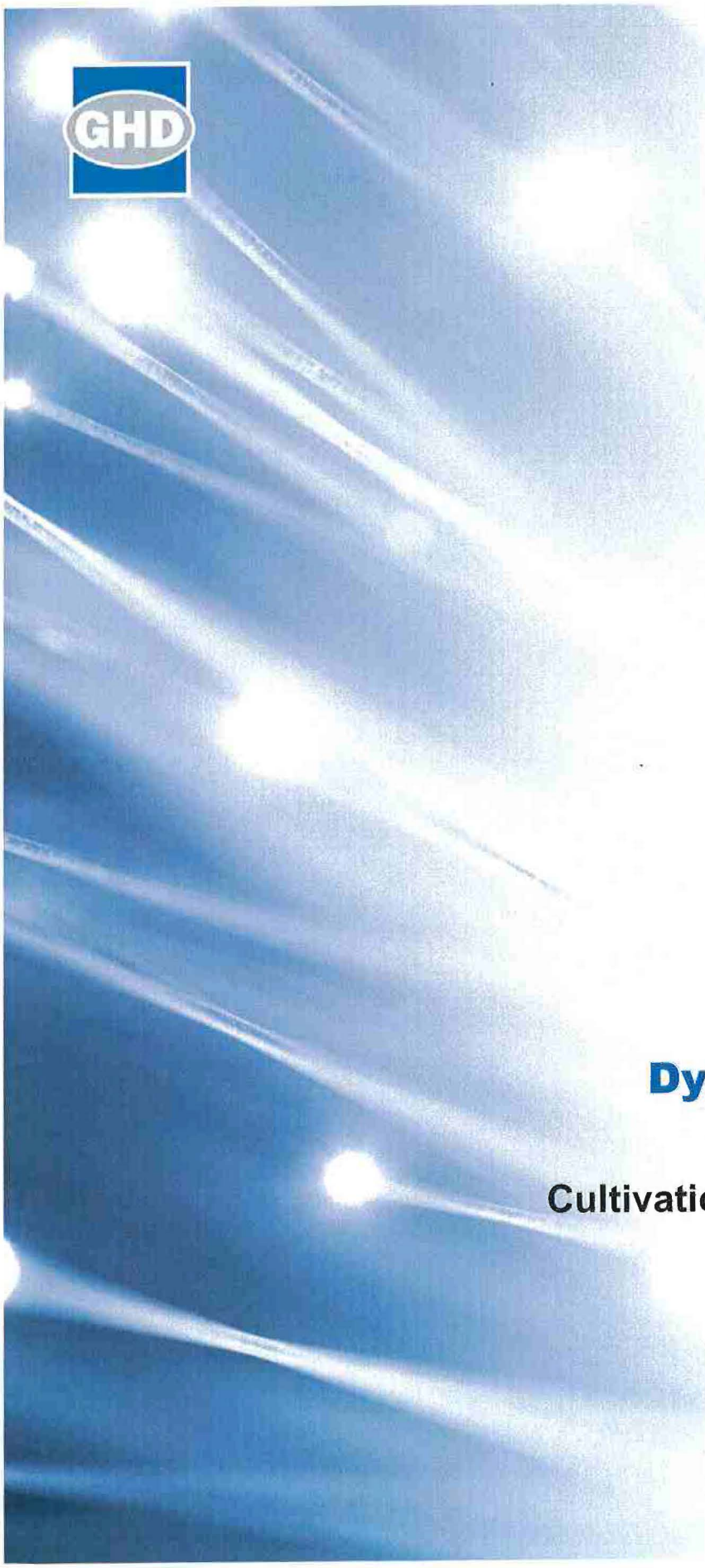


Dyerville Farms, LLC

APN 216-144-17

Cultivation and Operations Plan

November 2018
Revision 0

Plan Summary

On behalf of the Dyerville Farms LLC (Applicant, Operator), GHD has prepared this Cultivation and Operations Plan submittal package, including accompanying appendices, in association with the Applicant's property (APN 216-144-17, project site). The project site is located in an unincorporated area of Humboldt County, California. This Cultivation and Operations Plan is being offered per the requirement of the County of Humboldt Commercial Medical Marijuana Land Use Ordinance.

Project Site

APN 216-144-17
Dyerville Loop Road (site address not assigned)
Garberville, California 95542

Applicant/Operator:

Dyerville Farms, LLC
1271 Evergreen Road, Unit 621
Redway, California 95560

Consultant Contact:

GHD Inc.
718 3rd Street
Eureka, California 95501
Office: (707) 443-8326
Fax: (707) 444-8330
Attention: Kerry McNamee (Project Manager)

Submitted to:

Humboldt County Planning and Building Department
3015 H Street
Eureka, CA 95501

Table of Contents

Appendices

Cultivation and Operations Plan

1. Purpose

This Cultivation and Operations Plan (the Plan) has been prepared on behalf of Dyerville Farms, LLC (Owner, Operator), by agreement and in response to the Humboldt County Commercial Medical Marijuana Land Use Ordinance (CMMLUO) Cultivation Application. The purpose of the plan is to communicate a description of the Owner's agricultural operations to Humboldt County (the County) in support of the Owner's CMMLUO permit.

The Owner has an existing cannabis cultivation operation on the property and has filed and received an Interim Permit for Existing Cannabis Cultivation Humboldt County (see Appendix B). The project site and areas of cultivation are shown on Figure 2 Overview (Figure 2) and Figure 3 Insets A (Figure 3), and Figure 4 Insets B (Figure 4) located in Attachment A. All figures enclosed herein are in conceptual form. These figures are for general reference and may be refined based on data and project scoping information supplied during the ongoing permitting process.

The Owner previously submitted a CMMLUO Cultivation Application to Humboldt County California in December 2016 under the former business name Mountain High Club, LLC. The Owner has subsequently discontinued use of the name Mountain High Club, LLC and is moving forward with cultivation regulatory compliance under the current name Dyerville Farms, LLC. The Owner submitted the Cannabis Application/Permit Transfer Request Form to Humboldt County in July 2018 to process the business name change and permit transfer request (attached in Appendix B). Mountain High Club LLC included two APNs: 216-144-17 and 216-144-03 and a portion of a tributary to Steelhead Creek. The current project, Dyerville Farms, LLC includes one APN: 216-144-17 and does not include the tributary to Steelhead Creek.

According to the December 2016 CMMLUO application submission to Humboldt County, the Cultivation and Operations Plan had not yet been completed. This Cultivation and Operations Plan is proposed as a means to communicate cultivation and operations management practices to Humboldt County by the Owner (Dyerville Farms, LLC).

1.1 Project Location

This Plan has been completed in association with the Owner's property identified as Assessor's Parcel Number (APN) 216-144-17 (project site). The project site is located in an unincorporated area of Humboldt County, California, east of the town of Garberville. The project site is located approximately four miles north of the Dyerville Road intersection with Alderpoint Road. The project site and vicinity (aerial plan view) is depicted on Figure 1 Vicinity (Figure 1) located in Appendix A.

The project site is located at the following address:

Dyerville Loop Road (no street number assigned)

Garberville, California 95542

The following information further defines the project site:

1. APN 216-144-17 – According to the site visits taken by GHD in 2016, photographic documentation and communication with the Owner in 2018, the following uses exist onsite:

residential uses, existing greenhouses, existing outdoor cultivation, existing water storage, livestock and vegetable garden, primary access routes, seasonal spring, groundwater well.

2. Scope of Report

This document is being prepared in support of the Owner's compliance with the Humboldt County CMMLUO cultivation applications and permitting process. As noted in Section 1, the Owner submitted a CMMLUO Cultivation Application to Humboldt County California in December 2016 under the former business name Mountain High Club, LLC. This Plan is proposed to augment the application package submitted in December 2016 and satisfy the Cultivation and Operations Plan requirement.

3. Methods

The methods used to develop this Plan include both field and office components. The office component consisted of reviewing previous reports and plans prepared for the site, as well as the following agency databases and resources:

1. Soil maps from the Natural Resources Conservation Service (NRCS) Web Soil Survey
2. Department of Conservation and California Department of Forestry and Fire Protection (CAL FIRE) Watersheds Mapping (North Coast Watershed Mapping, DMG CD 99-002, 1999)
3. Wetlands inventory from the United States Fish and Wildlife Service (USFWS) National Wetlands Inventory Mapper) and Satellite Imagery.

