From: Wink, Mike@CALFIRE
To: Victoria Kim
Cc: David Casian; Jack Smalley; Rick Bergem; 500, chief@LKP
Subject: [EXTERNAL]Re: Request For Review (Major Use Permit, UP19-14; Initial Study, IS19-60; Early Activation, EA19-66)
Date: Saturday, December 7, 2019 6:44:43 PM
Attachments: image.png
image.png

Good evening Ms Kim. These are the comments from CAL FIRE for this Use Permit in the SRA (State Responsibility Area). The Lake County Chief Building Official is also the County Fire Marshall who shall ensure all Codes, Laws, Regulations and etcetera for this project shall be applied. This includes all components of PRC4290-91 et'al. The address for this Use Permit is located in the State Responsibility Area.

This location is within proximity and or surrounded by a "VERY HIGH Wildland Fire Hazard Severity Zone" area. This is the most extreme and hazardous area category for wildland fire risk.

All Fire Safe Regulations/Laws in the State of California's Public Resource Code, Division 4, and all Sections in 4290 and 4291 (4001-4958) shall apply to this application/construction. All regulations in the California Code of Regulations Title 14, Division 1.5, Chapter 7, Sub chapter 2, Article 1 through 5 shall apply to this application / construction / activity.

This shall include, but not be limited to:

- Property line setbacks for structures shall be a minimum of 30 feet.
- Addressing that is reflective and of contrasting colors from the public roadway to the location.
- On site water storage for fire protection of each structure per NFPA 1142.
- Per NFPA 1142, fire suppression water storage tanks for commercial use shall be steel or fiberglass (not plastic).
- Roads used for this project shall meet minimum standards for emergency vehicle ingress and egress
- A loop one way loop road standard could be used, or a two land road.
- A road is two 10 foot lanes of travel for a total of 20 feet not including the shoulders.
- A one lane, one way only loop road is 12 feet wide. A one lane road must connect on both ends to a two lane road or County Road.
- Existing roadways on private property shall meet, and or be improved to meet standards.
- All weather roadway surfaces shall be rated/engineered for 75,000 lb vehicles is the minimum (including bridges).
- All weather roadway surfaces do not ever have mud, standing or flowing water that vehicles have to travel through.
- Maximum roadway slope is 16%.
- Gate width is 14 foot minimum.
- Gate set backs are a minimum of 30 feet from a road to the gate.
- Gates shall have access criteria locks and alike that meet the Lakeport Fire Protection District standard "KNOX" (or similar) access program.
- Parking at the site shall allow for turnarounds, hammerhead T, or similar.
- Minimum fuels reduction of 100 feet of defensible space from all structures.

Some applications have mention that they may have a gasoline generator for backup power when solar is not available. If

this is the case, the generator shall be placed on a minimum of a 10 foot radius of a non combustible surface. It shall have a minimum of a 3A-40B.C Fire Extinguisher within the 10 foot radius.

- This property will meet the criteria to be, or will be a CERS / CUPA reporting facility/entity to Lake County Environmental Health (see hyperlink below), it shall also comply specifically with PRC4291.3 requiring 300 feet of defensible space and fuels reduction around structures. In summary, any structure or location that stores hazardous, flammable or dangerous items shall establish and maintain 300 feet of vegetation fuels reduction around its radius.

http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_codes

California's Wildland-Urban Interface Code Information - CAL FIRE - Home
www.fire.ca.gov
The law requires that homeowners do fuel modification to 100 feet (or the property line) around their buildings to create a defensible space for firefighters and to protect their homes from wildfires. New building codes will protect buildings from being ignited by flying embers which can travel as ...

http://www.lakecountyca.gov/Government/Directory/Environmental_Health/Programs/cupa.htm
Hazardous Materials Management (CUPA)
www.lakecountyca.gov
The Lake County Division of Environmental Health is the Certified Unified Program Agency for all of Lake County, dealing with hazardous waste and hazardous materials.

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https://www.nfpa.org/assets/files/AboutTheCodes/1142/1142-A2001-ROP.PDF
Report of the Committee on - NFPA
www.nfpa.org
351 Report of the Committee on Forest and Rural Fire Protection Richard E. Montague, Chair FIREWISE 2000, Inc., CA [SE] John E. Bunting, Secretary New Boston Fire Dept., NH [U]

Report of the Committee on - NFPA
www.nfpa.org
351 Report of the Committee on Forest and Rural Fire Protection Richard E. Montague, Chair
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http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_codes

California's Wildland-Urban Interface Code Information - CAL FIRE - Home

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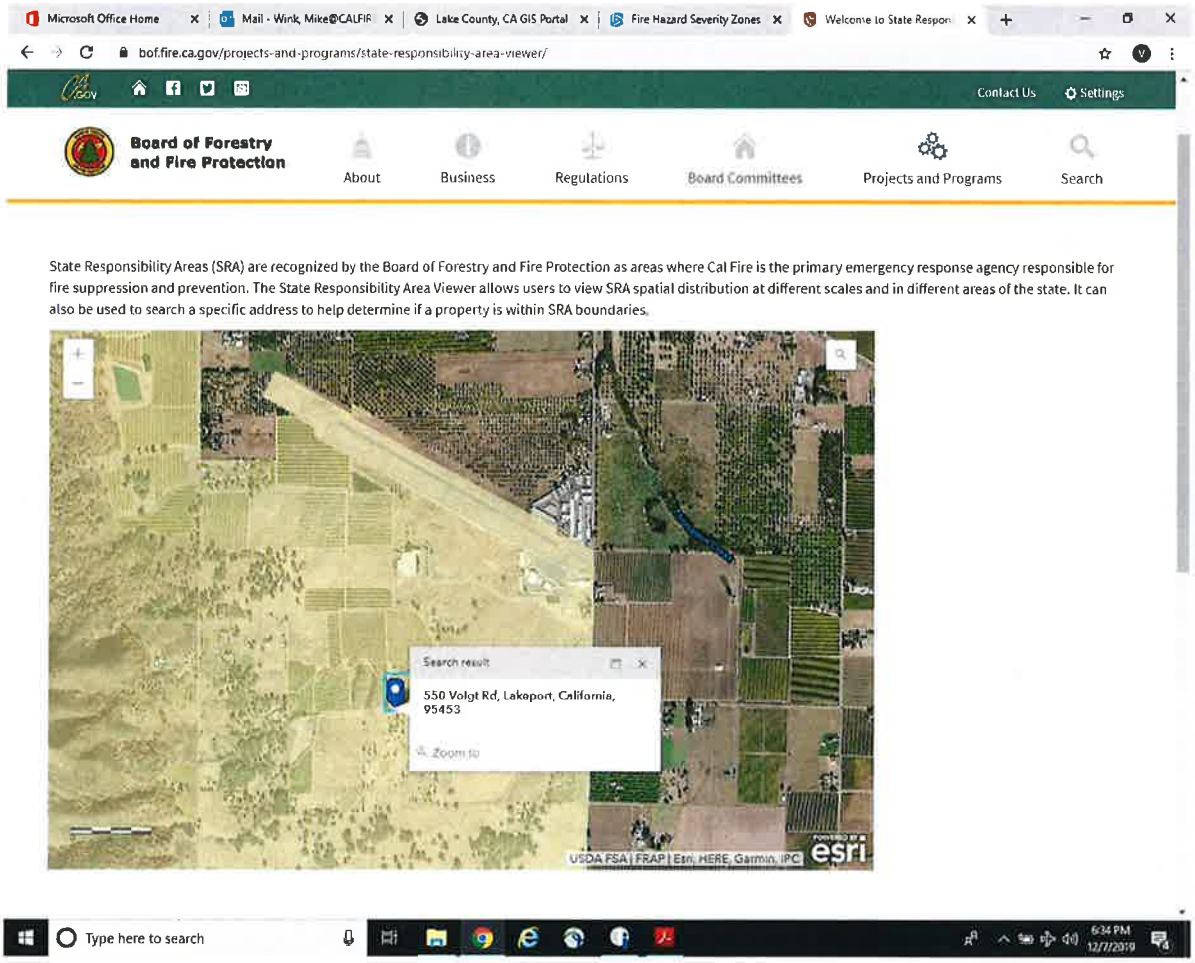
http://www.lakecountyca.gov/Government/Directory/Environmental_Health/Programs/cupa.htm
Hazardous Materials Management (CUPA)
www.lakecountyca.gov

