spring located on a separate parcel. Applicant is working with Pacific Watershed and Associates (PWA) to file an ISDU for this diversion and a Lake and Streambed Alteration Permit with the California Department of Fish and Wildlife (CDFW). The spring has a pre-1914 claim as it has serviced the property since at least 1905. Applicant is currently documenting prior use with the SWRCB. This water source will not be used in the cultivation operation.

Applicant is proposing to build an off-stream rain catchment pond that will service Applicant's cannabis operation. The proposed pond's capacity is 500,000 gallons and will be designed and engineered by PWA with sufficient catchment area to fill the pond during average and below average rainfall years. The pond will also be designed with sufficient overflow and best management practices will be implemented to ensure pond integrity and prevent erosion and sediment transportation to receiving waters. Applicant will also take measures, after consultation with CDFW and PWA, to prevent habitation of the pond by invasive species. These measures may include, but are not limited to, draining the pond at the end of the cultivation cycle and improving native species habitat in and around the pond.

Currently, Applicant has approximately 1,500 gallons of hard tank storage on site. With the addition of the proposed rain catchment pond, Applicant will have approximately 501,500 gallons of water storage for cultivation activities.

IRRIGATION PLAN: Applicant waters at agronomic rates using a conventional drip system. Applicant cultivates using pots and uses timed emitters to avoid over-watering cannabis plants. Water is piped to 100-gallon watering troughs at the end of each row cover. Each 100-gallon watering trough irrigates each individual row. Applicant irrigates cannabis plants every other day and applies feedings using a hand wand or spray stick approximately every other watering.

PROJECTED WATER USAGE: Based on historical usage and Applicant's irrigation practice of watering every other day, Applicant anticipates the following water usage by month:

Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
4,000	4,000	4,000	15,000	15,500	18,000	23,250	46,500	37,500	31,000	0	0
Yearly Water Usage: 198,750 gallons											

The above figures are weather dependent and are only estimated water usage totals. Applicant will install flow meters at all critical points to measure actual yearly water usage upon implementation of the project.

2. Description of Site Drainage, including Runoff and Erosion Control Measures

SITE DRAINAGE: There are no stream crossings on the property and there are no stream courses located on the property. All improvements and cultivation facilities are greater than 200 feet from the nearest watercourse located off property, the Mattole River. All roads on the property are maintained to promote infiltration and proper drainage. Improved areas are guttered and disperse flows to stable areas resulting in little concentrated storm-water runoff. The parcel's soils are prime agricultural soils and are well drained. Applicant will consult with PWA to address concerns of site drainage upon implementation of Applicant's project.

EROSION CONTROL MEASURES: Based on the soils profile for Applicant's parcel from the University of California Davis (UC Davis) Web Soils Survey[1], soils on Applicant's parcel are not susceptible to wind erosion due to rock and pararock fragments at the surface, and/or soil moisture. Likewise, the soils "T" Factor, or soil loss tolerance is 5, meaning the soils are deep, well-drained, stable, thus, less susceptible to erosion. Applicant will monitor soils on site for erosion on an as needed basis, and will consult with, and implement recommendations by, PWA to address any erosion concerns on the property.

RUNOFF CONTROL MEASURES: Per the UC Davis Web Soils Survey, the soils on Applicant's parcel are well drained and have a very low likelihood of producing concentrated runoff. Applicant's cultivation activities take place in stable areas of the parcel with very little slope (less than 15%). There is no runoff from Applicant's cultivation activities. Applicant uses drip irrigation, waters at agronomic rates, and uses timers to avoid overwatering. Natural grasses are maintained around all cultivation sites, which acts to filter out nutrient runoff. Applicant will consult with, and implement recommendations by, PWA to address runoff concerns, if any, at the proposed cultivation sites.

[1] https://casoilresource.lawr.ucdavis.edu/gmap/

3. Details of Measures Taken to Ensure Protection of Watershed and Nearby Habitat

PROTECTION OF WATERSHED AND HABITAT: Applicant's cultivation areas are located outside of streamside management areas (SMA) and are located at least 200 feet from the nearest watercourse. Applicant maintains vegetative buffers between the cultivation areas and any surface waters with native grasses and shrubs acting as nutrient filters between cultivated areas and surface waters. Applicant will maintain these areas and cultivation activities will be excluded from all riparian and buffer zones. Applicant will also be implementing a rain catchment system to preserve instream flows and promote habitat in riparian zones. Applicant will consult with, and implement recommendations by, PWA to ensure protection of watershed and habitat around the cultivation sites.

CULTIVATION RELATED WASTE PROTOCOLS: Applicant is implementing measures to reduce and/or eliminate cultivation related waste. Plant waste will be burned under a North Coast Unified Air Quality Control Board Burn Permit, and then reused as soil amendment for on-site vegetable gardens. Pots containing starts and clones will be washed, rinsed, and reused between seasons and recycled at the end of their useful life. Applicant will recycle pesticide and fertilizer containers per California pesticide regulations. All other associated waste will be placed in garbage cans with lids and stored under a carport with roof and side wind protection to prevent foreign material from leaching to groundwater or being windblown to watercourses. Waste is self-hauled from the site daily during the growing season.