In addition to the above, the office component of Plan preparation included utilizing geographic information system (GIS) software to generate base maps. The GIS maps generated for this Plan are used to depict the location of all roads, watercourses, wetlands, cultivation sites, structures, boundaries and other issues of concern in context with a watershed scale. The GIS maps for the project site are located in Appendix A and include the following layers:

1. Satellite, topography
2. Watercourses
3. NRCS soils
4. Buildings
5. Cultivation sites

The initial field component completed in association with this Plan took place in February and August of 2016 in association with cultivation permitting compliance undertaken by the Owner, including the NCRWQCB Order No. R1-2015-0023 and the County of Humboldt Commercial Medical Marijuana Land Use Ordinance (CMMLUO). Documentation that was produced in 2016 in support of the Owner's cultivation regulatory compliance for the Mountain High Club (which contains the Dyerville Farms LLC property) included the following:

- California Department of Fish and Wildlife Lake and Streambed Alteration Agreement
- County of Humboldt Commercial Medical Marijuana Land Use Cultivation Application
- Notice of Intent for Enrollment under SWRCB Order No. R1-2015-0023 (Tier 2)

GHD has worked with the Owner to verify the components of the above-listed documents that are relevant to the preparation and production of this Plan. Further field components included

investigating the presence of: surface waters and wetlands using visual analysis, and assessing road conditions, and production locations.

The property was assessed on the ground in 2016 by GHD and Owner, as well as remotely in 2018 via photographs, previous documentation from 2016 and communication with Owner for information relating to cultivation, operation, water usage, storage and site vulnerabilities.

Specifically, the following Cultivation and Operations Plan elements, as stated in the July 2016 CMMLUO Cultivation Application checklist, are addressed herein:

- Description of water source, storage, irrigation plan, and projected water use
- Description of site drainage, including runoff and erosion control measures
- Detail of measures taken to ensure protection of watershed and nearby habitat
- Protocols for proper storage and use of fertilizers, pesticides and other regulated products utilized
- Description of cultivation activities (e.g. outdoor, indoor, mixed light)
- Processing Plan
- Identification of number of cultivation cycles (if mixed light cultivation proposed)
- Schedule of activities during each month of the growing and harvesting season, including projected generator use
- Security plan

4. General Project Site Description

The project site consists of a rural parcel, approximately 200-acres in size (199.13 acres according to Humboldt County Web GIS), designated as APN 216-144-17. The project site is typified by forested woodland (mostly oak with fir sapling encroachment in some areas), sloping hillside, ridgetop oak woodland, some flat plateaus, and sparse open grasslands. The site includes an occupied single-family residential structure (residence), an approximately 100-square foot generator storage building (shed), and an 800-square foot nutrient storage building (garage). The area around the residence, including the above-named structures, is defined as the Hilltop Site. The Hilltop Site is situated on a hilltop plateau, with gradually westerly-sloped hillside which increasingly slope north and west into forested lands consisting of shrubs, oak woodlands and limited hydrophytic vegetation near the seasonal spring.

There are two production areas at the project site that were being used for agricultural cultivation at the time of the 2016 site visits, and are confirmed to be the same as current production areas per landowner communication. The Owner confirmed on November 14, 2018 that the location, area, configuration of the existing cultivation areas has not been modified since the 2016 GHD site visit, except as described below. The site observations made by GHD in 2016 are understood to represent current conditions, as confirmed by the Owner, with the exception of the reduction cultivation area as defined herein. As of the writing of this Plan, GHD has not independently verified the CMMLUO permit and related Owner-supplied information.

As of July 30, 2018, the site has an interim permit through Humboldt County for the following cultivation areas:

- 22,380 square feet (sf) of outdoor cultivation (existing)
- 3,270 sf of mixed light cultivation (existing)

The above-noted cultivation areas total 25,650 sf. At the time of the 2016 site visit and CMLLUO cultivation application submission, site existing and proposed cultivation totaled 26,768 sf (19,600 sf of outdoor garden cultivation, 6,050 sf of greenhouse cultivation with some mixed light use, and 1,120 of proposed mixed light greenhouse cultivation), calculated based on field measured area (not based on canopy estimates used by Humboldt County with the County conversion factor). The existing permitted cultivation area (25,650 sf) is a reduction from the 2016 measured cultivation area (26,768 sf).

Appendix A contains Figures showing the project site topography, parcel boundaries, buildings with use identified, storage locations of chemicals use, production area perimeter, cleared and developed areas, surface water conveyances, drainage pathways, roads (no stream crossings present), features scheduled for upgrade including unstable features, points of diversion of water sources (no surficial water diversions present), locations of water pumps and associated facilities, water storage tanks, and human waste facilities.

5. Water Source, Storage, Irrigation Plan, and Projected Water Use

5.1 Water Sources

Water for cultivation, livestock, fire suppression and residential use onsite is sourced from a single groundwater well located on the project site. The location of the well, noted as Well #1, is shown on Figure 4 (see Rocky Outcrop – Figure 4 located in Appendix A). Well #1 was installed in November 2018 and accesses groundwater beneath the project site.

Well #1 is not believed to be hydrologically connected to a subterranean waterway. The lithology of the well boring shows chert and shale beginning at a depth of 47 feet below ground surface to the final depth of 220 feet below ground surface, confirming the assertion that the well is not hydrologically connected to a subterranean waterway. Subterranean waterway are commonly associated with river run gravel, sand or clay, none of which were observed between 47 and 220 feet below ground surface . The Owners utilized surface waters in the past for residential and agriculture use and for fire suppression, but per landowner advisement, have ceased diverting since the well was installed.

The elevation of the well surface is approximately 3,650 feet and the nearest waterway (tributary to Steelhead Creek) is approximately 1,000 feet east at a maximum elevation of 3,200 feet; therefore the depth of the well is still at an elevation higher than the nearest waterway further demonstrating that it is not hydrologically connected. The well installation boring is attached in Appendix B. The well has a maximum flow rate of 30 gallons of water per minute, however the solar powered pump will produce approximately 20 gallons of water per minute.

Perennial surface waters or wetlands were not identified within the project site in 2016, with the exception of one natural seasonal spring (see Seasonal Spring - Figure 4). The seasonal spring is on the Hilltop Inset on Figure 3 Insets A and has been used for agricultural purposes on a seasonal basis until approximately May 15th when the seasonal spring becomes dry depending on the hydrologic year. The spring becomes visible above ground and is typically operable from fall to winter, once enough rain has accumulated to initiate groundwater flow and spring discharge. In 2016 GHD observed that the spring appears isolated and does not connect surficially hydrologically downgradient to apparent water course or water body.

In the past, surface water from the spring was diverted seasonally and stored in a 2,500-gallon water storage tank and utilized for agricultural uses including cultivation. However, as of approximately May 2018 it is no longer being used as a water source for the property and the Owner is in the process of relocating the 2,500 gallon tank to be located adjacent to Well #1 (See Rocky Outcrop - Figure 4). Well #1 is the sole source of water for the property.

5.2 Water Storage

Water from Well #1 is to be stored in two existing water storage tanks. The first water storage tank is a 5,000 gallon tank located immediately adjacent to Well #1. The second tank is a 2,500 gallon water tank which is in the process of being relocated from its location adjacent to the seasonal spring to its new location adjacent to Well #1 and the 5,000 gallon tank (see Figure 4 located in Appendix A). The 5,000 gallon tank is connected to the Outdoor Site, residence, and fire hydrants located approximately 300 feet east of the tank, near the residence. The 5,000 gallon tank is connected to the Outdoor Site, residence and fire hydrants via underground water conveyance piping. Both storage tanks contain float valves.

There are three greenhouses on the property. Greenhouse #1 is in use at varying degrees throughout the year. Greenhouses #2 and #3 are the mixed light cultivation greenhouses and are only in use for a portion of year. See Section 11 for a schedule of activities within the greenhouses and at the outdoor site. In regards to irrigation, the greenhouse plants are irrigated by hand watering through a hose wand and per the owner, each plant gets approximately a one minute of water. The drip irrigation is problematic and fails consistently so its use was abandon except for the vegetable garden and outdoor cultivation area. The outdoor cultivation area does successfully utilize drip irrigation, which is conducted by site operator daily by turning on the water and observing site conditions.

Weekly non-residential water use estimates are tabulated in Table 1 below.

Table 1 Non-Residential Site Water Use Estimates

Usage Area	Total Square Feet	Diameter of Area per Plant	Square Feet (per plant)	Gallons per week
Outdoor Production Area	22,380	6	28	44,760
Hilltop Greenhouses Production Area	3,270	5	20	2,943
			Cannabis Subtotal:	47,703
			Livestock:	~4,500
			Fire:	~5,000/year or 96/week
			Total non-residential site water use estimates per week:	52,299

Notes:

- Outdoor = eight gallons per plant per day or 56 gallons per week per plant.
- Water is utilized outdoor from May through October.