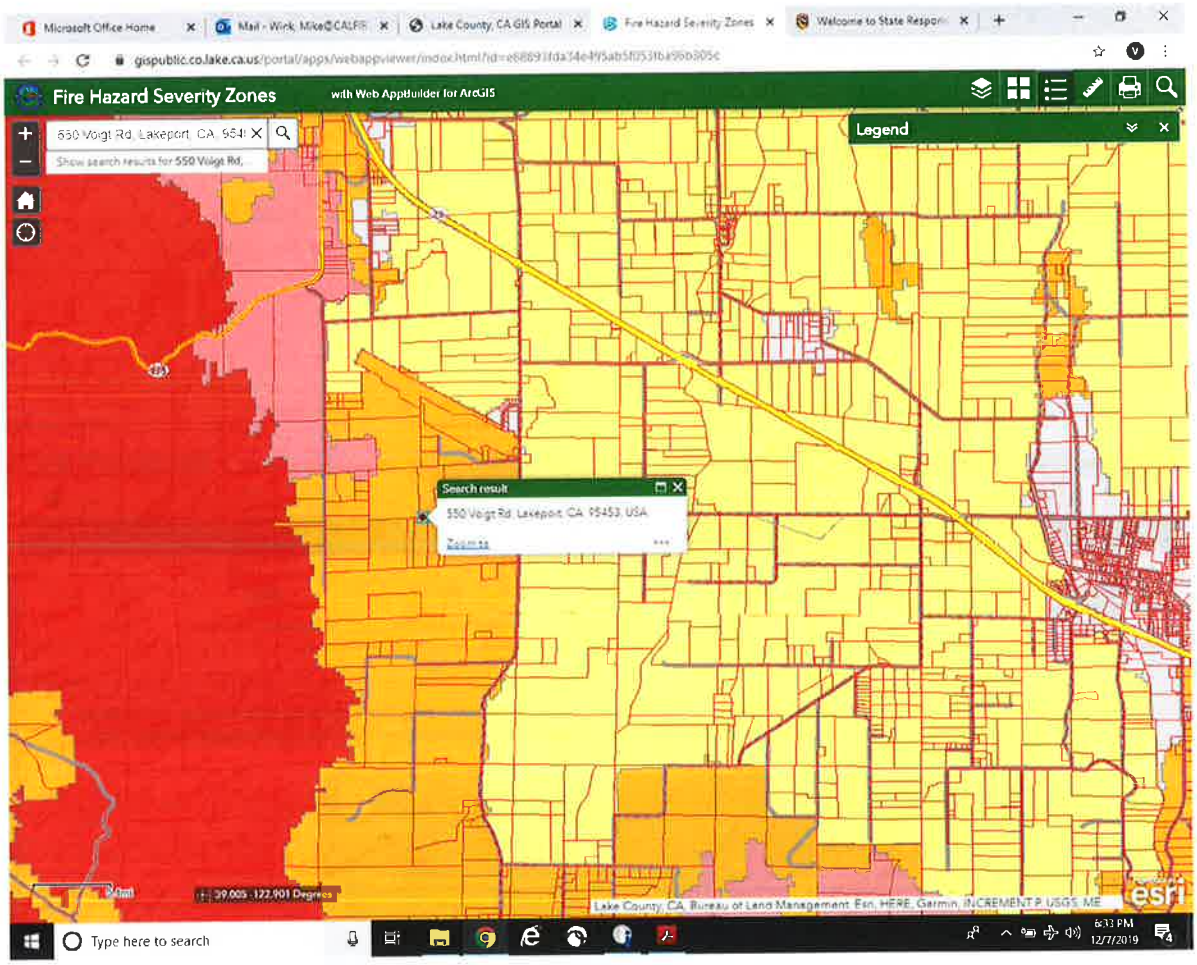
The Lake County Division of Environmental Health is the Certified Unified Program Agency for all of Lake County, dealing with hazardous waste and hazardous materials.

https://www.nfpa.org/assets/files/AboutTheCodes/1142/1142-A2001-ROP.PDF

Report of the Committee on - NFPA
www.nfpa.org

351 Report of the Committee on Forest and Rural Fire Protection Richard E. Montague, Chair FIREWISE 2000, Inc., CA [SE] John E. Bunting, Secretary New Boston Fire Dept., NH [U]





From: Victoria Kim <victoria.kim@lakecountyca.gov>
Sent: Monday, December 2, 2019 10:37 AM
To: Wink, Mike@CALFIRE <Mike.Wink@fire.ca.gov>; pbleuss@kelseyvillefire.com <pbleuss@kelseyvillefire.com>; Ch700, Fd@yahoo <fdchf700@yahoo.com>; larrythompson956@gmail.com <larrythompson956@gmail.com>; 500, chief@LKP <chief500@lakeportfire.com>; Beristianos, J@NSD <chief800@northshorefpd.com>; Fong, Gloria@CALFIRE <Gloria.Fong@fire.ca.gov>; steven.hajik@lakecountyca.gov <steven.hajik@lakecountyca.gov>; ryan.lewelling@lakecountyca.gov <ryan.lewelling@lakecountyca.gov>; maryjane.montana@lakecountyca.gov <maryjane.montana@lakecountyca.gov>; scott.deleon@lakecountyca.gov <scott.deleon@lakecountyca.gov>; kelli.hanlon@lakecountyca.gov <kelli.hanlon@lakecountyca.gov>; doug.gearhart@lakecountyca.gov <doug.gearhart@lakecountyca.gov>; fahmya@lcaqmd.net <fahmya@lcaqmd.net>; elizabethk@lcaqmd.net <elizabethk@lcaqmd.net>; lucas.bingham@lakecountyca.gov <lucas.bingham@lakecountyca.gov>; lori.baca@lakecountyca.gov <lori.baca@lakecountyca.gov>; gordon.haggitt@lakecountyca.gov <gordon.haggitt@lakecountyca.gov>; greg.peters@lakecountyca.gov <greg.peters@lakecountyca.gov>; yuliya.osetrova@lakecountyca.gov <yuliya.osetrova@lakecountyca.gov>; anafus@blm.gov <anafus@blm.gov>; kevinponce@cdfa.ca.gov <kevinponce@cdfa.ca.gov>; Jackman, Rex A@DOT <rex.jackman@dot.ca.gov>; centralvalleysac@waterboards.ca.gov <centralvalleysac@waterboards.ca.gov>; Stoner, Kyle@Wildlife <Kyle.Stoner@wildlife.ca.gov>; peggy.barthel@lakecountyca.gov <peggy.barthel@lakecountyca.gov>; ronald.yoder@lakecountyca.gov <ronald.yoder@lakecountyca.gov>; pgenorthernagencyins@pge.com <pgenorthernagencyins@pge.com>; t4b5@pge.com <t4b5@pge.com>; nwic@sonoma.edu <nwic@sonoma.edu>; tina.scott@lakecountyca.gov <tina.scott@lakecountyca.gov>
Subject: Request For Review (Major Use Permit, UP19-14; Initial Study, IS19-60; Early Activation, EA19-66)

Good morning,

Please review attached and send any comments by December 16, 2019.

Thank you,

Victoria Kim
Assistant Planner
Community Development Department
255 N. Forbes St.
Lakeport, CA 95453
P: (707) 263-2221 | F: (707) 263-2225

Files attached to this message

Filename	Size	Checksum (SHA256)
Site Management Plan.pdf	24.8 MB	dba5fa6ffe0468eb95ced5f5b51993a34160fb2c17eccfb30ce4baca7aa49519
Attachments of Site Management Plan.pdf	2.73 MB	a7d0371788b28bf25601902cfd8db2cc60be44741a16bfbd10d1591e082d65ab
RFR UP 19-41.pdf	249 KB	fb42e9493862f87788e821cef97f10cf9f542342d9b468421c412e95e000c888
Supplemental Data.pdf	6.3 MB	137e84fff808d31130719365cfa645ec9012a7b65811fd93816e3dbe242c73a8
Project Description.pdf	3.9 MB	5e2d28584c2f46bfcebcaa181055ff0e501743838d9d158029816a3151acb8ab
LLA19-10.pdf	1.19 MB	70ccac1d0c9b73f01edc0aca2acbe7cd5b545a67dbf6073fab93cbb90a8bad8b

Please click on the following link to download the attachments:
https://filetransfer.co.lake.ca.us/message/d7BFHdyDZG3lty2nneOXY9

This email or download link can be forwarded to anyone.

The attachments are available until: **Monday, 9 December.**

Message ID: d7BFHdyDZG3lty2nneOXY9

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SR0003586

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Environmental Health

Environmental Health

COUNTY OF LAKE
COMMUNITY DEVELOPMENT DEPARTMENT
Planning Division
Courthouse - 255 N. Forbes Street
Lakeport, California 95453
Telephone 707/263-2221 FAX 707/263-2225

DISTRIBUTION DATE: December 2, 2019

REQUEST FOR REVIEW FOR SUFFICIENCY

@ **AG. COMMISSIONER**	___ **FIRE PROTECTION DIST:**	@ **CA DEPT FISH & WDLF**
@ **AIR QUALITY MGMT**	@ **Kelseyville**	@ **CALTRANS**
@ **ASSESSOR**	@ **Lake County**	___ **STATE LANDS COMM.**
@ **BUILDING DIVISION**	@ **Lake Pillsbury**	@ **CRWQCB**
@ **DPW - ROADS**	@ **Lakeport County**	___ STATE DEPT. OF HEALTH
@ **ENVIRON HEALTH**	@ **Northshore**	@ **SONOMA STATE**
___ LAKEBED MANAGEMENT	@ **South Lake County**	___ NW INFORMATION CENTER
___ PUBLIC SERVICES	@ **CalFire**	___ ARMY CORPS
@ **SHERIFF**	___	@ **BLM**
@ **SPECIAL DISTRICTS**	___	@ **CALCANNABIS**
@ **SURVEYOR**	@ **PG&E**	@ **GRADING: PEGGY/RON**
@ **TAX COLLECTOR**	___ HOA_____	___
___ WASTE DISPOSAL	___ WATER CO_____	___ US FISH & WILDLIFE SVC
@ **WATER RESOURCES**	___ OTHER_____	___ US FOREST SERVICE

FROM: Victoria Kim, Assistant Planner
REQUEST: Major Use Permit, UP 19-41; Initial Study IS 19-60, Early Activation EA 19-66
APPLICANT/OWNER: Voigt Holdings LLC, 5355-A Skylane Blvd., Santa Rosa, CA 95409

APNs: 008-032-11 and 008-032-17
LOCATION: 550 Voigt Road, Lakeport, CA 95453

ZONING: "A-WW-AA" Agriculture; Water Way and Airport Approach Combining
GENERAL PLAN: Agricultural
HAZARDS: Project Parcel Located within State Responsibility Area
FLOOD ZONE: "X" Areas of minimal flooding – not in a special flood hazard area
SOIL STABILITY: 2 to 8 percent slopes
SOIL TYPE: 242 - Wappo loam
PREVIOUS PERMITS: UP 85-14 <Wood Cutting>
EXISTING-DEVELOPMENT: Agricultural
WATER SOURCE: Well
CONSTRUCTION: 1-2 months depending upon contractor availability and scheduling

PROPOSAL: **A – Type 3: "Outdoor":** 22,000 SF. of (7) 30'x100' mixed lighting Greenhouses and 21,560 SF. Outdoor cultivation for adult use cannabis; **M – Type 3: "Outdoor":** 22,000 SF. of (7) 30'x100' mixed lighting Greenhouses and 21,560 SF. Outdoor cultivation for medical use cannabis - and fencing, security, new access road, grading, parking spaces, and a 1,000 SF. headhouse for drying, processing, security office, restrooms, and break room. The operation will include employees. ***Please refer to attached supplemental data, site management plan, and project description for further information:***

ACCESS: Any site where a cannabis related activity is permitted shall have access to a public road or a recorded easement that allows for, but not limited to, delivery trucks, emergency vehicles, sheriff and other law enforcement officers, and government employees who are responsible for inspection or enforcement actions.

