COUNTY OF HUMBOLDT
PLANNING AND BUILDING DEPARTMENT
CURRENT PLANNING DIVISION

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Hearing Date: May 5, 2022

To: Humboldt County Planning Commission

From: Cliff Johnson, Supervising Planner

Subject: **Blocksburg Family Farm, LLC**
Record Number: PLN-12265-CUP
Assessor's Parcel Number (APN): 217-471-001
The project is located in the Blocksburg area, on the east side of Alderpoint Road, approximately 2.65 miles due north from Blocksburg proper.

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Please contact Desmond Johnston, Senior Planner, at 707-441-2622 or by email at djohnston@co.humboldt.ca.us, if you have any questions about the scheduled public hearing item.

AGENDA ITEM TRANSMITTAL

Hearing Date	Subject	Contact
May 5, 2022	Conditional Use Permit	Desmond Johnston

Project Description: A Conditional Use Permit for 6.39 acres of outdoor cultivation including 16,800 sf of existing cannabis authorized under interim permit, on a parcel of approximately 1,221 acres. The proposed six acres of new will comprise of three acres full term outdoor and three acres of Light Deprivation, and with ancillary facilities, will be developed in four phases over four years. Water would be provided by an onsite well, a 2.2-million-gallon rain catchment pond, and a one-million-gallon rainwater catchment tank. Total irrigation demand by Phase IV is anticipated to be approximately 3.1 million gallons per year, with the rain catchment pond being the primary source of water by Phases II and III. The project includes 8,000 sf of proposed and 2,000 sf of existing ancillary nursery space. Processing would occur onsite in a proposed 7,200 sf multi-use building in the footprint of a burned down barn. Power is proposed to be provided principally by a generator for Phase I and Phase II (staff is recommending a condition of approval for renewable energy to be established before any new expansion of cultivation). By Phase III, a solar array would provide the power, with generators retained for backup use only. Phase I of the project would require approximately six employees. Phases II & III would require a maximum of twenty-five employees and incorporates a vanpool.

Project Location: The project is located in the Blocksburg area, on the east side of Alderpoint Road, approximately 2.65 miles due north from Blocksburg proper, on the property known to be in the west half of the west half of Section 4, Township 02 South, Range 05 East.

Present Plan Land Use Designations: Agricultural Exclusive – Special Building Site - (AE-B-5 (160)); and Timberland Production (TPZ)

Present Zoning: Agriculture General (AG)

Record Number: PLN-12265-CUP

Assessor's Parcel Number: 217-471-001

Applicant	Owner	Agent
Blocksburg Family Farms, LLC c/o Nancy & Dakota Ringo P.O. Box 238 Blocksburg, CA 95514	Ronald F. Glass 1141 N. Luge Ave. Eagle, ID 83616	Kaylie Saxon Greenroad Consulting 1650 Central Ave. Suite C McKinleyville, CA 95519

Environmental Review: An Initial Study/Mitigated Negative Declaration has been prepared pursuant to the California Environmental Quality Act (CEQA) Statute (Public Resources Code 21000–21189) and Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000–15387).

State Appeal Status: Project is located outside the Coastal Zone and is therefore NOT appealable to the California Coastal Commission

Major Issues: None; although the scale of this project has generated public opposition.

Blocksburg Family Farm, LLC
Record Number: PLN-12265-CUP
Assessor's Parcel Number (APN): 217-471-001

Recommended Planning Commission Action

1. Describe the application as a public hearing;
2. Request that staff present the project;
3. Open the public hearing and receive testimony; and
4. Close the hearing and adopt the resolution to take the following actions::

(a) Find that the Planning Commission considered the Mitigated Negative Declaration prepared for the Blocksburg Family Farm, LLC. project, together with all comments received during the public review process, pursuant to Section 15074 of the State CEQA Guidelines;
(b) Make the findings in support of the Mitigated Negative Declaration;
(c) Adopt the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program;
(d) Make all the required findings for approval of the Conditional Use Permit; and
(e) Approve the Blocksburg Conditional Use Permit as recommended by staff and subject to the recommended conditions.