- Greenhouse water use is assumed less than outdoor use based on methods of cultivation described by Owner and lower evapotranspiration. Estimated six gallons per plant, three times per week, for a total of 18 gallons per week per plant
- Minimum 2,500 gallons for fire suppression, per NFPA 1142, combined with the average domestic water usage equates to a standard allocation of 5,000 gallons
- The seasonal spring, which flows during wet winter months, is not being utilized as a water source for property uses.
- Water for all uses onsite including: cannabis cultivation, residential uses (not accounted for in this table), livestock and fire suppression is sourced from Well #1 located in the Rocky Outcrop inset (Figure 2 and Figure 4) which, according to its lithology, appears to be hydrologically distinct.

6. Site Drainage, Runoff and Erosion Control Measures

6.1 Site Drainage

The project site is typified by forested woodland (mostly oak with fir sapling encroachment in some areas), sloping hillside, ridgetop oak woodland, some flat plateaus, and sparse open grasslands. Due to its location along a terraced ridgeline, drainage within the project site generally radiates outwards towards the steepest contours. See Figure 5 – Drainage Patterns for an approximate depiction of site drainage.

6.2 Site Runoff

The Owner's management strategy focuses on soil health which positively contributes to water conservation through increased infiltration which mitigates for runoff issues. Owners utilize drip irrigation and the length of the watering period depends on seasonal plant conditions and weather. The water is manually turned off when appropriate amount of water is applied, which follows agronomic rate guidance to eliminate issue of overwatering plants which could damage the plants, as well as eliminates runoff concerns. Given the water application method and enhanced soil properties to support water infiltration and pore space, runoff does not occur from the garden beds or the outdoor cultivation area. Signs of runoff from either types of cultivation methods were not observed during February or August 2016 site visits. The slope of the seedling area is 1-2% slope and the outdoor area has on average slope of 10%. The Outdoor Site is over 1,000 linear feet west of the perennial tributary to Steelhead Creek and over 500 linear feet southeast of the isolated seasonal spring.

There are no fish bearing streams or perennial streams within the property. The property is located at the top of a hill and contains two culverts (C-1 and C-2) as shown in Figure 2 – Overview in Appendix A. C-1 drains spring water produced seasonally (typically November through April) in addition to stormwater flow and C-2 drains stormwater flow. Due to the upland nature of the property and its location on a ridgeline, cumulative flow is not a significant issue as culverts are predominantly draining stormwater flow sourced onsite. Continued maintenance and additional rock armouring is proposed at C-1 and C-2 outlets in order to limit potential erosion through dissipation of stormwater flow at the outlet of the culverts, per the project's Water Resource Protection Plan (prepared for the State Water Resources Control Board under Order No. 2015-0023, Tier 2 requirements). According to photographic evidence, including the lack of erosion at C-1 and minimal erosion at C-2, in addition to the proposed rock armouring and maintenance, the current culverts onsite appear to be sized adequately to manage stormwater flow.

6.3 Erosion Control Measures

Spoils piles were not documented as present during the February 2016 site visit other than a small amount of covered material at the quarry site. Soil and mushroom compost are mixed at a 50 percent of each component, covered and secured with tarps and stockpiled within the quarry where it remains throughout the winter. Depending on the year, sometimes the soil and mushroom compost is covered and secured by a tarp and stockpiled at the Outdoor Site, however it is not overwintered at this location as it is used up during the growing season. Any spoils generated through maintenance of roads or other property features will not be sidecast in any location, rather they will be brought to the quarry and covered and secured by a tarp. The quarry site is concave and sediment runoff from this area is unlikely.

7. Watershed and Habitat Protections

The Owners implement land management practices to limit adverse impacts on the watershed and nearby habitat through routine road maintenance in order to limit sediment transport offsite which is further discussed below, culvert maintenance and improvements (discussed above) and secured storage of all soil amendments and fuel which is further discussed in Section 8. Owners utilization of a hydrologically distinct water source (Well #1), water storage tanks, drip irrigation and straw and mulch as a means of water conservation also benefit the watershed and nearby habitat. Owners do not use chemicals onsite which has the potential to harm the nearby environment, rather owners utilize mushroom compost, liquid fish emulsion and a suite of organic proprietary additives mixed in as an amendment to onsite areas.

7.1 Road Maintenance

It is proposed that the majority of the roads be improved sequentially. It is proposed that such improvements include out sloping and energy dissipation to convey surface water off of the road and minimize erosion and potential for sediment transport. No roads are believed to be delivering sediment to creeks due to the upland nature of the site.

Per Owner's statement on November 16, 2018, eleven (11) rolling dips were installed approximately every 100 yards between the Hilltop Site and Dyerville Loop Road (see Photographs – Appendix D for an example of a rolling dip). Four (4) rocked rolling dips are proposed to be installed as a component of the Water Resource Protection Plan depicted as RS-1 through RS-4 on Figure 2 – Overview in Appendix A. See Appendix C – Typical Road Details for an example of a rocked rolling dip that the Owners will utilize during rocked rolling dip installation. Roads are maintained annually to promote crowned, smooth surfaces. Existing rolling dips are maintained annually to promote conveyance and diffusion of stormwater into appropriate areas of infiltration, and to reduce the potential instability of hillsides. The terraced surfaces throughout the property such as the Hilltop Site (see Inset A - Figure 2) which has an average 0-2% slope and 0-10% slope in the immediate vicinity, will be maintained to promote infiltration through promoting anti-erosion activities such as slow driving speeds, and planting grasses and other vegetation as is possible.

7.2 Planned Improvements

There are planned improvements including the installation of solar panels to eliminate use of any diesel powered generator onsite which will limit the use of fossil fuels and potential adverse impacts from spills, and reduce noise impacts to wildlife. Owners are in the preliminary stages of planning the

future installation of a processing facility within the Hilltop Site which will contain an American Disabilities Act compliant restroom and parking space. Owners plan to work with Humboldt County to secure the proper permitting in order to conduct percolation tests, leach field installation and building construction. Additionally, Owners plan to work with University of California (UC) Agriculture Extension, partners and stakeholders, to look into a viable solution for the Douglas fir encroachment into established oak woodlands particularly on the ridgetop. This is not in relation to specific agency permitting but provides an additional level of commitment to restore upland habitats at the site for long-term site management and ranch longevity.

7.3 Existing Permits, Applications and Plans

Finally, Owners are mitigating potential degradation of the local watershed and nearby habitat resultant from the cultivation operations through their compliance with organic cannabis cultivation operation standards and best management practices. The Owner's compliance is demonstrated by the operational adherence with the conditions, recommendations and management practices required in the following plans, collaborations, permit applications and permits:

- Humboldt County Commercial Medical Marijuana Land Use Cultivation Application
- Notice of Intent for Enrollment under SWRCB Order No. R1-2015-0023 (Tier 2)
- Water Resource Protection Plan, per SWRCB Tier 2 requirements
- California Department of Fish and Wildlife Lake and Streambed Alteration Agreement (processed under the Mountain High Club, LLC ownership and related to two surface diversions that are no longer taking place)
- Humboldt County Interim Permit for Existing Cannabis Cultivation (dated July 30, 2018)
- California Department of Food and Agriculture Cannabis Cultivation Licensing (in process)

8. Storage of Fertilizers, Pesticides and Regulated Products

8.1 Soil Amendments Storage

The site relies on use of mushroom compost, liquid fish emulsion, and a suite of organic proprietary additives mixed in as amendment to onsite areas. Upon reviewing the amendments utilized onsite, the amendments, pesticides, herbicides, or fungicides that GHD is aware of that contain NPK are G&B Organics - Bud & Bloom Fertilizer (NPK: 3-7-4), sea bird guano (NPK: 0-12-0), liquid bone meal (NPK: 0-12-0), bat guano (NPK: 9-1-1), fish emulsion (NPK: 3-1-1). The agricultural production has been Clean Green Certified from 2012-2017 (see Appendix B), which requires specific nutrient, herbicide, and pesticide management techniques that minimizes use of nutrient and chemicals that could negatively impact the environment. Owners are not Clean Green Certified currently because of the mandatory testing requirements upon selling cannabis, but still comply with Clean Green Certification. Application rates for fertilizer and soil amendments are per manufactures standards/recommendations. The nutrients, fertilizers, pesticide/fungicides (all organic) are stored at the Nutrient Storage Building at the Hilltop site southeast of the residence, as indicated on Figure 3 Inset in Appendix A, which prevents their spillage, discharge or leakage from reaching receiving waters. The fish emulsion is stored in covered containers as received by the distributor, and also stored in the Nutrient Storage Building.