Please advise us if additional information is needed, which permits are required from your agency (if any), and of your environmental concerns. Additionally, please advise if your agency recommends any modifications to the project that would reduce potential environmental impacts. Due to the provisions of state law, it is essential that we receive your comments as soon as possible but in no case later than **December 16, 2019. Please email your comments to victoria.kim@lakecountyca.gov or mail them to the address listed in the letterhead above.**

COMMENTS: See attached memorandum

NAME Tina Rubin DATE 12/10/19

cc: 4 **Supervisorial District (RFR Only)** Scott Redbud Audubon **Farm Bureau / etc.) (RFR Only)**

Other (Examples: ___ Sierra Club / ___ HOA / @

COUNTY OF LAKE
Health Services Department
Environmental Health Division
922 Bevins Court
Lakeport, California 95453-9739
Telephone 707/263-1090
FAX 707/263-4395

Denise Pomeroy
Health Services Director

Gary Pace, MD, MPH
Public Health Officer

Jasjit Kang
Environmental Health Director

Promoting an Optimal State of Wellness in Lake County

Memorandum

DATE: December 10, 2019

TO: Victoria Kim, Assistant Planner

FROM: Tina Dawn-Rubin, Environmental Health Aide

RE: UP 19-41 Major Use Permit, IS 19-60 Initial Study, EA
Early Activation Cannabis Cultivation

APN: 008-032-11 and 008-032-17 550 Voigt Rd, Lakeport

The applicant must meet the Lake County Division of Environmental Health requirements regarding on-site wastewater treatment and potable water requirements.

There are no concerns regarding the processing plant as the applicant will be using chemical toilets/portable restrooms.

Lake County Environmental Health requires all applicants to provide a written declaration of the chemical names and quantities of any Hazardous Material to be used on site. As a general rule, if a material has a Safety Data Sheet, that material may be considered as part of the facilities Hazardous Material Declaration.

1.0 Introduction

1.1 Purpose

This Site Management Plan (SMP) was prepared by Voigt Holdings LLC (Applicant) in consultation with Hurvitz Environmental Consulting Inc. (HES) in order to fulfill the State Water Resources Control Board (SWRCB) General Waste Discharge Requirements for *Cannabis* General Order WQ-2019-0001 (General Order). All Tier 1 and Tier 2 dischargers must submit a SMP to their respective Regional Water Quality Control Board (RWQCB) that describes how a cultivator is implementing the best practical treatment or control (BPTC) measures listed in Attachment A of the General Order and summarized in **Appendix A**, below. These measures are designed to reduce the chances of sediments and pollutants from entering into regional waterways, to prevent erosion before it occurs, to promote environmentally sustainable water use practices, and to recommend remediation where necessary.

This SMP provides specific guidance for the Applicant and associated contractors that will ensure that no adverse discharges of sediment are released to waterways, adjacent properties, or storm drain systems, as a result of the operation of the cultivation site and roadways, as well as construction and renovation activities that may take place in the future. The specific scope of this SMP is: (1) map all operations, roads, water bodies, developed areas, and drainages, (2) provide aerial schematics for other designed features, (3) describe how the Applicant adheres to the General Order's provisions, and (4) provide a detailed list of BPTCs including measures designed specifically to address erosion control, riparian protection, soils protection and disposal, irrigation runoff, and water storage and use. Legacy waste discharge issues unrelated to *Cannabis* cultivation are also discussed if they are found to exist onsite. Timelines for implementation of these measures are also provided.

BPTC measures are drawn from the General Order, with additional *Cannabis* specific BPTCs drawn from the Central Valley RWQCB Order No. R5-2015-0113 "*Waste Discharge Requirements General Order for Discharges of Waste Associated with Medicinal Cannabis Cultivation Activities*" (CVRWQCB 2015), the North Coast RWQCB Order No. R1-2015-0023 "*Best Management Practices for Discharges of Waste Resulting from Cannabis Cultivation and Associated Activities or Operations with Similar Environmental Effects*" (NCRWQCB 2015), and the expertise of HES staff.

1.2 Project Description

Voigt Holdings LLC proposed project is to establish and operate a Commercial Cannabis Cultivation business on one parcel of land APN 008-032-170, totaling approximately 40.5 acres. The approximate site location is shown on the **Site Location Map, Plate 1**. Approximately 196,000 total square feet will be disturbed for the proposed project development which involves

both outdoor cultivation, and mixed light greenhouses as well as ancillary buildings. The property is zoned A-WW-AA which the Zoning District A allows for this use and allows for the Collocation of Permits under its current ordinance, with A Major Use Permit for the project. The project site is located approximately one (1) mile west of Highway 29 and approximately 1.3 miles south of Highway 175. The property is not located within the Cannabis Cultivation Exclusion Zone and is under the jurisdiction of the North Coast Regional Water Quality Control Board (NCRWQCB).

The cultivation project will require a A-Type 3 Outdoor and an M-Type 3 Outdoor State License to operate. Application for said licenses will commence upon approval of the Major Use Permit application.

The approximate GPS coordinates of the centroid of the parcel are 38.59 N, 122.541 W. The proposed cultivation area is located in the northern portion of the parcel in an existing vineyard (Plate 2). The cultivation site can be accessed via graded and graveled road that is in good condition, that branches to the north off of Voigt Road **(Site Drainage Plans, Plate 2 & 3)**. All proposed site features are illustrated on the **Engineered Site Plans, Appendix B.**

Previous studies completed for this project include a Biological Assessment (BA) completed by PEC dated October 31, 2019 and a Cultural Resource Assessment prepared by ALTA Archaeological Consulting. A Lake and Streambed Alteration Agreement (LSAA) application is also in preparation. There is one jurisdictional intermittent creek and culvert crossing on the site that is being addressed in a separate drainage report and Culvert Assessment associated with the LSAA. There are no other apparent jurisdictional watercourses onsite, however a protocol-level wetland delineation was not performed.

The proposed cultivation sites would require the clearing of two blocks of older grape vineyards which currently are low yielding and are not contracted for purchase by any wineries or other parties. The proposed cultivation sites will not require the removal of any trees or bushes. Upon approval of Major Use Permit, vineyard removal would begin. Irrigation lines, trellis stakes and wire would be pulled for recycling and then the vines would be bull-dozed for removal.

Existing roads would provide access to the growing areas. Vegetation removal would be minimal except for the existing removal of planted grapes. Any areas left unvegetated after the annual cannabis crops are harvested will be revegetated/seeded with a Lake County approved native grass seed mix to stabilize slopes and avoid runoff of sediment into adjacent habitat areas. No new roadways are proposed as part of the project.

TABLE 1: Size of the disturbed areas assoc. with project development shown on Plate 4.

Cultivation Area	Size
Outdoor Garden Total	0.99 acre (43,120 sq/ft)
Mixed Light Greenhouse	1.01 acre (44,000 sq/ft)
Roads, buildings and misc. grading	2.5 acre (108,880 sq/ft)
Total Disturbed Area	**4.5 ac (196,000 sq/ft)**

Table 2: Schedule for Project Development

Project Development	Projected Start Date	Projected Completed Date
Develop Outdoor Cultivation Area	March -April 2019	June-July 2020
Build Greenhouses	June 2020	August 2020
Ancillary Building Development	June 2020	August 2020
Cultivate Outdoor Cannabis	April 2020	April-Nov seasonal
Cultivate Indoor Cannabis	September 2020	Ongoing
Culvert Replacement	June 2020	July 2020
• **All dates are pending Lake County permit approval.**		

1.3 Methods

This SMP was developed using a combination of site visits performed by HES and PEC at various time points in 2019, as well as aerial imagery and online database analysis by HES staff in 2019. Online and print resources consulted include the U.S. Fish & Wildlife Service National Wetlands Inventory, the CDFW California Natural Diversity Database (CNDDB 2019) system, the USDA Natural Resources Conservation Service (NRCS 2019) Soil Web system, various topographic and geologic maps prepared by the U.S. Geological Survey (USGS 2018).

Field activities performed by Hurvitz Environmental and PEC included performing an inventory of all jurisdictional water features including classifiable watercourses and ditches, all culverts and water crossings, potential wetlands and riparian corridors, vernal pools and isolated springs, domestic wells and water diversions, domestic septic and wastewater treatment facilities, commercial water sources and graywater treatment facilities, water and chemical storage facilities, rates and quantities of chemical and water use, timing of cultivation and chemical application, and potential sediment transport and erosion issues that may be covered by either the North Coast Regional Water Quality Control Board (RWQCB) Order No. R1-2015-0023 or State Water Resources Control Board (SWRCB) General Order WQ 2017-0023-DWQ. All cultivation areas, storage areas, green waste areas, and all roads used to access these areas were inspected by staff qualified in natural resource and erosion assessments. Some of these features, and some additional features not subject to California Department of Fish & Wildlife (CDFW) jurisdiction, are potentially in need of remediation or monitoring and are discussed as part of this SMP.

2.0 SEDIMENT MANAGEMENT

2.1 Stormwater Management

As discussed, the proposed cultivation sites would require the clearing of two blocks of older grape vineyards which currently are low yielding and are not contracted for purchase by any wineries or other parties. The proposed cultivation sites will not require the removal of any trees or bushes. Upon approval of Major Use Permit, vineyard removal would begin. Irrigation lines, trellis stakes and wire would be pulled for recycling and then the vines would be bull-dozed for removal. It is anticipated that this work will commence as early as March-April 2020. This work would require some sediment stabilization and employment of BMPT's. Sediment controls are structural measures that are intended to complement and enhance the selected erosion control measures and reduce sediment discharges from active construction areas. Sediment controls are designed to intercept and settle out soil particles that have been detached and transported by the force of water. The sediment control measures recommended for this site are discussed throughout this Section of the SMP and are also discussed in **Table 3 – Inspection Schedule**. In general, the BMPT's include loose straw distributed to the south (downslope) from the cultivation area to avoid fugitive dust and rain-mediated sediment transport to the intermittent creek onsite. Straw Waddles placed on the downslopes of all graded areas during site development procedures, this project will additionally incorporate sediment control measures as needed including but not limited to common sediment management techniques such as silt fencing, sediment traps, fiber rolls, gravel bag berms, sand bag barriers, and straw bales (Plate 2).