Executive Summary: A Conditional Use Permit for 6.39 acres of outdoor cultivation including 16,800 sf of existing cannabis authorized under interim permit, on a parcel of approximately 1,221 acres. The proposed six acres of new will comprise of three acres full term outdoor and three acres of Light Deprivation, and with ancillary facilities, will be developed in four phases over four years. Water would be provided by an onsite well, a 2.2-million-gallon rain catchment pond, and a one-million-gallon rainwater catchment tank. Total irrigation demand by Phase IV is anticipated to be approximately 3.1 million gallons per year, with the rain catchment pond being the primary source of water by Phases II and III. The project includes 8,000 sf of proposed and 2,000 sf of existing ancillary nursery space. Processing would occur onsite in a proposed 7,200 s.f. multi-use building in the footprint of a burned down barn. No power is required for the cultivation itself but for the propagation and processing activities. Power is proposed to be provided principally by a generator for Phase I and Phase II and staff is recommending a condition of approval to require that all new propagation facilities and drying and processing facilities be fully solar powered prior to operation (COA No. 22).By Phase III, a solar array would provide the power, with generators retained for backup use only. Phase I of the project would require approximately six employees. Phases II & III would require a maximum of twenty-five employees and incorporates a vanpool.

Project Phasing

Areas cultivated and facilities constructed would be carried out in four phases, each phase representing one year (i.e. one growing cycle), as follows:

Phase I
- Improve and rock access roads
- Bring in B&Bs for employee use
- Install (or complete install) 2,200,000 gallon rainwater catchment pond
- Install 2, 2,500 gallons tanks
- Build and plant new propagation greenhouses
- Till, amend, and plant - full sun only (1 or 2 acres new and 16,800 sq. ft. existing)
- Set up irrigation system for new cultivation
- Establish Compost Area
- Complete septic design and install system
- Build Multi-Use Building (drying/processing/storage)
- Install propane tank

Phase II
• Complete irrigation system
• Use 2,200,000 gallon rainwater catchment pond
• Build and plant remaining propagation greenhouses
• Plant permitted acreage (up to 6.39 acres)
• Install light deprivation infrastructure

Phase III
• Install 1,000,000 gallon rainwater catchment tank
• Install/Activate Alternative Energy System*
• Review/Refine Alternative Energy System performance

Phase IV
• Implement all long-term operational procedures

Cultivation

Existing Cultivation

The existing development on the project parcel is limited to one full term garden (16,800 sq. ft. canopy with 850 plants in beds), two (2) 2,500-gallon water tanks, one 20-foot by 80-foot propagation greenhouse, one (1) 8-foot by 20-foot steel shipping container, one (1) well with solar collection panels and 2,500-gallon tank. An existing shipping container is used for product storage and for overwinter storage of cultivation materials. The existing greenhouse doubles as a drying space.

Cultivation – Proposed Full Term Outdoor (3 acres)

Phase I of the project includes planting one to two (1-2) acres of full-term outdoor plants. All plants will be planted directly in the ground in early Summer and harvested in late Fall. Drip irrigation systems will be installed to serve the additional acres of full term outdoor. Phase II ongoing will see up to three (3) acres of full term outdoor planted and drip irrigation completed.

Cultivation - Proposed Light Deprivation (3 acres)

There will not be any light deprivation cultivation during Phase I. During Phase II and ongoing, up to three (3) acres of light deprivation outdoor will be tilled and fertilized with plants in the ground by late March or early April. The light deprivation structures are composed of pvc hoops that will support light deprivation tarps. The blackout tarps will be 'panda' tarps that are white on the outside and black on the inside; these are pulled by hand. The first harvest from the light deprivation cultivation is anticipated in early July, with new plants in the ground by late July; the second harvest is anticipated in late October. All tarps will be removed and stored in the Multi-Use Building or in an additional storage container for the winter.

Water

Source and Storage: The project currently has two (2), 2,500 gallon hard-sided plastic tanks (polyethylene); these tanks serve as water transfer and storage for the existing 16,800 sq. ft. full term garden. During Phase I, the project will add two acres of new full sun cultivation, and an additional two (2) 2,500-gallon plastic tanks. Additional water storage will be provided by a 2,200,000 gallon rainwater catchment pond constructed for Phase II, and a 1,000,000 gallon rainwater catchment tank constructed for Phase III. The pond construction will result in a disturbed area of 61,756 sq.ft. with the pond surface area to be 36,500 sq.ft. The pond has been engineered and includes an overflow design and an erosion control plan. The pond will include one to two (1-2) wildlife escape ramps. The steel tank has a diameter of 167 feet and a footprint of approximately 21,904 sq. ft. The large diameter and sloped roof design will

allow catchment of rainwater and provide a secure and safe (for animals and from leaks/collapse) water storage option for the project.