The Owner is planning to utilize a climate controlled insulated and sealable cargo container for future nutrient storage which is proposed to be located within the Hilltop Site near the existing buildings, or at the Outdoor Site. The Owner will follow all County and State requirements when installing the cargo container.

Soil used for cultivation is prepared and stockpiled at the quarry site shown on the site plans on Figure 2 Overview and Figure 4 Insets B in Appendix A. Approximately 100 cubic yards of mushroom compost is delivered annually and mixed with onsite recycled soil, which is covered with a tarp and stockpiled within the quarry pit. Soil is reused annually and there is no waste material produced per the owner from the cultivation areas. The quarry site is concave and sediment runoff from this area is unlikely. Per Owner information, depending on the year, sometimes the soil and mushroom compost is tarped and stockpiled at the Outdoor Site, in a 16 by 32 foot fenced enclosure, however it is typically not overwintered at this location as it is used up during the growing season. Leaf waste from the garden is composted in this location as well.

8.2 Fuel Storage

Fuel is for the project site consists of diesel fuel and standard commercial-grade gasoline sourced from the town of Garberville. The fuel for equipment is transported to the site in a "fuel caddy" by the Owner using a pickup truck. Fuel is used to power a diesel generator that provides power to the residence. Diesel fuel used onsite is stored in the fuel caddy and sealed metal fuel container. Gasoline is stored in a fuel caddy. The fuels are located in the existing Generator Shed located southeast of the residence (see Figure 3 in Appendix A). According to the Owner, Spill Prevention, Control, and Countermeasure (SPCC) spill clean-up materials/kits are located at the well, at the residential generator where refuelling occurs, at the garage for equipment refuelling activities, and one for the field truck. The owner is in the process of installing a solar pump on Well #1, and are also in the process of installing solar panels on the property in order to significantly reduce the use of the generator.

8.3 Waste Management

Garbage and refuse is stored in a sealed container within the Refuse Storage Structure. Recycling is stored in containers also in the Refuse Storage Structure. Garbage is typically disposed of monthly and recycling is typically brought to the processing facility every three months. Garbage and recycling is brought to Redway Transfer Station.

Human waste disposal consists of a bathroom in the residential unit which is connected to a septic tank and leach field system. Property owners are in the preliminary stages of exploring the installation of an additional ADA bathroom and leach field.

Refuse from agricultural and residential uses is recycled, green waste is fed to the pigs/livestock at the Hilltop site, and the remaining waste is stored in a container north of the Nutrient Storage Building and east of the residence designated as Existing Refuse Storage Structure located on Figure 3 Inset in Appendix A.

9. Cultivation Activities

9.1 Permitted Cultivation

As mentioned above in Section 4 (General Project Site Description), there are two production areas at the project site that were being used for agricultural cultivation at the time of the 2016 site visits (see Figures 3 and 4 for Production Area locations). The Owner confirmed on November 14, 2018 that the location, area, configuration of the existing production areas has not been modified since the GHD site visit conducted in 2016, except as described below. The site observations made by GHD in 2016 are understood to represent current conditions, as confirmed by the Owner, with the exception of the reduction cultivation area as defined herein. As of the writing of this PLAN, GHD has not independently verified the CMMLUO permit and related Owner-supplied information.

As of July 30, 2018, the site has an interim permit through Humboldt County for the following cultivation areas:

- 22,380 square feet (sf) of outdoor cultivation (existing)
- 3,270 sf of mixed light cultivation (existing)

The above-noted cultivation areas total 25,650 sf. At the time of the 2016 site visit and CMLLUO cultivation application submission, site existing and proposed cultivation totaled 26,768 sf (19,600 sf of outdoor garden cultivation, 6,050 sf of greenhouse cultivation with some mixed light use and 1,120 sf of proposed mixed light greenhouse cultivation), calculated based on field measured area (not based on canopy estimates used by Humboldt County with the County conversion factor). The existing permitted cultivation area (25,650 sf) is a reduction from the 2016 measured cultivation area (26,768 sf).

9.2 Production Areas

The Hilltop Site shown on Figure 2 Overview and Figure 3 Insets, contains three greenhouses and a drying barn. Greenhouse #1 is approximately 600 sf and is predominantly used to house the mother plants, conduct clone propagation, seed starting and plant sexing. Greenhouse #1 contains radiant floor heating and is utilized throughout the year. Greenhouses #2 and #3 are both hoop houses and are each approximately 1,150 sf. Work within Greenhouses #2 and #3 consists of mixed light cultivation consisting of two cycles per year from April to October. The total area of the three greenhouses amounts to 2,900 sf. The cultivation areas are flat with an average 0-2 percent slope with overall site slope in the immediate vicinity ranging from 0-10 percent. The drying barn is approximately 1,160 square feet and contains a 10 by 8 by 8 foot cargo container with security locks and a camera. The site was previously cleared when the current Owner purchased the site, and the house foundation was in place. This site is over 1,000 linear feet from the perennial tributary to Steelhead Creek on the adjacent APN and approximately 200 linear feet to the seasonal isolated spring.

The Outdoor Garden site is approximately 19,600 sf and includes a 400 sf seedling area and 19,200 sf outdoor cultivation area, which was confirmed at the 2016 site visit via measurements, and Geographic Information System (GIS) aerial photo interpretation. Per Owner information, the size and area of the Outdoor Garden site has not changed since 2016. Seedling starting takes place in both Greenhouse #1 and the Outdoor Garden. The slope of the outdoor seedling area is 1-2 percent and the outdoor area has on average slope of 10 percent. The Outdoor Garden site is

over 1,000 linear feet from the perennial tributary to Steelhead Creek and approximately 500 linear feet to the seasonal isolated spring.

10. Processing Plan

A processing facility is being designed and planned for installation within the Hilltop Site for summer 2020. Owners have had a preliminary and informal conversation with a Planner at Humboldt County Planning and Building Department about the proposed facility and expects to coordinate with the County to ensure proper site assessment has been conducted in order to secure the building permit. The processing facility is proposed to include a concrete slab, an American Disabilities Act (ADA) compliant restroom, new septic system (to accommodate 15 people), commercial food grade sinks with on demand hot water, shower, laundry, office area, and ADA parking space. Owners are currently working with A.M. Baird Engineering & Surveying to design and plan the septic system for the proposed facility. The processing facility will be powered through solar photovoltaic panels. The Owners and their family members will predominantly handle the processing, however if additional workers are needed they will be hired as independent contractors utilizing appropriate state and federal tax paperwork (Form W-9 and Form 1099-MISC). Harvested material will continue to be dried in the existing drying barn located approximately 150 linear feet northwest of the greenhouses. Once the harvested material is dried and cured it will be processed into trimmed flowers, rosen, kief or biomass for crude oil within the processing facility. Owners plan to invest in a nitrogen packaging system after the processing facility is constructed. When not in use, other permitted cannabis farms may rent the processing facility. Currently, cannabis drying and processing takes place in the existing drying barn onsite.

11. Schedule of Activities

The following table outlines the schedule of activities throughout a typical year:

Table 2. Schedule of Activities Throughout a Typical Year

Month	Activities	Projected Generator Use* in kWh
January	• Plant seeds (Greenhouse[GH] #1) • Clone propagation (GH #1) • Machinery maintenance • Feed and water plants (GH #1) • Apply mold, fungus and pest prevention spray weekly (GH #1)	58.9
February	• Monitor seeds and clones and mother plants (GH #1) • Feed and water plants (GH #1) • Apply mold, fungus and pest prevention spray weekly (GH #1) • Transplant if sun is out (GH #1)	47.6
March	• Monitor and maintain mother plants (GH #1) • Transplant seeds into five gallon pots (GH #1) • Transplant clones into three gallon pots (GH #1) • Feed and water plants (GH #1) • Apply mold, fungus and pest prevention spray weekly (GH #1)	34.1