2.1.1 Roads & Access Routes

The parcel is accessed via a packed gravel and dirt road that enters the property by branching to the north off of Voigt Road. The road passes through some vineyards before crossing the intermittent creek onsite and arriving at the existing 5,000 square foot agricultural barn building. We understand that this area may also be designated as employee parking. From there the proposed cultivation areas are within 200 feet to the north and are accessed by an entry road proposed on the west side of the existing vineyards. Site Access Points, Roads, Creek Crossings, and proposed parking areas are designated on **in Appendix B**.

2.1.2 Road Conditions

Roads and culvert crossings will be maintained according to a set schedule. The roadbed is relatively flat, in good condition and shows no evidence of washouts or gullying. There are no existing roadside ditches or rolling dips however the northern portion of the site gently slopes southeast towards the intermittent creek onsite and the roadways show no evidence of scour or

sediment transport. No additional armoring is recommended however we recommend that the straw waddles be placed along the northern sides of the intermittent creek and near the culvert crossing during the rainy season or periods heavy road use to minimize the potential for sediment transport off the road feature to the receiving waters onsite.

The outdoor grow operations will be operating seven (7) days per week; 9am-5pm Monday through Friday; and 12-5 pm Saturday and Sunday. Deliveries are anticipated 1-2 per day via pick-up truck or box van. During site construction there will be two shifts with approximately 2-8 people per shift. After construction there will be 1 shift of 5-8 people, dependent upon whether harvesting is occurring. During peak growing season and harvesting, two shifts may be necessary to meet the work demands. Therefore, estimated vehicle traffic per day during the active growing season is approximately ten (10) commuter transits and during the construction periods it estimated to average twelve (15) commuter transits (one transit being an in-and-out trip) in a 24-hour period. In addition to commuter transits during the construction periods the roads will also be subjected to periodic heavy equipment transit. Heavy equipment transit is expected to be short lived but may include as many as 20 trips in a single day. It is recommended that the roads be redeveloped prior to construction and after construction activities are completed.

Stormwater is generally drained from the roads using a crowned surface, however other locations onsite make use of out-sloped roadways into intact vegetation. There are no armored ditches although if any erosion is detected in or around the swales some small armor such as small (e.g. 8") rip-rap, ditch relief culverts, rolling dips, and other drainage devices could be implemented including but not limited to French or buried drains, and vegetated swales, as described in greater detail in §2.3 below. The number, spacing, and location of drainage features shall be determined by consultation with a qualified environmental professional and generally should not be more than 20 feet apart for slopes of 5% of less, and not more than 10 feet apart for slopes between 5% and 10%.See Weaver et al. (2015) *Handbook of Forest, Ranch & Rural Roads* for description of appropriate road resurfacing and erosion prevention measures.

Other erosion and sediment capture methods used can include erosion control blankets, geotextiles, straw mulch, hydro-mulch, wood mulch, vegetation preservation, vegetation planting, hydroseeding, vegetated swale, check dams, fiber rolls (wattles), silt fences, or any other material as long as it is 100% biodegradable. Stevenson Supply in Windsor is a good place in Sonoma County to purchase a wide selection of biodegradable erosion control materials.

2.2 Stormwater Management

Applicant shall obtain permission from relevant local and state agencies for construction projects that disturb soil including for new garden expansions and site preparations. There are no steep

slopes in the project area where construction activities are proposed, but erosion control measures are still identified. Erosion control, also referred to as soil stabilization, consists of source control measures that are designed to prevent soil particles from detaching and becoming transported in storm water runoff. Erosion control BPTCs protect the soil surface by covering and/or binding soil particles. This project will implement the following practices for effective temporary and final erosion control during construction:

- Preserve existing vegetation where required and when feasible.
- Apply temporary erosion control to exposed areas. Reapply as necessary to maintain effectiveness.
- Implement temporary erosion control measures at regular intervals throughout the defined rainy season to achieve and maintain stability. Implement erosion control prior to the defined rainy season.
- Control erosion in concentrated flow paths by applying erosion control devices as described in **Appendix A.**
- See Weaver et al. (2015) *Handbook of Forest, Ranch & Rural Roads* for description of appropriate design of stormwater ditches and other erosion prevention measures.

2.3 Sediment & Pollution Mitigation Activities

The following is a summary of measures taken to stabilize landscape features, cultivation areas, access roads, outbuildings, and water features identified onsite that may potentially discharge sediment or pollutants to waters of the US. All features known at the time of the last site visit that were potentially in need of attention are also noted. The time frame for treatment indicates high priority for projects that have a possibility of discharging sediment or pollutants in the next month, medium for projects that may have this possibility of discharges over the next 6-12 months, and low that may have the possibility of discharges at some time greater than 12 months in the future. Medium and high priority projects will be attended to during the dry season of 2020 and be completed before any significant rains, or October 15, whichever is earlier.

Specific erosion control BPTCs that can be implemented are listed here and in **Appendix A** and may include preservation and enhancement of existing native vegetation, hydraulic mulching, hydroseeding, soil binders, straw mulch, geotextiles and mats, wood mulches, and vegetated swales. Erosion and sediment control diagrams are available online and through consultation with an erosion control professional that indicate the recommended type and placement of these various erosion control devices.

The major areas of erosion potential during operation of the site are: the unpaved access roads and areas prepared for garden construction, and water tanks. Sediment from these sources could be transported during storm events or from irrigation system leaks or releases

The following erosion and sediment control measures will be implemented:

- Implement effective wind erosion controls including fencing.
- Provide effective stabilization for all disturbed soils and other erodible areas prior to a forecasted storm event.
- Maintain effective perimeter controls and stabilize all site entrances and exits to sufficiently control discharges of erodible materials from discharging or being tracked off the site.
- Divert run-on and stormwater generated from within the site away from all erodible materials.
- If sediment traps or basins are installed, ensure that they are working properly and emptied of accumulated sediment and litter.

The following are potential sources of sediment pollution:

- Areas where ground will be disturbed. In the case of this site, it is primarily the proposed construction of the cultivation area and ancillary buildings and maintenance on the existing site access road.
- Importation and stockpiling of soil and amendments.
- Compost Piles

2.3.1 French Drains for Roadside Ditch Relief

French drains can be installed along roadways by trenching to a depth of approximately 12-18", installing perforated 8" diameter plastic pipe, and backfilling with coarse rock. These measures may be taken in several locations around the property including on the existing 5,000 square foot Ag. Barn and any new proposed structures. Outfalls should be into intact vegetation and stabilized with light 6" crushed rock armor and silt fencing. A permanent fix for locations where soil may potentially erode into the intermittent creek are vegetation barriers or vegetated swales. These kinds of features should be designed using a combination of high-density native plantings, temporarily stabilized with geotextiles and straw wattles. **Priority for this activity is Medium.**

2.3.2 Silt Fencing, Straw & Wattles in Cultivation Area

Silt fencing or wattling is recommended in several locations however loose straw is also acceptable to be deployed around the perimeter of the outdoor garden and greenhouse structures (**Appendix B**). There is no silt fencing recommended around the contours of the cultivation area however if there are any sediment discharges there should be fencing installed and kept on hand. Straw wattles and loose straw should additionally be placed in the areas identified that have a potential for erosion. **Priority for this activity is Medium.**

Biological BPTCs use vegetation and microbial degradation to filter or clean stormwater before it leaves the site. Specific measures include vegetated swales, vegetated buffer strips and

medians, and bioretention depressions. Vegetated swales and/or buffer strips should be placed at downslope perimeters of the cultivation areas and along the main access road. Regular maintenance of these swales is recommended to keep them free from debris and fully vegetated. Additional bioretention strategies can be found online or through consultation with an erosion control or revegetation specialist. **Priority for this activity is Medium.**

2.3.3 Culvert Replacement

There is one (1) identified culvert/watercourse crossings onsite that will need to be addressed through the CDFW LSA application process. HES has prepared a 100-year peak flow assessment and design plan for the replacement of the existing culvert onsite. Once the LSA is signed, the installation of the new culvert will begin during the ensuing dry season. This is tentatively scheduled for the summer of 2020. **Priority for this activity is Medium.**

2.3.4 Planting and Stabilization of Slopes

There are no steep slopes onsite or on adjacent near-site properties that are in need of slope stabilization measures such as erosion control blankets, hydroseeding, or woody native species planting. The site is generally stabilized by established planted vineyards that covers almost all of the parcel (excluding the existing Ag barn and road ways and small abandoned orchard), however, since ground disturbance is required as part of the site development and cultivation activities some additional revegetation is recommended using a combination of biodegradable geotextiles or mulch or hydroseeding. Maintenance of the roadbed is also helpful in proactively preventing rilling on the feature even though no erosion was evident. The site can be enhanced if desired by planting with native woody vegetation. **Priority for this activity is Low.**

2.3.5 Wattles & Planting Around Culvert Edges

Applicant should maintain a supply of biodegradable straw fiber rolls or "wattles" onsite in case it is required, and also employ native plantings wherever possible, to prevent erosion before it occurs. Plantings are most effective if performed during the winter and spring in order to stabilize all areas near the roadside while the soil is moist. Areas of particular focus should be near inlets of the onsite culvert where roadside water may begin eroding near the headboard, downstream of the outfalls of culvert, and around the edges of intermittent creek. Straw wattles should be installed early and then woody vegetation planted in the spaces between wattles on slopes if they are required to be created.