Water is presently sourced from an existing, onsite non-diversionary well that has a production rate of 28 gallons/minute, as established in a recent drawdown pump test (test completed on May 13, 2020). A July 2021 geologic study, Hydrologic Isolation of Existing Well from Surface Waters, determined that connectivity between the well and surface waters is highly unlikely. The pump test and the geologic study are both attached to the IS/MND.

The 2.2 million gallon rainwater catchment pond will be constructed during Phase I, and depending on the timing of project approval may be constructed prior to Phase I growing season, or after Phase I growing season. The pond will collect water over the winter (between Phase I/II) and be ready for use during Phase II. The two (2), existing 2,500 gallon hard-sided plastic tanks (polyethylene) serve as water transfer and storage for the existing 16,800 sq. ft. full term garden. During Phase I, the project will add an additional (2) 2,500 gallon plastic tanks. During Phase III, the project will add the steel 1 million gallon rainwater harvest/storage tank. The tank will collect water over the winter (between Phase II/III) and be ready for use during Phase III. The total volume of water in storage at full build out (Phase III) will be 3,210,000 gallons.

Water Use: At full project operation, water use is estimated to be 3,157,826 gallons of water annually. The 2.2 million-gallon rainwater catchment pond will be in place and will be used as a primary irrigation water source for Phase II and Phase III. Water storage capacity is projected to exceed use by 52,174 gallons per year, not accounting for possible additional precipitation that may partially refill the pond and steel tank after partial drawdown.

Water Use Per Phase Summary

Phase	Gallons/Yr*	Water Source
1 – 1.39 acres cultivation	674,858	Existing well
(I – 2.39 acres cultivation alt	1.15 million	Existing well)
II – 6.39 acres cultivation	3.2 million	2.2 million-gallon catchment pond (well as back-up)
III – 6.39 acres cultivation	3.2 million	2.2 million-gallon catchment pond, and 1.0 million-gallon catchment tank (well as back-up)

*includes employee personal use

California Department of Fish and Wildlife asked that the above sequence of phased precipitation catchment facilities construction be made a condition of approval. Since this is already part of the applicant's plan, the applicant does not mind that it be made a condition. This is reflected in proposed Condition of Approval No. 22.

Governor's Drought Proclamation and Executive Order

On March 28, 2022 the Governor of California issued Executive Order N-7-22 (EO) limiting the authority of cities and counties to permit new wells or alterations of existing wells, during the drought emergency, in certain situations. This includes new, or alteration of existing, wells utilizing more than 2 acre feet per year without first determining that extraction of groundwater is not likely to interfere with existing nearby wells nor cause subsidence that would adversely impact or damage nearby infrastructure. The proposed well, during the first phase, would use over this amount. After review of the EO and of the prior groundwater analysis of the project site, Lindberg Geologic Consulting, prepared an analysis contained in *Applicability Executive Order N-7-22 to Existing Permitted Well (4/7/2022),* Attachment 8 of this staff report, concluding that based on the lack of nearby wells and infrastructure, the well and use of the well is consistent with this order.

Biological Resources

Several biological resources assessments, appropriately-timed botanical surveys, an aquatic resources assessment, wetland delineations and a special-status species survey were conducted for the proposed project by qualified biologists with the CEQA consulting firm, NRM Corporation, from June 2019 to September 2021. The results of these surveys were incorporated into the CEQA IS/MND that was prepared and circulated to the public and agencies in November 2021. Seven mitigation measures are recommended to ensure no significant adverse impact on biological resources. These relate to preconstruction surveys, a posted speed limit, and worker-awareness training for Western Pond Turtle; setbacks from a pond and wetland; preconstruction surveys for migratory birds, replanting, enhancement and protection of a special-status plant, a setback for a different seasonal wetland that may be host to special-status plants, and a plan to replace special-status grasses. In addition to inclusion in the Mitigation Monitoring and Reporting Program (MMRP), these measures are listed as recommended **Conditions of Approval Nos. 25 through 31**. The biological assessments, the CEQA IS/MND Biological Resources chapter, and the proposed mitigation measures were reviewed by staff of the California Department of Fish and Wildlife (CDFW).