	• Trim bottom leaves and clean up the bottom of the plants (GH #1)	
April	• Monitor and maintain mother plants (GH #1) • Prepare garden beds (GH #2 and #3). Each bed receives 100 pounds of G&B Organics Bud & Bloom fertilizer. • Set up lighting and tarps (GH #2 and #3) • Transplant mixed light cultivation plant starts to GH #2 and #3 • Feed and water plants (GH #1, #2, #3) • Apply mold, fungus and pest prevention spray weekly (GH #1, #2 and #3)	216
May	• Monitor and maintain mother plants (GH #1) • Feed andwater plants (GH #1, #2, and #3) • Apply mold, fungus and pest prevention spray weekly (GH #1, #2 and #3) • Install metal cages around mixed light cultivation beds to prevent rodents and other animals from tampering with plants (GH #2 and #3) • Daily management of mixed light cultivation through temporary installation and removal of tarps to mimic 12 hours of darkness and 12 hours of sunlight (GH #2 and #3) • Determine sex of seed starts and pick male plants for making seeds (GH #1, #2 and #3) • Feed green waste to pigs (livestock operation exists onsite) • Prepare outdoor garden through soil mixing and uneven surface leveling. • Utilize bobcat auger to dig holes, add compost.	217
June	• Monitor and maintain mother plants (GH #1) • Transplant seed starts or clones from the 5 gallon pots to outdoor site (GH #1 to Outdoor) • Feed and water plants (GH #1, #2, #3, Outdoor) • Apply mold, fungus and pest prevention spray weekly (GH #1, #2, #3, Outdoor) • Install metal cages around each plant (Outdoor) • Daily management of mixed light cultivation through temporary installation and removal of tarps to mimic 12 hours of darkness and 12 hours of sunlight (GH #2 and #3) • Clean the bottom of plants to remove base shoots in order to promote growth (GH #2 and #3)	15
July	• Monitor and maintain mother plants (GH #1) • Feed and water plants (GH #1, #2, #3 and Outdoor) • Apply mold, fungus and pest prevention spray weekly (GH #1, #2, #3, Outdoor) • Daily management of mixed light cultivation through temporary installation and removal of tarps to mimic 12 hours of darkness and 12 hours of sunlight (GH #2 and #3) • Start cleaning and trimming the bottoms of the plants (Outdoor)	65.1
August	• Monitor and maintain mother plants (GH #1) • Feed and water plants (GH #1, Outdoor) • Apply mold, fungus and pest prevention spray weekly (GH #1, Outdoor) • Harvest and process mixed light cultivation plants from GH #2 and #3 (Barn)	71.3

	• Prepare garden beds (GH #2 and #3). Each bed receives 100 pounds of G&B Organics Bud & Bloom fertilizer and 50 pounds of G&B Organics Rainbow Bloom fertilizer. • Replant GH #2 and GH #3 with seed starts and clones from GH #1 • Set up lighting and tarps (GH #2 and #3) • Trim leaves of plants (Outdoor)	
September	• Monitor and maintain mother plants (GH #1) • Feed and water plants (GH #1, #2, #3, Outdoor) • Apply mold, fungus and pest prevention spray weekly (GH #1, #2, #3, Outdoor) • Daily management of mixed light cultivation through temporary installation and removal of tarps to mimic 12 hours of darkness and 12 hours of sunlight (GH #2 and #3) • Prepare for outdoor harvest	33
October	• Monitor and maintain mother plants (GH #1) • Early October: Feed and water plants (GH #1, #2, #3, Outdoor) • Apply mold, fungus and pest prevention spray weekly (GH #1, Outdoor) • Early October: Daily management of mixed light cultivation through temporary installation and removal of tarps to mimic 12 hours of darkness and 12 hours of sunlight (GH #2 and #3) • Late October remove plants from outdoor and GH #2 and #3 • Dry and cure harvest in drying barn	43.4
November	• Monitor and maintain mother plants (GH #1) • Feed and water plants (GH #1) • Apply mold, fungus and pest prevention spray weekly (GH #1) • Take down harvest for processing and storage • Process harvest (Barn) • Have compost delivered and prepare soil for next year (Quarry) • Clean up gardens (Outdoor, GH #1, #2, #3)	60
December	• Monitor and maintain mother plants (GH #1) • Feed and water plants (GH #1) • Apply mold, fungus and pest prevention spray weekly (GH #1)	65.1

Notes:

- * = Owners are in the process of installing photovoltaic panels which will become the predominant source of power onsite, which is expected to replace diesel powered generators. Generators will only be in use as a backup means of power. Solar photovoltaic panels are expected to be installed in 2019. The projected generator use is based off of previous generator use.
- The "feed" mentioned for plants consists of bat and seabird guano, fertilizer and organic compost stored and prepared onsite
- Plants are watered and "fed" on different schedules throughout the year. From January through May, and November through December plants are typically "fed" and watered three times per week. From June through October plants are watered and "fed" daily.

- Mold, fungus and pest prevention spray predominantly consists of an essential oil based amendment prepared by the Owners which includes cayenne powder, baking soda, citronella oil, isopropyl alcohol, vegetable oil, and garlic), and Trifecta Crop Control.

12. Security Plan

The project site is located in a remote, isolated location and Owners do not customarily encounter uninvited visitors. The project site contains an existing permanent family residence that is occupied all year by the property Owners. Current security measures include a locked gate and hidden security camera at site access driveway off of Dyerville Loop Road, with periodic changes to the locked gate combination in order to exclude prior contractors. The private driveway is 0.7 miles and contains an additional hidden security camera; hidden cameras are also scattered throughout the property along access roads. Owners are exploring a multi camera system for added security with a focus on the project site as well as the residence. Motion detector lights exist on all buildings within the project site. The locations of cultivation are currently set back from all public roads and are hidden from view due to topography and vegetation (see Figure 6 – Setbacks in Appendix A). Two Great Dane guard dogs live onsite for additional security.

Appendices

Appendix A –Figures

The following figures are enclosed for the project site:

Figure 1 Vicinity

Figure 2 Overview

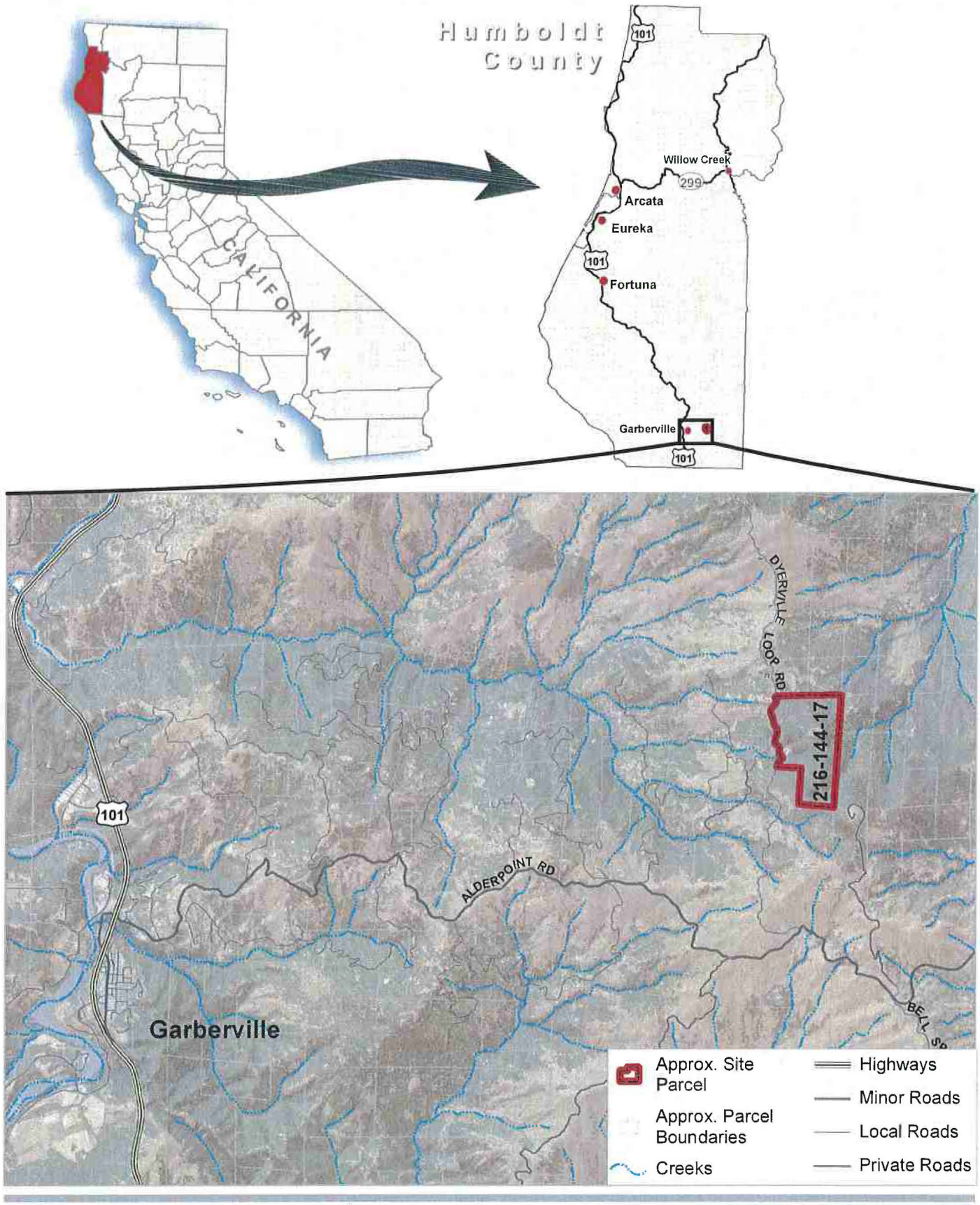
Figure 3 Insets A

Figure 4 Insets B

Figure 5 Drainage Patterns

Figure 6 Setbacks

Note: the figures enclosed herein are in conceptual form. These figures are for reference and planning purposes and may be refined further based on project information developed during the ongoing planning and permitting process.