3.0 WATER SUPPLY MANAGEMNET

3.1 Water Sources, Storage & Use

Water for cultivation site irrigation would come from an existing well, and proposed well, located on the property. The existing well is a 12-inch diameter steel cased domestic well located near the center of the site as shown on Plate. To ensure needed water supply during peak season usage, a new well will also be permitted and drilled. A water storage and treatment system will also be installed to address water quality demands specific to the applicants nutrient mixing requirements. A minimum of three (3) 10000-gallon storage tanks; two (2) 5000-gallon; and, (2) 2500-gallon water storage tanks will be needed for well water settling and for the water treatment and irrigation systems. Access to the water storage tanks would be made available for emergency use by Lake County Fire and CalFire for fire management purposes.

3.1.1 Irrigation Methods & Rates

Water for irrigation is obtained from the sites domestic well that supplies the entire farm including continued vineyard irrigation. Water application rate for cannabis is expected to be approximately 2.5 acre-feet/year for approximately 1-acre of outdoor cannabis irrigation and approximately 2.5 acre-feet/year for 40,000 square feet of greenhouse space. During peak season monthly usage rates are approximately 175,000 gallons/month. An additional 5,000 gallons are dedicated in water storage tanks at all times for fire suppression activities.

Hand and/or drip irrigation is implemented by the Applicant which should ensure that no water is lost to throughflow and wasted, and that a minimal amount of water is lost due to evaporation and leaching. Inputs of nutrient fertilizers are minimized, as described in greater detail below and in the attached BPTCs. Water conservation practices are recommended including the use of driplines (instead of spray irrigation), mulching, soil moisture meters, weather monitoring, etc. to minimize discharge of irrigation water nutrients. Measures will be implemented to provide dust control and prevent discharges from dust control activities and water supply equipment such as mulch, water application, and hydroseeding. Water application rates will be minimized as necessary to prevent runoff and ponding and water equipment leaks will be repaired immediately. Regular inspection of drip and irrigation lines will mitigate the potential for unplanned discharges of pollutants from irrigation lines and other water sources.

3.1.2 Wastewater

Residual water is produced at an effective rate of zero (0) gallons per minute during irrigation due to the drip and hand watering methods used. Washout areas and other incidental non-

irrigation and non-domestic uses are limited to approximately one hundred fifty (150) gallons per week.

No septic systems currently exist onsite therefore restrooms will be provided by portable bathrooms that will be maintained by a licensed sanitation company. Portable bathrooms and handwash stations will be situated in at least two (2) locations onsite including the employee parking areas, and next to the proposed cultivation area. The bathrooms will be serviced at appropriate frequency as deemed necessary but at a minimum of twice a month.

4.0 CHEMICAL & MATERIALS STORAGE

4.1.1 Source Assessment

Organic farming and integrated pest management are considered Best Practicable Treatments and Controls (BPTCs), and are recommended for this cultivation operation as much as possible. Weed control using mechanical control methods (mulching, weed mats, hand pulling or hoeing or line trimming of weeds) are recommended instead of use of herbicides. The following table lists potential activities and materials that may be used at a cultivation operation and the corresponding pollutants (other than sediment).

TABLE 2: Potential non-sediment sources of pollutants

Activity	Pollutant
Vehicle and equipment lubrication and refueling	Petroleum hydrocarbons, volatile organic compounds (VOCs)
Road paving	Petroleum hydrocarbons, VOCs
Concrete pouring	Portland cement, masonry, and concrete products, muriatic acid
Road base and subbase material	Non-native specie seeds, toxic substances
Gardening materials and wastes	Pesticides, nitrates, phosphates, heavy metals
Treated lumber (materials and waste)	Arsenic, copper, other metals, creosote
Material packaging	General litter
Portable toilets & domestic waste	Septic waste, fecal bacteria, food waste

It is the policy of the Applicant to use only organic-certified pesticides or herbicides. Organic pesticides will be used at this site, as needed. The California Department of Pesticide Regulation has developed a brief synopsis of appropriate pesticide usage called *Legal Pest Management Practices for Marijuana Growers in California* which can be found as Attachment D in Regional Board Order R5-2015-0113.

Granular fertilizers consist primarily of 50-pound bags of organic soil amendments. Granular fertilizers and soil amendments will typically be mixed in with the soil at the beginning of the planting cycle. Liquid amendments consist primarily of 5-gallon buckets of fertilizer. Plastic tubing and driplines are used to gravity-feed the water, liquid fertilizer, and compost tea to the plants. Any pesticides or herbicides are applied by hand using a spray tank.

4.1.2 Chemical Inventory

The following amounts of chemicals may be stored onsite:

Common Name	Chemical Name	%	CAS#	Form	Quantity Stored	QTY. in Case	Haz Classes
Azaguard	Azadirachtin	3%	70299-17-AA	L	5 gal	1 GAL	N/A
Double Nickle	Bacillus amyloliquefaciens	98.85%	68038-60-8	L	2 gal	1 GAL	N/A
Sulfur DF	Sulfur	80-<90%	7704-34-9	S	1 bag	55lb Bag	N/A
Syl-Coat	Polyethner-Polymethy silioxane-copolymer and Polymer	100%	2935-50819	L	5 gal	1 GAL	N/A
Isopropyll Alcohol	Isopropyll Alcohol	70%	67-63-0	L	5 gal	4 gal	: H225 - Highly flammable liquid and vapour H319 - Causes serious eye irritation H335 - May cause respiratory irritation.
Gasoline	Gasoline	100%	86290-81-5	L	5 gal	5 gal	NFPA Hazard ratings: HEALTH: 1 Slight FIRE: 3 Serious REACTIVITY: 0 Minimal

Diesel	Diesel	100%	68476-34-6	L	5 gal	5 Gal	NFPA Hazard ratings: HEALTH: 0 Slight FIRE: 2 Moderate REACTIVITY: 0 Minimal
Propane	Liquid Propane Gas	100%	74-96-6	LPG	33.5 gal	33.5lbs	Flamable Gas Category 1

During a typical growing season, the following nutrients and fertilizers may be present onsite.

- Granular fertilizers/soil amendments
  - Bat guano nitrogen – 40 pounds
  - Sea bird guano phosphorus – 40 pounds
  - NPK fertilizer – 200 pounds
  - Kelp powder – 100 pounds
  - Trace minerals – 100 pounds
- Liquid fertilizers/soil amendments
  - Biologic Solutions liquid grow – 50 gallons
  - Biologic solutions liquid bloom – 50 gallons
- Compost Tea
  - Worm castings – 10 gallons
  - Humus – 10 gallons
  - Seaweed extract – 5 gallons
  - Humate – 20 gallons
  - Fish hydrolysate – 40 gallons
  - Bacillus subtilis – 2.5 gallons
  - Mycorrhizae – 5 gallons
  - Azospirillum – 2.5 gallons
- Pesticides
  - Grandevo – 20 pounds
  - Venerate – 10 gallons
  - Regalia – 5 gallons
  - Botanigard – 6 quarts
  -

All chemicals, fertilizers, and nutrients will be stored with secondary containment and within the existing Ag Barn structure until new ancillary buildings are constructed.

The following mechanized equipment will be used: pickup trucks, and occasionally a farm tractor will be used to disk the cultivation site. Should vehicle and equipment fueling or maintenance be performed in the project area, BPTCs are recommended in **Appendix A**.

4.1.3 Spill Prevention & Response

Nutrients used in the cultivation operation will be stored in the designated area inside the existing agricultural barn proximate to the cultivation site (**Appendix B**) and outfitted with secondary containment system such as approved tub or metal basin, thus representing a low potential to escape confinement and pollute. Gasoline will be kept in approved containers during daytime use Gasoline and other fuels will be placed in the agricultural barn at the end of each day and kept in secondary containers when not in use.

The following spill and leak prevention and response measures will be implemented:

- The Applicant will establish procedures and/or controls to minimize spills and leaks.
- Develop and implement spill and leak response procedures to prevent industrial materials from discharging through the stormwater conveyance system. Spilled or leaked industrial materials will be cleaned promptly and disposed of properly.
- Identify and describe all necessary and appropriate spill and leak response equipment, location(s) of spill and leak response equipment, and spill or leak response equipment maintenance procedures.
- Identify and train appropriate spill and leak response personnel.

4.1.4 Material Handling & Waste Management

Non-*Cannabis* waste bins and containers will be stored in the barn near the nutrients. Spill kits are also stored in this area of the barn. Other areas designated for compost and organic material destruction are also located to the west of the cultivation areas in an abandoned orchard onsite. This area will be demarcated for temporary storage prior to disposal at an approved waste management site (**Site Management Plan Inspection Map – Plate 4**). In addition to the BPTCs listed in Appendix A, the following material handling and waste management measures will be implemented at all times:

- Prevent or minimize handling of chemical/industrial materials or wastes that can be readily mobilized by contact with stormwater during a storm event.
- Contain all stored non-solid chemical/industrial materials or wastes (e.g., particulates, powders, shredded paper, etc.) that can be transported or dispersed by the wind or contact with stormwater during handling.
- Cover waste disposal containers and material storage containers that contain chemical/industrial materials when not in use.
- Divert run-on and stormwater generated from within the site away from all stockpiled materials.
- Clean all spills of chemical/industrial materials or wastes that occur during handling in accordance with the spill response procedures).

- Observe and clean as appropriate, any outdoor material or waste handling equipment or containers that can be contaminated by contact with chemical/industrial materials or wastes.

A sandbag barrier with plastic sheeting can be placed around temporary storage areas to prevent stormwater run-on from adjacent upstream areas. Sheds or shipping containers or the Ag barn can be used to store hand tools, small parts, and most cultivation materials. Very large items will be stored in the open in the general storage areas. Such materials should be elevated with palettes or cement blocks to minimize contact with stormwater. Spill clean-up materials, material safety data sheets, a material inventory, and emergency contact numbers will be maintained and stored in the Ag barn. To reduce or eliminate pollution of storm water from stockpiles of soil and cultivation materials, stockpiles will be surrounded with sediment control measures as needed. Plastic covers will be used, as needed, before rain events or before strong winds begin.