REFUSE DISPOSAL: Applicant stores garbage in 40-gallon garbage cans with lids that are located either in the on-site barn or under the carport. Each refuse disposal area has a roof and side wind protection to prevent foreign materials from being windblown to surface waters. Applicant will store garbage cans in secondary containment to prevent leaching to ground water or surface waters. Refuse is self-hauled off-site daily during the height of the growing season.

HUMAN WASTE: There currently is an on-site waste treatment system (OWTS) that services the three-bedroom residence. The residence was built in 1958 and there is no septic permit on file with the Department of Environmental Health. The OWTS appears to be functioning properly and there is no dispersal field failure. The OWTS meets all applicable setback requirements. It is likely that this system will fall under a Tier 0 for existing systems that are properly functioning and do not meet the conditions of failing systems or otherwise require corrective action, as defined in the Humboldt County Local Agency Management Plan. If necessary, Applicant will ensure that the facility meets ADA requirements.

4. Protocols for Proper Storage and Use of Fertilizers, Pesticides, and Other Regulated Products

PESTICIDES: Pesticides are stored in an-on site shed equipped with a non-permeable floor liner to prevent leaching of pesticides into groundwater or transport to surface waters. Pesticides will be kept in original containers with labels affixed and kept in secondary containment totes to further minimize spills from being transported to groundwater or receiving surface waters. Approved spill proof containers with appropriate warning and information labels will be used to transport pesticides to and from site.

Applicant will maintain and keep personal protective equipment required by the pesticide label in good working order. Coveralls will be washed after all use when required.

All required warning signs will be posted and material safety data sheets (MSDS) will be kept in the area where pesticides are stored. Emergency contact information in the event of pesticide poisoning shall also be posted at the work site including the name, address and telephone number of emergency medical care facilities. Change areas and decontamination rooms will be available on-site.

Before making a pesticide application, operators will evaluate equipment, weather conditions, and the property to be treated and surrounding areas to determine the likelihood of substantial drift or harm to non-target crops, contamination, or the creation of a health hazard.

FERTILIZERS: Fertilizers will be stored in the on-site shed which his equipped with a non-permeable floor liner to prevent leaching and transport to surface waters. Applicant will store and use fertilizers according to the protocols it uses for pesticide storage and use. Fertilizers will be kept in secondary containment totes to further prevent leaching. Applicant will use all fertilizers according to the label and use personal protective equipment as required by the label.

Before making a fertilizer application, operators will evaluate equipment, weather conditions, and the property to be treated and surrounding areas to determine the likelihood of substantial drift or harm to non-target crops, contamination, or the creation of a health hazard.

SOIL AMENDMENTS: Applicant does not store soil amendments on site. Instead, bulk amendments are purchased off-site and immediately mixed in to soil.

Before making a soil amendment application, operators will evaluate equipment, weather conditions, and the property to be treated and surrounding areas to determine the likelihood of substantial drift or harm to non-target crops, contamination, or the creation of a health hazard.

PETROLEUM PRODUCTS AND STORAGE: There are no petroleum products stored on site as Applicant has on-grid power. Five-gallon spill proof gasoline cans may be brought on site to fuel small gas engines. If stored on-site, gasoline cans will be stored in a separate shed away from combustible materials, and will be stored in secondary containment totes to prevent spills from seeping into groundwater.

5. Description of Cultivation Activities (e.g. outdoor, indoor, mixed light)

CULTIVATION ACTIVITIES: Applicant is proposing to permit an existing full-term outdoor cultivation site with cultivation area of 19,000 sq. ft. and an existing mixed light cultivation site with cultivation area of 3,000 sq. ft., 700 sq. ft. of accessory propagation area. Applicant will be applying for a conditional use permit for the above referenced activity. Applicant will cultivate three cycles of Mixed Light. Applicant will irrigate cultivation from a mix of groundwater, a surface water diversion, and an off-stream rain catchment pond. There will be no generator use in the cultivation as power for cultivation activities is supplies from on-grid sources.

Applicant will completely shield greenhouses used in the mixed light cultivation so that little to no light escapes to neighboring parcels and will comply with the International Dark Sky Associations standards for lighting as described in Humboldt County's Commercial Medical Marijuana Land Use Ordinance.

Applicant anticipates hiring three (3) employees at the height of the cultivation season. Applicant's parcel is located just off of Conklin Creek Road in Petrolia. Applicant anticipates approximately two trips per day and peak traffic times to be between 6 A.M. and 7 A.M. and 5 P.M. to 6 P.M. Applicant will limit daily trips during peak traffic times by scheduling deliveries to and from the site during off-peak hours. Parking will be near the cultivation site and no on-site housing will be provide.