Paper Size ANSI A

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Miles

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet

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GHD

Jameson and Larose Kelly
Dyerville Farms, LLC
Cultivation and Operations Plan

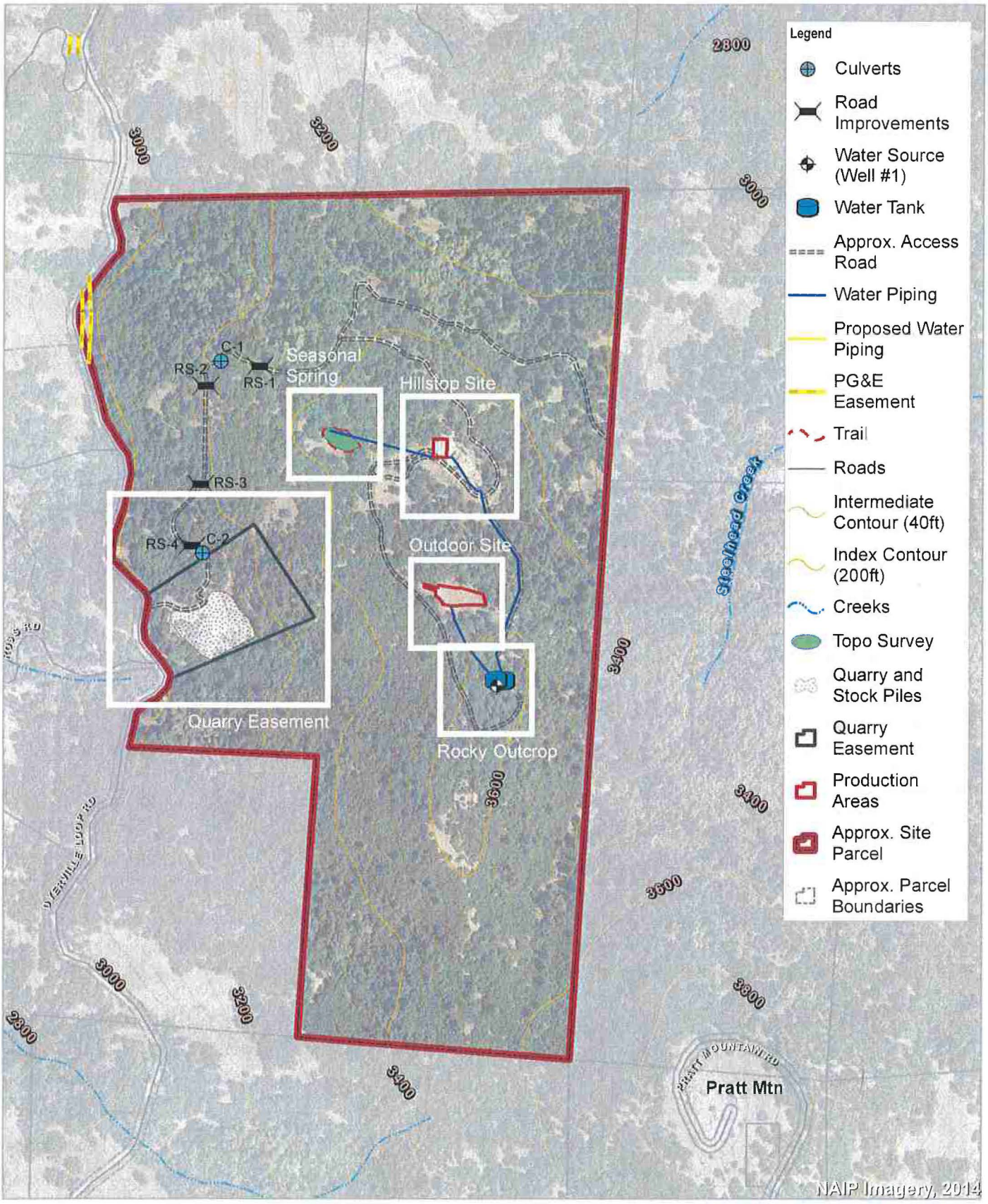
Project No. 11186601
Revision No. -
Date 11/16/2018

Vicinity Map
APN 216-144-17

FIGURE 1

\\ghdnet\ghd\US\Eureka\Projects\11111\186601 Dyerville Farms-Env Mgmt Plans\08-GIS\Maps\Deliverables\11186601_001_Vicinity.mxd
Print date: 16 Nov 2018 - 11:33

Data source: Humboldt County parcels, 2016; Humboldt county roads, 2008, Humboldt county streams; USGS contours; NAIP orthoimagery, 2014; Copyright © 2014 Esri
Sources: Esri, USGS, NOAA. Created by: jclark2



Paper Size ANSI A

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Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet

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Jameson and Larose Kelly
Dyerville Farms, LLC
Cultivation and Operations Plan

Overview Map
APN 216-144-17

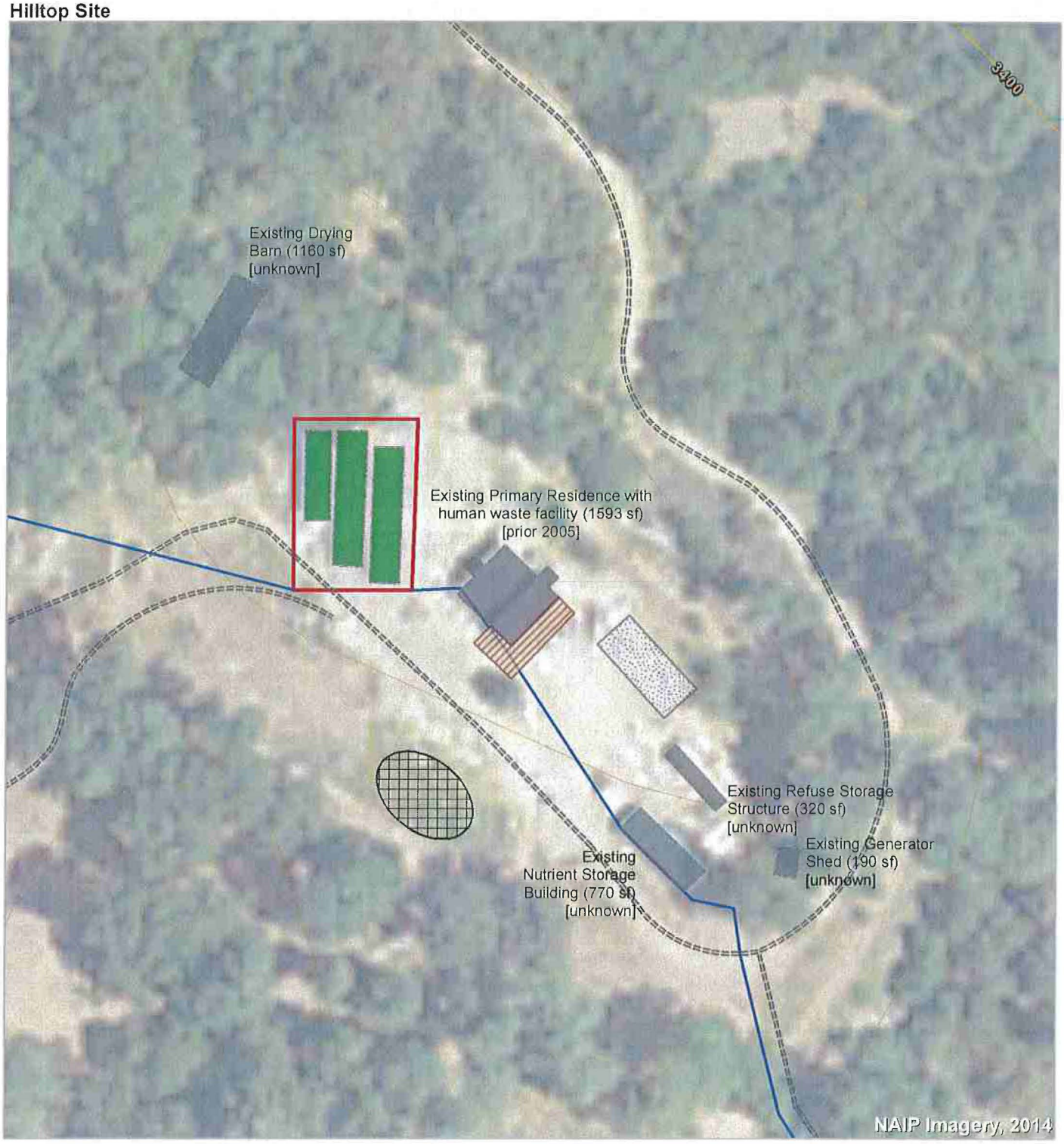
Project No. 11186601
Revision No. -
Date 11/19/2018