BPTCs will be implemented to minimize storm water contact with waste materials and prevent waste discharges. Solid waste should be removed and disposed off-site at least monthly at an appropriately designated receiving facility. Any hazardous wastes will be stored in approved containers inside secondary containment and inside the Ag barn onsite. Hazardous wastes will be appropriately and clearly marked in containers and segregated from other non-waste materials.

4.2 Non-Stormwater BPTC

Non-stormwater discharges (NSWDs) consist of discharges which do not originate from precipitation events. Examples include, but are not limited to, discharges of irrigation systems, vehicle wash water, sanitary wastes, concrete washout water, paint wash water, or pipe testing water. Other concerns are the release of chemicals to the ground surface.

4.2.1 Nonpoint-Source Pollution

We did not identify any pathways via which pollutants could enter blue-line streams, storm drains, domestic wells or other water conveyance mechanisms that may convey pollutants or sediment offsite during wet weather. The primary onsite source of pollutants is from incidental drip from vehicles and other uses and structures incidental to vehicle traffic or project development. The operators of the site do not expect a large increase in the number of employees or the number of service contractors visiting the property, thus there is predicted to be only a small increase in pollution due to nonpoint sources compared to before versus after commercial licensure, nor is there predicted to be any greater increase in discharge compared to a normal operating commercial vineyard on a parcel of a similar size.

4.2.2 Point-Source Pollution

There are no predicted point sources of pollution. All watering is by hand or drip irrigation, thus the amount of runoff to the ground from this method is negligible. Plants are grown in native soil, thus there will be almost no exposure of the environment to the cultivation waters. There are no other discharges of wastewater or solid pollutants planned for the cultivation activities thus the impacts to water quality from point sources are negligible.

4.3 Legacy Waste

The site has an existing 500- gallon above ground tank (AST) that stored diesel fuel and was formerly used to fuel heavy equipment related to the vineyard management onsite. The AST is located on the north side of the existing agricultural barn and approximately 100-feet north of the intermittent creek onsite. We understand that the vineyard management company that manages the site vineyards will be re-locating the AST to an adjacent property to the west and that the relocation is scheduled to happen before any cannabis related site development occurs.

During our site inspection on October 14, 2019, we noted that the diesel AST had secondary containment and did not appear to be leaking. No visual signs of spillage or leakage were evident on the ground surface proximate to the AST. The diesel AST is not considered a hazard to this proposed project since it is scheduled for removal and will not be utilized by the Applicant. However, we recommend that after the tank is removed that a qualified person evaluate the potential for contaminated soil proximate to the AST location. If evidence of soil contamination is present then soil samples should be collected an evaluated. If soil sample analysis confirms soil contamination then the sample data should be submitted to the RWQCB for review and assessment.

5.0 WINTERIZATION MEASURES

5.1 Wet Weather Pollution Mitigation

5.1.1 Preventative Maintenance

A series of winterization BPTC measures will be taken in the early fall and finalized before the onset of the first large rains of the winter. The following preventative measures will be implemented in order to maintain the property ready for wet weather:

- Observe all outdoor areas associated with the cultivation activity including stormwater discharge locations, drainage areas, conveyance systems, waste handling/disposal areas, and perimeter areas impacted by off-site materials or stormwater run-on to determine housekeeping needs. Any identified debris, waste, spills, tracked materials, or leaked materials will be cleaned and disposed of properly.
- Minimize or prevent material tracking.
- Minimize dust generated from industrial materials or activities.
- Ensure that all site areas impacted by rinse/wash waters are cleaned as soon as possible;
- Contain and cover all stored non-solid chemical/industrial materials or wastes (e.g., particulates, powders, shredded paper, etc.) that can be transported or dispersed via by the wind or contact with stormwater.
- Prevent disposal of any rinse/wash waters or industrial materials into the stormwater conveyance system.
- Minimize stormwater discharges from non-cultivation areas (e.g., stormwater flows from employee parking area) that contact operational areas of the site.

5.1.2 Good Housekeeping

The following good housekeeping measures will be implemented:

- Identify all equipment and systems used outdoors that may spill or create NSWD of pollutants.
- Regularly observe the identified equipment and systems to detect leaks, or identify conditions that may result in the development of leaks.
- Establish an appropriate schedule for maintenance of identified equipment and systems.
- Establish procedures for prompt maintenance and repair of equipment, and maintenance of systems when conditions exist that may result in the development of spills or leaks.

5.2 Maintenance & Monitoring Measures

As part of this SMP, Applicant agrees to a monitoring plan that at a minimum provides for regular self-inspection of the site before and after rain events, preparation of a checklist to confirm placement and efficacy of pollution and sediment mitigation measures, provide a timeline for completion of all scheduled maintenance tasks, documentation of progress on all plan elements, and supports as-needed inspection of the site by Water Board staff. Applicant will also submit to the Water Board an annual report each year if requested that documents implementation and effectiveness of management measures conducted during the previous year.

Monitoring of the site includes visual inspection and photographic documentation of each feature of interest listed on **Table 3** and shown on **Plate 4,** with new photographic documentation accompanying any notable changes to the feature of interest or the site in general. Applicant will clean out culverts and sediment capture features. All site features must be monitored annually at a minimum, and data collected in a centralized location. Sites shall additionally be monitored at the following times to ensure timely identification of changed site conditions and to determine whether implementation of additional management measures is necessary to prevent, minimize, and mitigate discharges of waste to surface water: 1) just prior to October 15 to evaluate site preparedness for storm events and storm water runoff; 2) following the accumulation of 3" of total precipitation or by December 15, whichever is sooner; 3) following any rainfall event with an intensity of 3" precipitation or greater in a time span of 24 hours or less.

5.3 Other Mitigation Measures

Some revegetation may need to take place either before or after the winter rainy season. Native species should be used in all circumstances. Applicant will revegetate other areas of the property deemed to be potentially susceptible to erosion or subsidence. There are no areas currently in need of revegetation, however after replacement of the onsite culvert crossing there may need to be additional vegetation placed around the margins of the culvert headwalls. In other areas particularly around the margins of the unnamed Class II streamcourse and associated wetlands running through the center of the parcel, there currently exists a continuous layer of herbaceous vegetation such that the chances of overland sediment transport from the vineyards into any jurisdictional waters is currently low. If in the future vegetation is disturbed or dies or is in need of additional vegetation buffering, an area-appropriate mix of native herbaceous species can be broadcast seeded or hydroseeded into the area, and used in conjunction with 100% biodegradable straw wattles and loose straw. An appropriate native seed mix may include the following species: purple needlegrass (*Stipa pulchra*), blue wildrye (*Elymus glaucus*), blue fescue (*Festuca idahoensis*), Chinook brome (*Bromus laevipes*), Western fescue (*Festuca occidentalis*), squirreltail grass (*Elymus elymoides*), California fescue (*Festuca californica*), California oat grass (*Danthonia californica*), turfted hairgrass (*Deschampsia cespitosa*), Northern wheatgrass (*Elymus lanceolatus*), awned melic (*Melica aristata*), California melicgrass (*Melica californica*), and Oregon bentgrass (*Agrostis oregonensis*). Appropriate woody species can be used to anchor plantings and wattles and can include the following native species: tanoak (*Notholithocarpus*

densiflorus), toyon (*Heteromeles arbutifolia*), Yerba Santa (*Eriodictyon californicum*), common manzanita (*Arctostaphylos manzanita*), hoary manzanita (*Arctostaphylos canescens*), buck brush (*Ceanothus cuneatus*), deerbrush (*Ceanothus integerrimus*), wavy leaf ceanothus (*Ceanothus foliosus*), mountain mahogany (*Cercocarpus betuloides*), and scrub oak (*Quercus dumosa*).

6.0 MAINTENANCE & MONITORING REQUIREMENTS

6.1 Inspection, Maintenance & Reporting

Records will be kept quarterly of any erosion issues and planned remediation actions. These quarterly reports will be augmented with notes before and after major rain events, and additionally before and after the rainy seasons usually beginning around November 15 and ending around April 31. These quarterly and supplemental reports shall be combined each year into an annual report with a narrative portion and a tabulation of all activities performed and future planned maintenance and remediation activities. Annual reports must be submitted to the State Water Resources Control Board (SWRCB) via the online portal annually by March 1 of each calendar year. Forms submitted to the SWRCB shall be submitted electronically if at all possible. We have prepared and attached a general site inspection form for the site that can be used for periodic inspection and that can be modified as site conditions change **(Appendix C – Site Monitoring Form)**.

6.2 Required Inspections and Reports

Applicant shall conduct pre-winter implementation inspections by November 1 of each year to assure that BPTCs are in place and secure prior to the winter period. The *Cannabis* General Order also requires an effectiveness inspection to be performed after April 1 and before June 15 to assess the effectiveness of BPTCs and to identify any additional measures or adaptive management steps necessary. The *Cannabis* General Order also requires cultivators to prepare and submit an annual report in the spring of each year. The annual report shall include the date and type of each inspection, the inspector's name, the inspector's findings, and shall describe how the Applicant has complied with the requirements of the General Order for *Cannabis* cultivation.

Cultivators must maintain a copy of the *Cannabis* Cultivation General Order and all BPTCs in Appendix A on all premises where cannabis is being cultivated. An observation station for visual monitoring of water pollution should be identified for the pond in order to monitor the height of the water in the pond on a monthly basis. This station should be inspected regularly as part of the inspection plan.

6.3 BPTC Inspection & Maintenance

Sufficient quantities of temporary sediment control materials will be maintained on-site throughout the rainy season, to allow implementation of temporary erosion and sediment controls in the event of predicted rain, and for rapid response to failures or emergencies, including straw bales, straw and fiber wattles, and silt fencing. A visual monitoring and inspection program is recommended, and an inspection would ideally be performed prior to each qualifying rain event and contain the following focal areas:

- Monitor all storm water drainage areas to identify any spills, leaks, or uncontrolled pollutant sources.
- Review all BPTCs to identify whether they have been properly implemented.
- Fix any storm water storage and containment areas that have leaks and ensure maintenance of adequate freeboard.