Applicant will declare itself as an agricultural employer as that term is defined under the California Labor Code. Applicant will follow all performance standards outlined in Humboldt County's Commercial Medical Marijuana Land Use Ordinance ("CMMLUO") with respect to cultivation activities, including developing employee safety protocols which include: 1) an emergency action response plan and spill prevention protocols; 2) employee accident reporting and investigation policies; 3) fire prevention policies; 4) maintenance of Material Safety Data Sheets (MSDS); 5) materials handling policies; 6) job hazard analyses; and 7) personal protective equipment policies. Applicant will ensure that all safety equipment is in good and operable condition, and provide employees with training on the proper use of safety equipment.

Applicant will post and maintain an emergency contact list which includes: 1) operation manager contacts; 2) emergency responder contacts; and 3) poison control contacts. All cultivation activities will be charted and calendared and visibly posted in the cultivation facilities.

6. Schedule of Activities During Each Month of the Growing and Harvesting Season

January, February

- No cultivation activities
- Cut down cover crop
- Raise mother plants to produce clones in nursery
- Irrigate mother plants
- 0 hours of generator use

March

- Maintain "mothers"
- Cut clones for "starts"
- 0 hours of generator use

April

- Cut clones
- Root cut clones
- Vegetate clones in nursery
- 0 hours of generator use

May

- Transplant vegetated clones into greenhouses for first flowering cycle
- Pull tarps for light deprivation cycle
- Net and maintain plants
- Irrigation
- Feeding
- Cut clones for second flowering cycle
- 0 hours of generator use

Full Term Outdoor

- Cut clones for outdoor cultivation
- Root clones for outdoor cultivation
- 0 hours of generator use

June

- Late June: Harvest first run of light deprivation plants
- Root clones for second flowering cycle
- Vegetate clones for second flowering cycle
- Irrigation

- Feeding
- 0 hours of generator use

Full Term Outdoor:

- Vegetate clones for outdoor cultivation
- Transplant to larger pots
- Rotate plants outside for full term cultivation
- Net plants for outdoor cultivation
- 0 hours of generator use

July

- Transplant vegetated clones into greenhouses for second flowering cycle
- Pull tarps for second light deprivation cycle
- Net and maintain plants
- Irrigation
- Feeding
- Cutting clones for third flowering cycle
- Root clones for third flowering cycle
- Vegetate clones for second flowering cycle
- 0 hours of generator use

Full Term Outdoor

- Irrigation
- Feeding
- 0 hours of generator use

August

- Harvest second run of light deprivation plants
- Transplant vegetated clones into greenhouses for third flowering cycle
- Net and maintain plants
- Irrigation
- Feeding
- 0 hours of generator use

Full Term Outdoor

- Irrigation
- Feeding
- 0 hours of generator use

September

- Irrigation
- Feeding

- Begin harvesting third run of light deprivation plants
- 0 hours of generator use

Full Term Outdoor
- Irrigation
- Feeding
- 0 hours of generator use

October
- Harvest of third run of light deprivation plants
- 0 hours of generator use

Full Term Outdoor
- Harvest of full term outdoor plants
- 0 hours of generator use

November, December
- Plant cover crop
- Cover crop established
- Cleanup/Winterize cultivation site
- 0 hours of generator use

PROCESSING PLAN AND ACTIVITIES

PLAN: No processing activities will be conducted on site. Applicant will hang plants in the labeled "processing" building prior to transferring dried plants to an off-site to permitted processing facility for further processing. Applicant will identify permitted processing facility once permits for such facilities have been issued by the County.

SECURITY FEATURES

Applicant has implemented security measures to safeguard the product and prevent nuisance from occurring on the property. Perimeter fencing around the cultivation areas have been established. Security gates are installed along all main roads.

Applicant intends to install security cameras around the cultivation sites and at the entrances to the parcel.

To ensure the non-diversion of product, Applicant will enroll in a track and trace program upon the implementation of those programs at the state and local level. Applicant is a member of licensed dispensary facilities and Applicant will comply with SB 420 and the Attorney General Guidelines for the Security and Non-Diversion of Medical Cannabis (2007).

PROJECTED WATER USAGE: Based on historical usage and Applicant's irrigation practice of watering every other day, Applicant anticipates the following water usage by month:

Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
4,000	4,000	4,000	15,000	15,500	18,000	23,250	46,500	37,500	31,000	0	0
Yearly Water Usage: 198,750 gallons											

The above figures are weather dependent and are only estimated water usage totals. Applicant will install flow meters at all critical points to measure actual yearly water usage upon implementation of the project.

2. Description of Site Drainage, including Runoff and Erosion Control Measures

SITE DRAINAGE: There are no stream crossings on the property and there are no stream courses located on the property. All improvements and cultivation facilities are greater than 200 feet from the nearest watercourse located off property, the Mattole River. All roads on the property are maintained to promote infiltration and proper drainage. Improved areas are guttered and disperse flows to stable areas resulting in little concentrated storm-water runoff. The parcel's soils are prime agricultural soils and are well drained. Applicant will consult with PWA to address concerns of site drainage upon implementation of Applicant's project.