FIGURE 2

\\ghdnet\ghd\US\Eureka\Projects\11111\186601 Dyerville Farms-Env Mgmt Plans\08-GIS\Maps\Deliverables\11186601_002_Overview.mxd
Print date: 19 Nov 2018 - 15:53

Data source: Humboldt county parcel data, 2018; roads 2008; streams; USGS contours; GHD GPS locations, 2018; Points West survey, 2018; NAIP orthoimagery, 2014. Created by: jclark2

Hilltop Site



Legend

- Approx. Access Road
- Pipeline
- Intermediate Contour (40ft)
- Index Contour (200ft)
- Approx. Leach Field
- Building
- Existing Greenhouse
- 4 Parking Spaces
- Existing Deck
- Production Areas
- [#] Approx. Date of Construction

Paper Size ANSI A

0 20 40 60 80

Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet

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Jameson and Larose Kelly
Dyerville Farms, LLC
Cultivation and Operations Plan

Insets A
APN 216-144-17

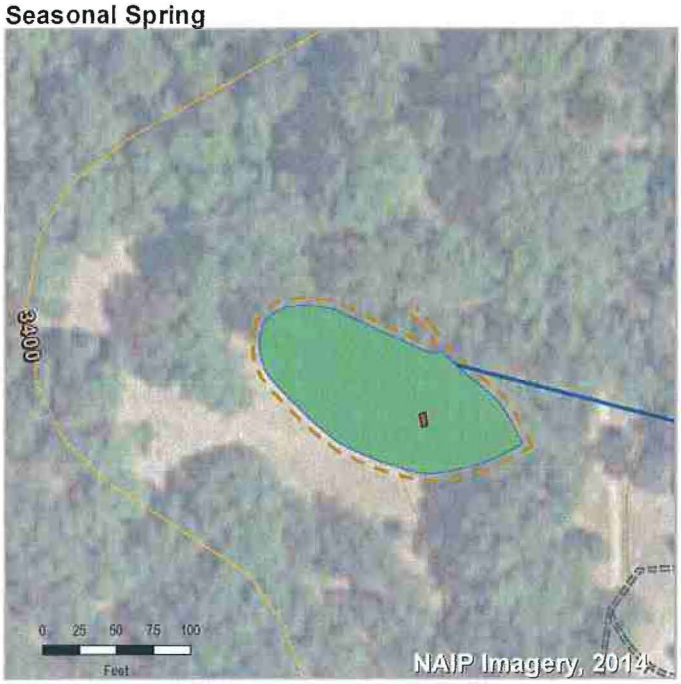
Project No. 11186601
Revision No. -
Date 11/16/2018

FIGURE 3

\\ghdnetghd\US\Eureka\Projects\11\11186601 Dyerville Farms-Env Mgmt Plans\08-GIS\Maps\Deliverables\11186601_003_InsetsA.mxd
Print date: 16 Nov 2018 - 11:54

Data source: Created by: jclark2

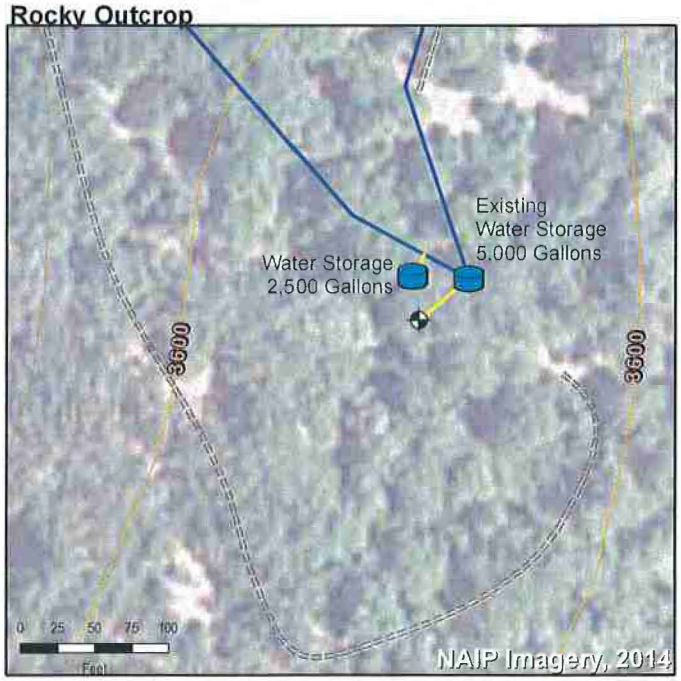
Seasonal Spring



Quarry Easement

Outdoor Site

Rocky Outcrop



Legend

- Culverts
- Water Tank
- Water Source (Well #1)
- Road Repair

Road improvement areas considered to be controllable sediment discharge sites as listed in the WRPP under SWRCB Order No. R1-2015-0023

- Approx. Access Road
- Trail
- Roads
- Intermediate Contour (40ft)
- Index Contour (200ft)
- Quarry and Stock Piles
- Quarry Easement
- Water Piping
- Proposed Water Piping
- Topo Survey Area
- Existing Spring Box
- Building
- Compost Area
- Production Areas
- Approx. Site Parcel
- Approx. Parcel Boundaries

Paper Size ANSI A

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet

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Jameson and Larose Kelly
Dyerville Farms, LLC
Cultivation and Operations Plan

Insets B
APN 216-144-17

Project No. 11186601
Revision No. -
Date 11/28/2018

FIGURE 4

\\ghdnet\ghd\US\Eureka\Projects\111\11186601 Dyerville Farms-Env Mgmt Plans\08-GIS\Maps\Deliverables\11186601_004_InsetsB.mxd
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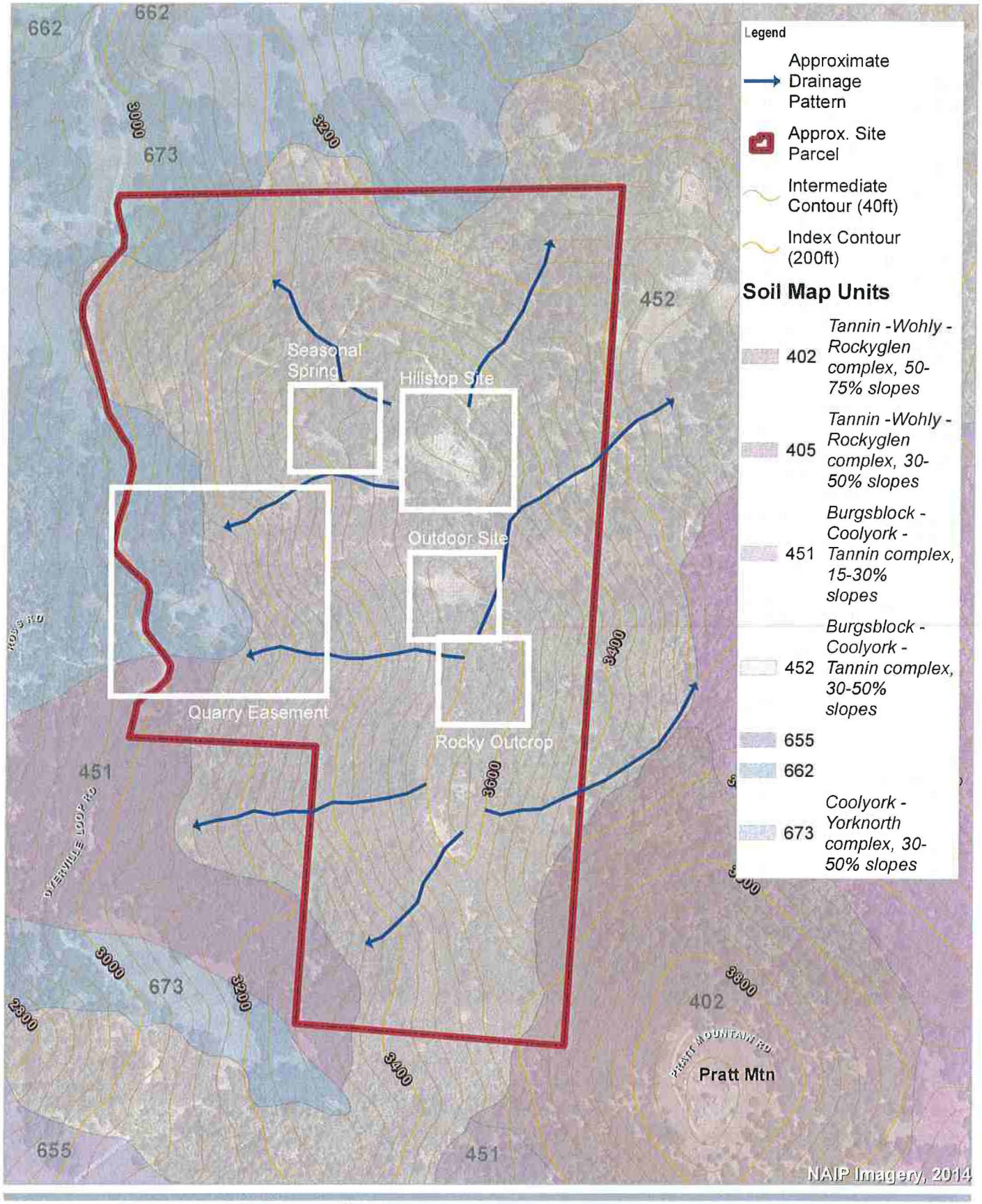
Data source: Humboldt county parcel data, 2016; roads 2008; streams; USGS contours; GHD GPS locations, 2015; Points West survey, 2016; NAIP orthoimagery, 2014. . Created by: jclark2