During-rain events visual observations (inspections) are recommended at least once each 24-hour period during extended storm events. After each qualifying rain event, the inspector should conduct post-rain event visual inspections to identify whether BPTCs were adequately designed, implemented, and effective, and identify any needed revisions to BPTCs or deployed devices.

6.4 Adaptive Management

This SMP should be periodically revised to update site conditions, cultivation operations, and site layout, and to document changes to BPTCs and the inspection program. Applicant should not be afraid to deploy erosion control measures in excess of those shown in **Table 3 and Plate 4**, although the measures described in this SMP should be considered a minimum. The SMP must be revised by a qualified professional. Note that a significant expansion in cultivation operational area may require a new environmental compliance assessment under the requirements of the California Environmental Quality Act (CEQA) including the need for a new BA and/or LSAA.

7.0 Regulatory Framework

7.1 California Environmental Quality Act

Section 15380(b) of the California Environmental Quality Act (CEQA) Guidelines provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definitions in FESA and CESA and the section of the California Fish and Wildlife Code dealing with rare or endangered plants or animals. This section was included in the guidelines primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on a species that has not yet been listed by either the USFWS or CDFW. Thus, CEQA provides an agency with the ability to protect a species from a project's potential impacts, if it finds that the species meets the criteria of a threatened or endangered species.

7.2 Clean Water Act

Under Section 404 of the federal Clean Water Act, the U.S. Army Corps of Engineers (USACE) is responsible for regulating the discharge of fill material into waters of the United States. Waters of the U.S. and their lateral limits are defined in 33 CFR Part 328.3 (a) and include streams that are tributary to navigable waters and their adjacent wetlands. Wetlands that are not adjacent to waters of the U.S. are termed "isolated wetlands" and, depending on the circumstances, may also be subject to Corps jurisdiction. In general, a Corps permit must be obtained before placing fill in wetlands or other waters of the U.S. The type of permit depends on the acreage involved and the purpose of the proposed fill. Minor amounts of fill are sometimes covered by Nationwide Permits, which were established to streamline the permit process for projects with "minimal" impacts on wetlands or other waters of the U.S. An Individual Permit is required for projects that result in more than a minimal impact on jurisdictional areas. The Individual Permit requires evidence that fill of jurisdictional areas is minimized to the extent "practicable" and provides an opportunity for public review of the project.

7.3 California Water Quality Regulatory Programs

Pursuant to Section 401 of the federal Clean Water Act and the state's Porter-Cologne Act, projects that are regulated by the Corps must obtain water quality certification from the Regional Water Quality Control Board (RWQCB). This certification ensures that the project will uphold state water quality standards. The RWQCB sometimes asserts jurisdiction over wetlands that the Corps does not (e.g. certain isolated wetlands) and may impose mitigation requirements even if the Corps does not. The CDFW also exerts jurisdiction over the bed and banks of watercourses and water bodies according to provisions of Section 1601to1603 of the Fish & Wildlife Code. The Fish & Wildlife Code requires a Lake & Streambed Alteration Agreement for the fill or removal of material within the bed and banks of a watercourse or water body.

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Table 3 - Features that Need Inspection and Periodic Maintenance

Map Point	Map Point Description	SMP Section	Temporary BMP	Permanent BMP	Priority for Action	Inspection or Maintenance Required	Inspection Frequency
R-1	Access Road	2/5/6	Gravel road	Gravel road and maintain (June-2020)	Medium	Minimize erosion, clean ditches, gravel as needed	Bi-annual
R-2	Well	3/5/6	Meter Usage no chemical storage or mixing nearby	Meter Usage no chemical storage or mixing	High	Keep area clean don't store materials near well. Install pump saver Meter usage, Install Bollards	Weekly, monthly, annually
R-3	Water Storage	3/5/6	Poly tanks	Poly Tanks	Medium	Inspect for leaks, cracks or settling of soils	Monthly
R-4	Proposed Cultivation Area	1.2/5/6	Agronomic irrigation, mulch	Agronomic irrigation, mulch	Medium	Irrigate at a rate that does not cause runoff. Mulch or seed entire cultivation area after season. Install downgradient waddles by Nov. 1, Inspect irrigation lines for leaks	Daily, Weekly, Annually
R-5	Equipment and material storage	4/5/6	Stored in Ag Barn on Concrete floor	Stored in Ag Barn on concrete floor	Medium	Inspect for leaks or spills maintain orderly and neat storage, Label with MDS onsite	Weekly, monthly, annually
R-6	Bathrooms	3/5/6	Portable bathrooms serviced by Sanitation Company	Installation of bathrooms and septic system	Medium	Perform inspection of portable bathrooms and immediate area for leaks or damage	monthly
R-7	Creek Crossing	2/5/6	Existing Culvert, Seasonal Wattles,	Upgrade culvert with LSA, Seasonal Wattles	High	Perform Monthly inspection remove any debris, install wattles by Oct. 15th and leave until April 1. Upgrade culverts	Monthly
R-8	Compost Pile	4/5/6	Stockpile and berm, cover during rainy season	Stockpile and berm, cover during rainy season	Medium	Maintain piles in a neat and orderly fashion, install berms or wattles and cover when necessary	Monthly
R-9	Intermittent Creek	2/3/5/6	Wattles/ straw, hydro seed by Nov. 1	Plants vegetative barrier with berm, wattles	Medium	Don't store equipment or materials within 100 feet. Install wattles/straw or seed between the creek and cultivation areas or construction site when disturbed	As needed

APPENDIX A:
CANNABIS CULTIVATION BEST MANAGEMENT PRACTICES

Best management practices (BMPs) are designed to prevent, minimize, and control the discharge of waste and pollutants associated with site operations and maintenance for the aforementioned project. Many of these BMPs are considered enforceable conditions under State Water Resources Control Board *Cannabis* General Order No. WQ 2017-0023-DWQ.

A.1 CANNABIS CULTIVATION

- Pesticide and fertilizer storage facilities shall be located outside of the riparian corridor setbacks for structures.
- Pesticide and fertilizer storage facilities shall not be located within 100 feet of a wellhead, or within 50 feet of identified wetlands.
- Pesticide and fertilizer storage facilities shall be adequate to protect pesticide and fertilizer containers from the weather.
- Store all bags and boxes of pesticides and fertilizers off the ground on pallets or shelves.
- If the structure does not have an impermeable floor, store all liquid pesticides and fertilizers on shelves capable of containing spills or provide appropriate secondary containment.
- Routinely check for leaks and spills.
- Have spill cleanup kit onsite to be able to respond to any leaks or spills.
- Inspect planting stock for pests and diseases prior to planting.
- Avoid planting stock with pests and disease and notify the supplier of the planting stock of the infestation.
- Comply with all pesticide laws and regulations as enforced by the California Department of Pesticide Regulation and County Agricultural Commissioner.
- For pesticides with the signal word CAUTION that have listed food uses, comply with all pesticide label directions as they pertain to personal protective equipment, application method, and rate, environmental hazards, longest reentry intervals and greenhouse and indoor use directions.
- For all other pesticides, use must comply with all label requirements including site and crop restrictions.
- Prior to the use of any registered pesticide on *Cannabis*, Operator Identification Number should be obtained from the County Agricultural Commissioner if required.
- Submit monthly pesticide use reports to the County Agricultural Commissioner if required.

- Prior to applying fertilizers, evaluate irrigation water, soils, growth media, and plant tissue to optimize plant growth and avoid over fertilization.
- Apply fertilizers at label rates and no higher.
- Do not apply fertilizers in a way that will result in runoff that may contaminate ground or surface water or escape via airborne drift or fugitive dust.
- Observe riparian corridor setbacks for agricultural cultivation as applicable. These shall be maintained as "no touch" areas and demarcated with appropriate flagging.
- The removal of vegetation is prohibited within riparian setback areas.
- No equipment, vehicles, or other materials shall be stored in the riparian setback areas.
- Composting areas shall not be located in the riparian setback areas.
- Irrigation must be conducted in a manner that does not result in runoff from the cultivated area.
- Any water tanks or storage facilities must obtain permits from the local City or County planning department where required.
- The use of membrane based water bladders is prohibited.
- If using an irrigation system, inspect for and repair leaks prior to planting each year and continuously during the season.
- Irrigation systems shall be equipped with a backflow prevention devices and shutoff valves.
- Recycle or properly dispose of all plastic bags, containers, and irrigation materials.
- Properly dispose of green waste in a manner that does not discharge pollutants to a watercourse. This may be accomplished by composting, chipping, and/or shredding.
- The method of green waste disposal must be documented.
- Used growth medium (soil and other organic medium) shall be handled to minimize or prevent discharge of soil and residual nutrients and chemicals to watercourses. Proper disposal could include incorporating into garden beds, spreading on a stable surface and re-vegetating, storage in watertight dumpsters, or covering with tarps or plastic sheeting prior to proper disposal.
- The method of disposal of growth medium must be documented.
- Compost piles are to be located outside of riparian setbacks for agricultural cultivation and in a manner that will not discharge pollutants to a watercourse.
- If necessary, construct a berm or install fiber roll around compost area to prevent runoff or use straw wattles around perimeter.
- Cover compost piles with tarp or impermeable surface prior to fall rains and continuously throughout the rainy season.

- Leave a vegetative barrier along the property boundary and interior watercourses to act as a pollutant filter.
- Avoid soil disturbance between November 1 and April 15 and during times of active precipitation.
- All exposed and disturbed soil must be covered with a minimum of 2 inches of mulch, such as straw, bark, wood chips, etc., by November 15. Alternatively, establish a thick cover crop over disturbed areas composed of native species.
- Erosion control materials shall be available on site at all times in the form of straw, mulch, wattles, silt fencing, erosion control fabrics, sand bags, or other materials adequate to cover areas of disturbed soil or incipient erosion events.
- In the event of a forecast storm event likely to produce runoff, apply mulch, wattles, or other erosion prevention measures to the disturbed areas prior to rain event.
- Any grading or drainage conducted as part of site preparation shall have permits from local County or City agencies if required.