EROSION CONTROL MEASURES: Based on the soils profile for Applicant's parcel from the University of California Davis (UC Davis) Web Soils Survey[1], soils on Applicant's parcel are not susceptible to wind erosion due to rock and pararock fragments at the surface, and/or soil moisture. Likewise, the soils "T" Factor, or soil loss tolerance is 5, meaning the soils are deep, well-drained, stable, thus, less susceptible to erosion. Applicant will monitor soils on site for erosion on an as needed basis, and will consult with, and implement recommendations by, PWA to address any erosion concerns on the property.

RUNOFF CONTROL MEASURES: Per the UC Davis Web Soils Survey, the soils on Applicant's parcel are well drained and have a very low likelihood of producing concentrated runoff. Applicant's cultivation activities take place in stable areas of the parcel with very little slope (less than 15%). There is no runoff from Applicant's cultivation activities. Applicant uses drip irrigation, waters at agronomic rates, and uses timers to avoid overwatering. Natural grasses are maintained around all cultivation sites, which acts to filter out nutrient runoff. Applicant will consult with, and implement recommendations by, PWA to address runoff concerns, if any, at the proposed cultivation sites.

[1] https://casoilresource.lawr.ucdavis.edu/gmap/

3. Details of Measures Taken to Ensure Protection of Watershed and Nearby Habitat

PROTECTION OF WATERSHED AND HABITAT: Applicant's cultivation areas are located outside of streamside management areas (SMA) and are located at least 200 feet from the nearest watercourse. Applicant maintains vegetative buffers between the cultivation areas and any surface waters with native grasses and shrubs acting as nutrient filters between cultivated areas and surface waters. Applicant will maintain these areas and cultivation activities will be excluded from all riparian and buffer zones. Applicant will also be implementing a rain catchment system to preserve instream flows and promote habitat in riparian zones. Applicant will consult with, and implement recommendations by, PWA to ensure protection of watershed and habitat around the cultivation sites.

CULTIVATION RELATED WASTE PROTOCOLS: Applicant is implementing measures to reduce and/or eliminate cultivation related waste. Plant waste will be burned under a North Coast Unified Air Quality Control Board Burn Permit, and then reused as soil amendment for on-site vegetable gardens. Pots containing starts and clones will be washed, rinsed, and reused between seasons and recycled at the end of their useful life. Applicant will recycle pesticide and fertilizer containers per California pesticide regulations. All other associated waste will be placed in garbage cans with lids and stored under a carport with roof and side wind protection to prevent foreign material from leaching to groundwater or being windblown to watercourses. Waste is self-hauled from the site daily during the growing season.

REFUSE DISPOSAL: Applicant stores garbage in 40-gallon garbage cans with lids that are located either in the on-site barn or under the carport. Each refuse disposal area has a roof and side wind protection to prevent foreign materials from being windblown to surface waters. Applicant will store garbage cans in secondary containment to prevent leaching to ground water or surface waters. Refuse is self-hauled off-site daily during the height of the growing season.

HUMAN WASTE: There currently is an on-site waste treatment system (OWTS) that services the three-bedroom residence. The residence was built in 1958 and there is no septic permit on file with the Department of Environmental Health. The OWTS appears to be functioning properly and there is no dispersal field failure. The OWTS meets all applicable setback requirements. It is likely that this system will fall under a Tier 0 for existing systems that are properly functioning and do not meet the conditions of failing systems or otherwise require corrective action, as defined in the Humboldt County Local Agency Management Plan. If necessary, Applicant will ensure that the facility meets ADA requirements.

4. Protocols for Proper Storage and Use of Fertilizers, Pesticides, and Other Regulated Products

PESTICIDES: Pesticides are stored in an-on site shed equipped with a non-permeable floor liner to prevent leaching of pesticides into groundwater or transport to surface waters. Pesticides will be kept in original containers with labels affixed and kept in secondary containment totes to further minimize spills from being transported to groundwater or receiving surface waters. Approved spill proof containers with appropriate warning and information labels will be used to transport pesticides to and from site.

Applicant will maintain and keep personal protective equipment required by the pesticide label in good working order. Coveralls will be washed after all use when required.

All required warning signs will be posted and material safety data sheets (MSDS) will be kept in the area where pesticides are stored. Emergency contact information in the event of pesticide poisoning shall also be posted at the work site including the name, address and telephone number of emergency medical care facilities. Change areas and decontamination rooms will be available on-site.

Before making a pesticide application, operators will evaluate equipment, weather conditions, and the property to be treated and surrounding areas to determine the likelihood of substantial drift or harm to non-target crops, contamination, or the creation of a health hazard.

FERTILIZERS: Fertilizers will be stored in the on-site shed which his equipped with a non-permeable floor liner to prevent leaching and transport to surface waters. Applicant will store and use fertilizers according to the protocols it uses for pesticide storage and use. Fertilizers will be kept in secondary containment totes to further prevent leaching. Applicant will use all fertilizers according to the label and use personal protective equipment as required by the label.

Before making a fertilizer application, operators will evaluate equipment, weather conditions, and the property to be treated and surrounding areas to determine the likelihood of substantial drift or harm to non-target crops, contamination, or the creation of a health hazard.

SOIL AMENDMENTS: Applicant does not store soil amendments on site. Instead, bulk amendments are purchased off-site and immediately mixed in to soil.