Paper Size ANSI A

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Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet

Jameson and Larose Kelly
Dyerville Farms, LLC
Cultivation and Operations Plan

Drainage Patterns
APN 216-144-17

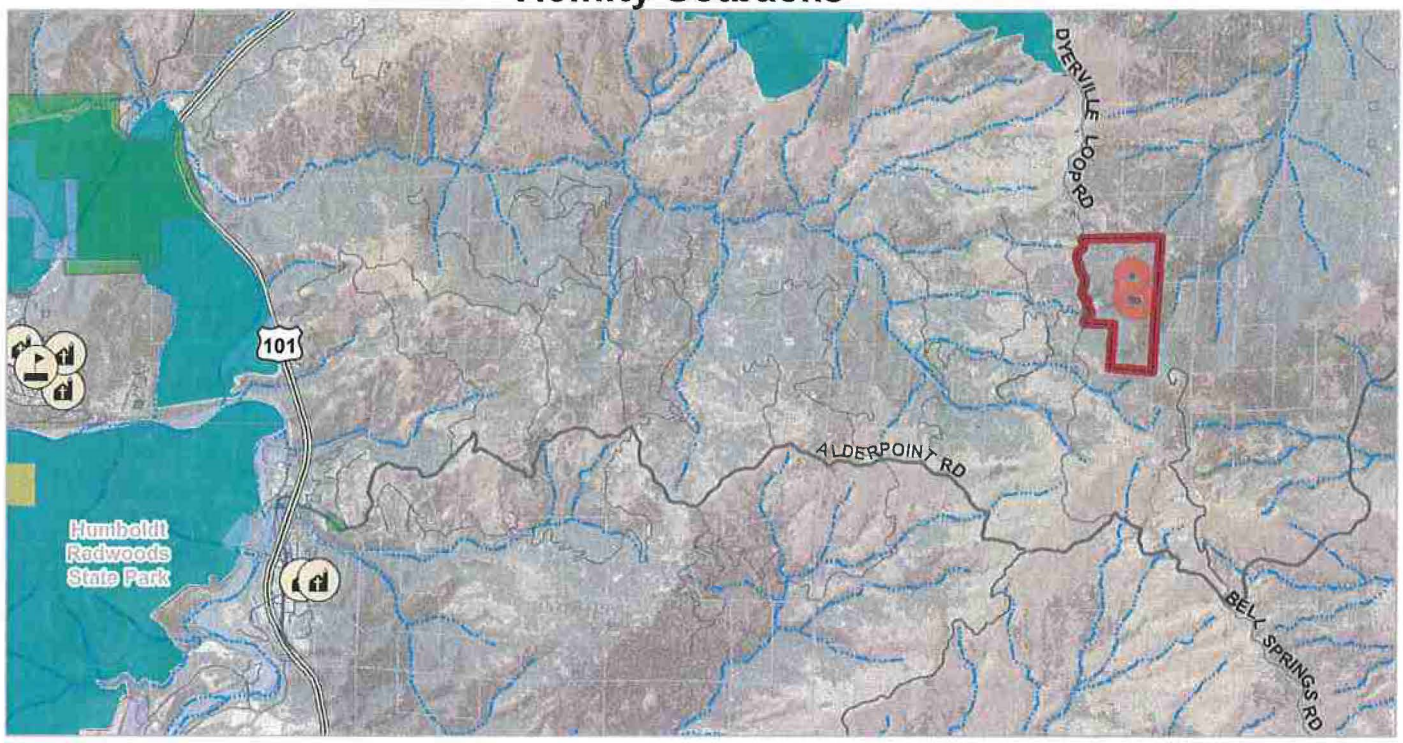
Project No. 11186601
Revision No. -
Date 11/16/2018

FIGURE 5

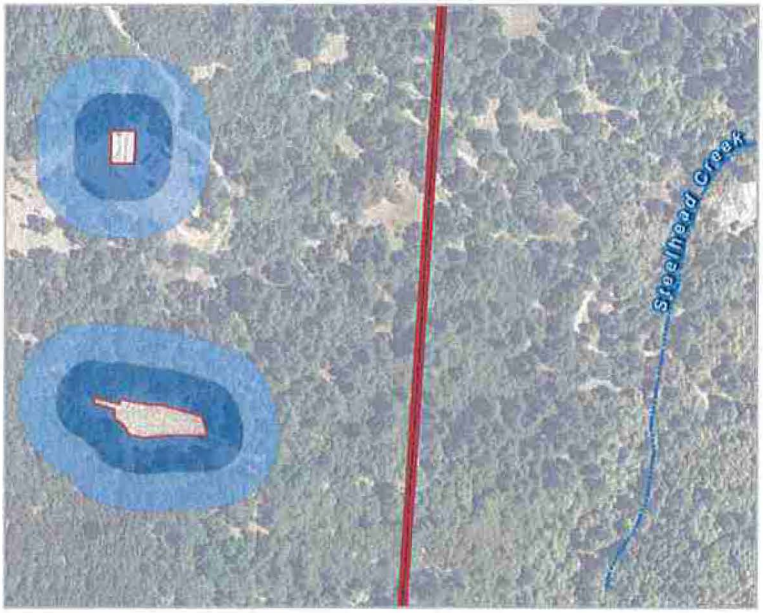
\\ghdnetghd\US\Eureka\Projects\11\11186601 Dyerville Farms-Env Mgmt Plans\08-GIS\Maps\Deliverables\11186601_005_DrainagePatterns.mxd
Print date: 16 Nov 2018 - 14:43

Data source: Humboldt county parcel data, 2018; USGS contours; USGS Soils survey, 2016; NAIP orthoimagery, 2014. Created by: jclark2

Vicinity Setbacks



Creek Setbacks



Property Line Setbacks

Legend

- School
- Church
- National Park or Forest
- State or Local Park or Forest
- Other publicly owned land
- Open Space/Parks
- Public Lands
- Creeks
- Highways
- Minor Roads
- Local Roads
- Private Roads
- Intermediate Contour (40ft)
- Index Contour (200ft)
- Approx. 30 ft setback
- Approx. 100 ft setback
- Approx. 200 ft setback
- Approx. 600 ft setback
- Production Areas
- Approx. Site Parcel
- Approx. Parcel Boundaries

Paper Size ANSI A

0 190 380 570 760

Feet

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California I FIPS 0401 Feet

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Jameson and Larose Kelly
Dyerville Farms, LLC
Cultivation and Operations Plan

Setbacks
APN 216-144-17

Project No. 11186601
Revision No. -
Date 11/16/2018

FIGURE 6

\\ghdnet\ghd\US\Eureka\Projects\111\11186601 Dyerville Farms-Env Mgmt Plans\08-GIS\Maps\Deliverables\11186601_006_Setbacks.mxd
Print date: 16 Nov 2018 - 12:50

Data source: Humboldt county parcel data, 2016, roads 2008, streams: USGS contours; GHD GPS locations, 2016, Points West survey, 2016. NAIP orthoimagery, 2014. Copyright © 2014 Esri. Created by: jclark2