A.2 EROSION & SEDIMENT CONTROL

- 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 or any predicted rain events.
- Any continuing, approved project work conducted after October 15 shall have erosion control measures completed and up-to-date.
- All erosion control measures shall be inspected daily during severe rain events.
- Erosion control materials shall be, at minimum, stored on-site at all times during approved project work between May 1 and October 15.
- 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.
- Native species appropriate to the local habitat shall be used for all revegetation purposes. 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.
- Upon work completion, all exposed soil present in and around the cleanup/restoration sites shall be stabilized within 7 days.
- The disturbed area will be minimized at all times to only that which is essential for the completion of the project.
- Provide temporary cover over disturbed areas that are not currently being worked on.
- Heavy equipment shall not be used in flowing water.
- Use of heavy equipment shall be avoided or minimized in a channel bottom with rocky or cobbled substrate.
- 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).
- 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.
- When possible, existing ingress or egress points shall be used or work shall be performed remotely from the top of the creek banks.
- Divert runoff away from unprotected slopes or loose soils using a combination of mats, geotextiles, silt fencing, wattling, check dams, sediment basins, vegetated buffers, or rock armor.
- Deploy appropriate erosion control measures such as silt fencing or straw wattles around all temporary exposed piles or soil or surface disturbances.
- All temporary exposed piles or soil or surface disturbances shall have tarping and sand bags or other stabilization materials deployed in order to prevent discharge of sediments in the event of a rain or wind event.
- Geotechnical fabric shall be deployed on all exposed dirt surfaces with a slope of greater than 15% and staked in place during ground disturbing activities, and silt fencing deployed on slopes of greater than 15% where appropriate.

- Sand bags, straw bales, or other devices shall be placed at appropriate locations near and alongside the roadsides and swales in anticipation of large storm events.
- Bioswales and cultivation areas including parking areas shall be maintained free of trash including empty soil and pesticide or fertilizer containers.
- Locations of sediment sources shall be identified during rain events and mitigated where appropriate.
- Protect ditch inlets and outlets from erosion using rock armor.
- Silt fencing shall be installed downstream of rock piles, stockpiles, and temporary soils storage areas.
- Desilting or retention basins shall be installed if the capacity of the natural percolation exceeds the inputs during routine storm events.
- Sediment traps shall be used on all exposed driveway surfaces where natural vegetation is not able to be established.
- Exposed unvegetated surfaces will be graveled where appropriate.
- 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.
- 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.
- 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 recommended.
- Culvert fill slopes shall be constructed at a 2:1 slope or shall be armored with rock.
- 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.
- 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.
- Entrance to the project site shall be maintained in a condition that will prevent tracking or flowing of sediment into the public right-of-way.
- All sediment spilled, dropped, washed, or tracked onto the public right-of-ways shall be removed immediately.
- When necessary, wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-ways.
- When wheel washing is required, it shall be done in an area stabilized with crushed stone that drains into a sediment trap fitted with appropriate erosion control measures.
- To control surface water runoff in and around cultivation areas use fiber rolls or wattling and stake appropriately and perpendicular to the flow path.
- Cover crops should be utilized on all exposed slopes that are not able to be protected by other means.

- Cover crops should be native species as described in the associated biological resources report.
- 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.
- Compact and contour stored spoils to mimic the natural slope contours and drainage patterns to reduce the potential for fill saturation and failure.
- Ensure that spoil materials are free of woody debris, and not placed on top of brush, logs or trees.
- Inspect all roads and culverts regularly for blockages.

A.3 WATER USE & POLLUTION

- Ensure that all appropriate water rights permits are filed with the State Water Resources Control Board.
- Notify the California Department of Fish and Wildlife by submitting a Lake and Streambed Alteration (LSA) notification package if the proposed activities involve substantial diversion from or alteration of the bed or bank of a stream or other waterbody.
- Ensure that all water storage features are permitted from the Department of Water Rights if necessary.
- All refueling and pesticide and chemical storage and transfer shall occur greater than 100 feet away from any swales, creeks, or natural areas.
- All refueling and pesticide and chemical storage and transfer shall occur on top of an impermeable metal or other fabric mat that is no less than 2 inches high on all sides and capable of completely containing any spillage.
- Concrete truck and other vehicles shall not be washed out in natural areas or directly onto soil and shall be washed out into a metal or other impermeable basin and disposed of properly such that no water is discharged to the soil.
- All waste shall be kept in plastic drums with tight fitting lids so that water is not able to make contact with the contents and potentially leach to the environment.
- All pesticide sprays shall occur on windless nights for outdoor facilities.
- Chemical or fertilizer wastes shall never be disposed of into swales or creeks and shall be contained inside closed-roof facilities and designated with appropriate labeling until it is possible to dispose of properly.
- Septic leach fields and graywater mulch fields shall be maintained free of large vegetation and not used for aboveground storage that may impact their proper functioning.
- Chemical contamination (fuel, grease, oil, hydraulic fluid, solvents, etc.) of water and soils is prohibited during routine equipment operation and maintenance.
- 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).
- 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.
- 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.
- 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.
- Spoils shall not be placed or stored in locations where soils are wet or unstable, or where slope stability could be adversely affected.
- Do not locate spoil piles in or immediately adjacent to wetlands and watercourses.
- 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.
- 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.
- Conduct operations on a size and scale that considers available water sources and other water use and users in the planning watershed.
- Implement water conservation measures such as rainwater catchment systems, drip irrigation, mulching, or irrigation water recycling where possible.
- 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.
- 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.
- 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.
- Install float valves on tanks to prevent them from overflowing.
- Place proper lining or sealing in ponds to prevent water loss.

A.4 ROAD MAINTENANCE & GENERAL CONSTRUCTION

- Always limit work to the appropriate work date windows considering wet weather, migratory bird and other biological and environmental constrains that may be placed on the project.
- 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.
- Placement of temporary access roads, staging areas, and other facilities shall avoid or minimize disturbance to habitat.
- If inspection identifies surface rills or ruts, then surfacing and drainage likely needs maintenance. Consultation should be made with a licensed professional to design appropriate erosion control strategies.
- Design of roads should allow for sheet flow of water and use water bars and rolling dips to break up slope length.
- Vehicle speed shall be kept to a maximum of 10 mph while onsite to minimize dust generation.
- All unvegetated and unpaved roadways and vehicle turnarounds shall be graveled to a depth of not less than 1" in order to prevent dust and sediment entrainment.
- Applicant will use geotechnical fabric or similar materials on exposed slopes, and distribute weed-free straw mulch wherever possible on exposed surfaces on the perimeter of all graded roads and graveled areas.
- Roads and the berms alongside all roads shall be maintained free of headcuts, gullies, stutter bumps, and other erosion features capable of discharging sediment to adjacent grassland areas.
- Roads will be graveled with clean rock whenever required to prevent dust and sediment erosion during the wet season.
- Whenever possible, road maintenance activities shall be performed from May 1 to October 15.
- Work performed outside of this window should take extra precautions for winter weather erosion control prevention beyond that which is described in this Plan.
- A 48 hour advance forecast for rain shall trigger a temporary cessation of work, and all soils piles will need to be covered and secured with sandbags or other materials.
- Placement of temporary access roads, staging areas, and other facilities shall avoid or minimize disturbance to habitat.
- 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.
- Spoils and excavated material not used during project activities shall be removed and placed outside of 100-year floodplains.
- 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.
- Position vehicles and other apparatus so as to not block emergency vehicle access.
- After construction is complete, all storm drain systems and culverts shall be inspected and cleared of accumulated sediment and debris.

- Sediment barriers including wattles and silt fencing should be checked for sediment accumulation following each significant rainfall and sediment removed or the feature replaced as needed.
- 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.

A.5 SWALE & VEGETATION MANAGEMENT

- The work area shall be restored to pre-project work condition or better.
- 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.
- Ensure that vegetated swales are properly formed, allow moderate velocity water passage without causing sediment entrainment, and are otherwise functioning properly.
- Create and expand vegetated bioswales where necessary, should additional construction or road maintenance be required, in order to maintain flow without scour.
- All bioswales and other drainage features requiring revegetation will be seeded with native vegetation and lawns and hedgerows maintained in good health and watered in dry years.
- Vegetation including grasses shall be mowed as necessary to create fire breaks and to prevent the accumulation of fuels that would be able to sustain a ground fire.
- All vegetation shall be surveyed on foot once a year by staff and new outbreaks of any invasive weeds identified by the California Invasive Plant Council as noxious or invasive to be removed by the owner or qualified landscaping professionals.
- Channels and swales that show evidence of overland flow and scour (e.g. bare of vegetation) shall be seeded with native grasses such as *Stipa pulchra*, *Hordeum brachyantherum*, *Elymus glaucus*, and *Bromus carinatus*, and kept vegetated at all times.
- If shrubs and non-woody riparian vegetation are disturbed, they shall be replaced with similar native species appropriate to the site.
- 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.
- 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.
- 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.
- Removal of invasive exotic species after construction activities is strongly recommended. Mechanical removal (hand tools, weed whacking, hand pulling) of exotics shall be done in preparation for establishment of native plantings.
- Where permanent soil stabilization is required a locally-appropriate mix of native grass species shall be used such as a mix containing *Nassella pulchra*, *Hordeum brachyantherum*, *Elymus glaucus*, and *Bromus carinatus* or as described in the site's Biological Resources Assessment.
- Entire cultivation site shall be seeded and maintained as a permanent non-tilled cover crop during non-usage times. Straw mulch shall be used where native seeding is not practicable.

- Use mulches (e.g. wood chips or bark) in cultivation areas that do not have ground cover to prevent erosion and minimize evaporative loss.
- Mulch shall be applied at a rate of 4000 lbs / acre and seeding shall be applied to achieve 70% cover in the first year or approximately 200 lbs / acre.
- 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.
- 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.
- 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 relevant state and local water board regulations.