Before making a soil amendment application, operators will evaluate equipment, weather conditions, and the property to be treated and surrounding areas to determine the likelihood of substantial drift or harm to non-target crops, contamination, or the creation of a health hazard.

PETROLEUM PRODUCTS AND STORAGE: There are no petroleum products stored on site as Applicant has on-grid power. Five-gallon spill proof gasoline cans may be brought on site to fuel small gas engines. If stored on-site, gasoline cans will be stored in a separate shed away from combustible materials, and will be stored in secondary containment totes to prevent spills from seeping into groundwater.

5. Description of Cultivation Activities (e.g. outdoor, indoor, mixed light)

CULTIVATION ACTIVITIES: Applicant is proposing to permit an existing full-term outdoor cultivation site with cultivation area of 19,000 sq. ft. and an existing mixed light cultivation site with cultivation area of 3,000 sq. ft., 700 sq. ft. of accessory propagation area. Applicant will be applying for a conditional use permit for the above referenced activity. Applicant will cultivate three cycles of Mixed Light. Applicant will irrigate cultivation from a mix of groundwater, a surface water diversion, and an off-stream rain catchment pond. There will be no generator use in the cultivation as power for cultivation activities is supplies from on-grid sources.

Applicant will completely shield greenhouses used in the mixed light cultivation so that little to no light escapes to neighboring parcels and will comply with the International Dark Sky Associations standards for lighting as described in Humboldt County's Commercial Medical Marijuana Land Use Ordinance.

Applicant anticipates hiring three (3) employees at the height of the cultivation season. Applicant's parcel is located just off of Conklin Creek Road in Petrolia. Applicant anticipates approximately two trips per day and peak traffic times to be between 6 A.M. and 7 A.M. and 5 P.M. to 6 P.M. Applicant will limit daily trips during peak traffic times by scheduling deliveries to and from the site during off-peak hours. Parking will be near the cultivation site and no on-site housing will be provide.

Applicant will declare itself as an agricultural employer as that term is defined under the California Labor Code. Applicant will follow all performance standards outlined in Humboldt County's Commercial Medical Marijuana Land Use Ordinance ("CMMLUO") with respect to cultivation activities, including developing employee safety protocols which include: 1) an emergency action response plan and spill prevention protocols; 2) employee accident reporting and investigation policies; 3) fire prevention policies; 4) maintenance of Material Safety Data Sheets (MSDS); 5) materials handling policies; 6) job hazard analyses; and 7) personal protective equipment policies. Applicant will ensure that all safety equipment is in good and operable condition, and provide employees with training on the proper use of safety equipment.

Applicant will post and maintain an emergency contact list which includes: 1) operation manager contacts; 2) emergency responder contacts; and 3) poison control contacts. All cultivation activities will be charted and calendared and visibly posted in the cultivation facilities.

6. Schedule of Activities During Each Month of the Growing and Harvesting Season

January, February

- No cultivation activities
- Cut down cover crop
- Raise mother plants to produce clones in nursery
- Irrigate mother plants
- 0 hours of generator use

March

- Maintain "mothers"
- Cut clones for "starts"
- 0 hours of generator use

April

- Cut clones
- Root cut clones
- Vegetate clones in nursery
- 0 hours of generator use

May

- Transplant vegetated clones into greenhouses for first flowering cycle
- Pull tarps for light deprivation cycle
- Net and maintain plants
- Irrigation
- Feeding
- Cut clones for second flowering cycle
- 0 hours of generator use

Full Term Outdoor

- Cut clones for outdoor cultivation
- Root clones for outdoor cultivation
- 0 hours of generator use

June

- Late June: Harvest first run of light deprivation plants
- Root clones for second flowering cycle
- Vegetate clones for second flowering cycle
- Irrigation

- Feeding
- 0 hours of generator use

Full Term Outdoor:

- Vegetate clones for outdoor cultivation
- Transplant to larger pots
- Rotate plants outside for full term cultivation
- Net plants for outdoor cultivation
- 0 hours of generator use

July

- Transplant vegetated clones into greenhouses for second flowering cycle
- Pull tarps for second light deprivation cycle
- Net and maintain plants
- Irrigation
- Feeding
- Cutting clones for third flowering cycle
- Root clones for third flowering cycle
- Vegetate clones for second flowering cycle
- 0 hours of generator use

Full Term Outdoor

- Irrigation
- Feeding
- 0 hours of generator use

August

- Harvest second run of light deprivation plants
- Transplant vegetated clones into greenhouses for third flowering cycle
- Net and maintain plants
- Irrigation
- Feeding
- 0 hours of generator use

Full Term Outdoor

- Irrigation
- Feeding
- 0 hours of generator use

September

- Irrigation
- Feeding

- Begin harvesting third run of light deprivation plants
- 0 hours of generator use

Full Term Outdoor
- Irrigation
- Feeding
- 0 hours of generator use

October
- Harvest of third run of light deprivation plants
- 0 hours of generator use

Full Term Outdoor
- Harvest of full term outdoor plants
- 0 hours of generator use

November, December
- Plant cover crop
- Cover crop established
- Cleanup/Winterize cultivation site
- 0 hours of generator use

PROCESSING PLAN AND ACTIVITIES

PLAN: No processing activities will be conducted on site. Applicant will hang plants in the labeled "processing" building prior to transferring dried plants to an off-site to permitted processing facility for further processing. Applicant will identify permitted processing facility once permits for such facilities have been issued by the County.

SECURITY FEATURES

Applicant has implemented security measures to safeguard the product and prevent nuisance from occurring on the property. Perimeter fencing around the cultivation areas have been established. Security gates are installed along all main roads.

Applicant intends to install security cameras around the cultivation sites and at the entrances to the parcel.

To ensure the non-diversion of product, Applicant will enroll in a track and trace program upon the implementation of those programs at the state and local level. Applicant is a member of licensed dispensary facilities and Applicant will comply with SB 420 and the Attorney General Guidelines for the Security and Non-Diversion of Medical Cannabis (2007).

NOTICE OF INTENT

APP #11014 - CASE #CUP16-125

GREEN LIGHT
P.O. Box 17985
San Antonio, TX 78217-0985
Office (210) 494-3481
Fax (210) 494-5224

Product: NEEM CONCENTRATE
EPA Reg. No.: 70051-2-869
Effective Date: 01/01/1999

MATERIAL SAFETY DATA SHEET
Emergency Phone 800/535-5053

Size	Product Number	UPC Code
Pint	17016	0 49424 17016 6

Note: Be sure to compare the EPA registration number as given on the MSDS with the EPA registration number as given on the label as some products have had the active ingredients changed without a corresponding change in the UPC number or in the item description.

1. INGREDIENTS:
Clarified Hydrophobic Extract of Neem Oil CAS Number 8002-65-1

2. PHYSICAL AND CHEMICAL PROPERTIES:

PHYSICAL FORM:	Liquid
COLOR:	Brown
ODOR:	Garlic
BOILING POINT:	> 392°F 200°C
MELT POINT/FREEZE POINT:	55°F 12.78°C
FLASH POINT:	> 239°F 115°C
AUTO IGNITION:	N/A
UPPER EXPLOSIVE LIMITS (UEL):	N/A
LOWER EXPLOSIVE LIMITS (LEL):	N/A
pH:	6.5 - 7.5
SOLUBILITY IN WATER:	Slightly Soluble
SPECIFIC GRAVITY:	0.9137
BULK DENSITY:	N/A
% VOLATILE BY WEIGHT:	N/A
VAPOR PRESSURE at 20°C:	< 1.33 EE-5 Pa
VAPOR DENSITY:	Greater than air

3. HAZARDOUS DATA:
This product is intended for use as a pesticide to control fungi, insects, and mites on ornamental plants. This product should pose no health concerns through normal use.

Potential Health Effects:

ROUTE(S) OF ENTRY:	Eyes, skin, oral.
HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE:	None noted.
ACUTE EYE CONTACT:	May cause mild, reversible eye irritation.
CHRONIC EYE CONTACT:	Chronic exposure not likely from normal use.
ACUTE SKIN CONTACT:	May cause mild, reversible skin irritation. LD50 >2 g/kg.
CHRONIC SKIN CONTACT:	Repeated exposure may cause mild sensitization.
ACUTE INGESTION:	LD50 >5 g/kg.
CHRONIC INGESTION:	Chronic exposure not likely from normal use.
ACUTE INHALATION:	LD50 >6.2 mg/L
CHRONIC INHALATION:	Chronic exposure not likely from normal use. Product is nonvolatile.
CARCINOGENICITY:	NTP: N/A IARC: N/A OSHA: N/A
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:	None noted.

GREEN LIGHT
P.O. Box 17085
San Antonio, TX 78217-0085
Office: (210) 494-3481
Fax: (210) 494-5224

Product: NEEM CONCENTRATE
EPA Reg. No.: 70051-2-869
Effective Date: 01/01/1999

4. FIRST AID MEASURES:

FIRST AID FOR EYES:	Flush eyes with plenty of water. Get medical attention if irritation persists.
FIRST AID FOR SKIN:	Wash with soap and water. Get medical attention if irritation develops or persists.
FIRST AID FOR INHALATION:	Remove to fresh air. Seek medical attention if irritation persists.
FIRST AID FOR INGESTION:	Swallowing less than an ounce will not cause significant harm. For larger amounts, do not induce vomiting, but give one or two glasses of water to drink and get medical attention.

5. FIRE FIGHTING MEASURES:

EXTINGUISHING MEDIA:	Alcohol or polymer foam, carbon dioxide, dry chemical, or water.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	None.
SPECIAL FIRE FIGHTING PROCEDURES:	None.

6. ACCIDENTAL RELEASE MEASURES:

SPILL OR LEAK PROCEDURES:	Absorb the liquid and scrub the area with detergent and water. Avoid runoff into storm sewers and ditches which lead to waterways.

7. HANDLING AND STORAGE:

STORAGE TEMPERATURE (MIN./MAX.):	55°F / 95°F 12.78F / 35°C
SHELF LIFE:	Stable under normal storage conditions for upwards of two years.
SPECIAL SENSITIVITY:	Keep from freezing.
HANDLING AND STORAGE PRECAUTIONS:	None.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION:

EYE PROTECTION REQUIREMENTS:	Use of safety glasses goggles is recommended when handling.
SKIN PROTECTION REQUIREMENTS:	Use of protective gloves is recommended when handling.
RESPIRATORY/VENTILATION REQUIREMENTS:	No special ventilation requirements.
EXPOSURE LIMITS:	None.

9. STABILITY AND REACTIVITY:

STABILITY:	Stable.
HAZARDOUS POLYMERIZATION:	Will not occur.
INCOMPATIBILITIES:	None noted.
DECOMPOSITION PRODUCTS:	N/A
CONDITIONS TO AVOID:	None.

10. TOXICOLOGICAL INFORMATION:

Avoid breathing spray mist. Avoid contact with skin, eyes, or clothing. In case of contact flush eyes or skin with plenty of water. Get medical attention if irritation persists.

11. ECOLOGICAL INFORMATION:

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of equipment washwaters. This product is toxic to bees exposed to direct treatment. Do not apply this product while bees are actively visiting the treatment area.

12. DISPOSAL CONSIDERATIONS:

WASTE DISPOSAL METHOD: Wastes resulting from the use of this product may be disposed of onsite or at an approved waste disposal facility.

13. TRANSPORTATION INFORMATION:

D.O.T. PROPER SHIPPING NAME:	N/A
TECHNICAL SHIPPING NAME:	Clarified hydrophobic extract of Neem Oil
D.O.T. HAZARD CLASS:	N/A
U.N./N.A. NUMBER:	N/A
PRODUCT RQ (lbs.):	N/A
D.O.T. LABEL:	N/A
D.O.T. PLACARD:	N/A
FREIGHT CLASS BULK:	N/A
FREIGHT CLASS PACKAGE:	N/A
PRODUCT LABEL:	N/A

14. REGULATORY INFORMATION:

OSHA STATUS:	N/A
TSCA STATUS:	N/A
CERCLA REPORTABLE QUANTITY:	N/A
SARA TITLE III:	
Section 302 Extremely Hazardous Substances:	N/A
Section 311/312 Hazard Categories:	N/A
Section 313 Toxic Chemicals:	N/A
RCRA STATUS:	N/A

STATE REGULATORY INFORMATION:
The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For detail on your regulatory requirements you should contact the appropriate agency in your state.

All information appearing herein is based upon data obtained from the manufacturer and/or recognized technical sources. While the information is believed to be accurate as of the effective date given above, Green Light makes no representations as to its accuracy or sufficiency. Conditions of use are beyond Green Light's control. Therefore, users are responsible for determining whether under their own operating conditions the product is suitable for their particular use. Users assume all risks of use, handling, and disposal of the product. The publication or use of, or reliance upon, information contained herein does not relate to the use of this product in combination with any other material or in any other process.

ENTITY DOCUMENTS

APP #11014 - CASE #CUP16-125

Secretary of State
Articles of Organization
Limited Liability Company (LLC)

LLC-1

201625310370

IMPORTANT — Read Instructions before completing this form.

Filing Fee - $70.00

Copy Fees - First plain copy free; Additional copies: First page $1.00 & .50 for each attachment page; Certification Fee - $5.00

Important! LLCs may have to pay an annual minimum $800 tax to the California Franchise Tax Board. For more information, go to https://www.ftb.ca.gov.

FILED
Secretary of State
State of California
SEP 01 2016

This Space For Office Use Only

1. Limited Liability Company Name (See Instructions – Must contain an LLC ending such as LLC or L.L.C. "LLC" will be added, if not included.)

Clear Creek Farms, LLC

2. Business Addresses

a. Initial Street Address of Designated Office in California - Do not list a P.O. Box	City (no abbreviations)	State	Zip Code
2355 Central Avenue, #123	McKinleyville	CA	95519
b. Initial Mailing Address of LLC, if different than Item 2a	**City (no abbreviations)**	**State**	**Zip Code**
P.O. Box 1034	Ferndale	CA	95536

3. Agent for Service of Process

Item 3a and 3b: If naming an individual, the agent must reside in California and Item 3a and 3b must be completed with the agent's name and complete California street address.

Item 3c: If naming a California Registered Corporate Agent, a current agent registration certificate must be on file with the California Secretary of State and Item 3c must be completed (leave Item 3a-3b blank).

a. California Agent's First Name (if agent is not a corporation)	Middle Name	Last Name	Suffix
Karl		Benemann	
b. Street Address (if agent is not a corporation) - Do not list a P.O. Box	**City (no abbreviations)**	**State**	**Zip Code**
2355 Central Avenue, #123	McKinleyville	CA	95519

c. California Registered Corporate Agent's Name (if agent is a corporation) – Do not complete Item 3a or 3b

4. Management (Select only one box)

The LLC will be managed by:

☒ One Manager ☐ More than One Manager ☐ All LLC Member(s)

5. Purpose Statement (Do not alter Purpose Statement)

The purpose of the limited liability company is to engage in any lawful act or activity for which a limited liability company may be organized under the California Revised Uniform Limited Liability Company Act.

6. The information contained herein, including in any attachments, is true and correct.

Organizer sign here

Jeffrey Slack
Print your name here

LLC-1 (REV 06/2016)

2016 California Secretary of State
www.sos.ca.gov/business/be

APP #11014 - CASE #CUP16-125

16-776449

Secretary of State
Statement of Information
(Limited Liability Company) 145

LLC-12

FILED
Secretary of State
State of California
OCT 17 2016

IMPORTANT — Read instructions before completing this form.

Filing Fee - $20.00

Copy Fees – Face Page $1.00 & .50 for each attachment page;
Certification Fee - $5.00

21|20|PC
This Space For Office Use Only

1. Limited Liability Company Name
Clear Creek Farms, LLC

2. 12-Digit Secretary of State File Number
201625310370

3. State or Place of Organization (only if formed outside of California)

4. Business Addresses

	City (no abbreviations)	State	Zip Code
a. Street Address of Principal Office - Do not list a P.O. Box 2355 Central Avenue, #123	McKinleyville	CA	95519
b. Mailing Address of LLC, if different than item 4a PO Box 1034	Ferndale	CA	95536
c. Street Address of California Office, if Item 4a is not in California - Do not list a P.O. Box		CA	

5. Manager(s) or Member(s) If no *managers* have been appointed or elected, provide the name and address of each *member*. At least one name and address must be listed. If the manager/member is an individual, complete Items 5a and 5c (leave Item 5b blank). If the manager/member is an entity, complete Items 5b and 5c (leave Item 5a blank). Note: The LLC cannot serve as its own manager or member. If the LLC has additional managers/members, enter the name(s) and addresses on Form LLC-12A (see instructions).

First Name	Middle Name	Last Name	Suffix
a. First Name, if an individual - Do not complete Item 5b Karl		Benemann	
b. Entity Name - Do not complete Item 5a			

	City (no abbreviations)	State	Zip Code
c. Address 2355 Central Avenue, #123	McKinleyville	CA	95519

6. Agent for Service of Process Item 6a and 6b: If the agent is an individual, the agent must reside in California and Item 6a and 6b must be completed with the agent's name and California address. Item 6c: If the agent is a California Registered Corporate Agent, a current agent registration certificate must be on file with the California Secretary of State and Item 6c must be completed (leave Item 6a-6b blank).

First Name	Middle Name	Last Name	Suffix
a. California Agent's First Name (if agent is not a corporation) Karl		Benemann	
b. Street Address (if agent is not a corporation) - Do not list a P.O. Box 2355 Central Avenue, #123	City (no abbreviations) McKinleyville	State CA	Zip Code 95519
c. California Registered Corporate Agent's Name (if agent is a corporation) – Do not complete Item 6a or 6b			

7. Type of Business
a. Describe the type of business or services of the Limited Liability Company
Agriculture

8. Chief Executive Officer, if elected or appointed

First Name	Middle Name	Last Name	Suffix
a. First Name Karl		Benemann	
b. Address 2355 Central Avenue, #123	City (no abbreviations) McKinleyville	State CA	Zip Code 95519

9. The information contained herein, including any attachments, is true and correct.

October 12, 2016 (Date) | Jeffrey Slack, Esq. (Type or Print Name of Person Completing the Form) | Attorney (Title) | (Signature)

Return Address (Optional) (For communication from the Secretary of State related to this document, or if purchasing a copy of the filed document enter the name of a person or company and the mailing address. This information will become public when filed. SEE INSTRUCTIONS BEFORE COMPLETING.)

Name: Jeffrey Slack, Esq.
Company: JANSSEN MALLOY LLP
Address: 730 Fifth Street
City/State/Zip: Eureka, CA 95501

LLC-12 (REV 07/2016)

2016 California Secretary of State
www.sos.ca.gov/business/be

APP #11014 - CASE #CUP16-125

ATTACHMENT 4

REFERRAL AGENCY COMMENTS AND RECOMMENDATIONS

The project was referred to the following referral agencies for review and comment. Those agencies that provided written comments are checked off.

Referral Agency	Response	Recommendation	Location
Building Inspection Division	✓	Conditional approval	On file
Land Use Division	✓	Request Road Evaluation	On file
Division Environmental Health	✓	Approval	On file
CalFire	✓	Standard comments and Setback exemption acceptance	On file
Department of Fish & Wildlife	✓	Conditional approval	On file
NWIC	✓	Further Study	On file
Bear River Band of the Rohnerville Rancheria	✓	Further Study	On file
Intertribal Sinkyone Wilderness Council		No response	
RWQCB		No Response	
CA Division of Water Rights		No Response	
Petrolia Fire Protection District	✓	Conditional approval	On file
Humboldt County District Attorney		No response	
Humboldt County Agricultural Commissioner		No response	
Humboldt County Sheriff's Office	✓	Comments	On file
Mattole Unified School District	✓	Not near a bus stop.	On file