CDFW staff requested that the County add a condition of approval that the Project not proceed past Phase 1 of development until after the 2.2-million gallon rainwater catchment pond is built, and that the additional one million gallon rainwater storage tank be completed within two years of full cultivation buildout. These measures had already been incorporated into the project prior to circulation of the CEQA IS/MND, and added to the revised Cultivation and Operations Plan. CDFW made the request as an added assurance. The applicant does not have an issue with this. The CDFW request has been added as **proposed COA No. 23**.

All potentially-significant biological impacts are resolved with the seven proposed measures/conditions.

Cultural Resources

Cultural resources surveys were conducted in 2017, 2019, and 2021 on separate areas of the project parcel, covering a total area of 88.2 acres. This includes all areas, and a buffer, of potential project development. The 2017 survey identified one potentially significant prehistoric resource, but was located outside the proposes project area and would not be impacted. Two isolated artifacts were found within the existing cultivation area. In order to avoid disturbing identified resources, the project proponent modified the project area. Ongoing protection will be provided with implementation of an Environmentally Sensitive Area (ESA) Action Plan, as well as with compliance with standard Inadvertent Discovery Protocols. The THPO of the Bear River Band accepted these findings and recommendations. These were included in the CEQA IS/MND as Mitigation Measures Cultural Resources 1 and Cultural Resources 2, are part of the MMRP, and are included among the list of proposed conditions of approval (**COAs Nos. 32 and 33**).

Under the provisions of AB 52, consultation offers were sent to the tribes identified by the Native American Heritage Commission as being traditionally associated with the project site. These included the Bear River Band, Big Lagoon Rancheria, Hoopa Valley Tribe, Round Valley Reservation/Covelo Indian Community, and Cher-Ae Heights. None of the tribes requested further consultation under AB 52, and the County's responsibilities under AB 52 were complied with and concluded.

Roads

The project site is accessed by Alderpoint Road, which is a County-maintained Road developed to a road category 4 standard. From Alderpoint Road the property is served by 3.2 miles of privately-owned, unnamed driveway that provides ranch access to one owner – the owner of the project site. The driveway was surveyed by engineer Steven Nesvold of Omsberg and Preston who prepared a Road Evaluation Report (Appendix F of the IS/MND) for this driveway. The conclusion is that the road and driveway network leading to the cultivation area on the subject parcel (APN 217- 215-001) will be

equivalent to Road Category 4 with routine annual maintenance, given the adequate distribution of turnouts and low ADT.

In response to early referrals, County Public Works requested that the private driveway intersection with Alderpoint Road be maintained in accordance with the Sight Visibility Ordinance, and improved with a paved surface for a minimum width of 20 feet and length of 50 feet at the intersection. This is included in the list of recommended conditions (**COAs Nos. 13 and 14**).

During Phase I, the employees are anticipated to number approximately six (6), with six round trips per day, and will utilize a carpool parking area before entering the project parcel. During Phases II and III, the project will use a van or vans, per the mitigation measure described below, to pick up the 20 to 25 employees from their place of residence, with two round trips. Additional and less frequent traffic will come from garbage/recycling removal, propane refilling, general supply, and clone/potting soil pick up twice a year. The estimated maximum daily average during Phase 1 is 6.25 round trips. The estimated maximum round trips during Phases II/II, with the vanpool mitigation in place, is 2.25 round trips.

Based on the background and analysis of potential transportation impacts provided in the IS/MND's Transportation section, the project does not meet the threshold 110 trips per day above which the State indicates a Vehicle Miles Travelled (VMT) analysis would be required. However, since the County has considered but not yet adopted its own VMT thresholds, the CEQA analyst opted to utilize the County's draft VMT methodology, in order to avoid the lack of a VMT analysis of employee trips as being a case of ongoing speculation. Based on this, the analysis found that inclusion of a mitigation measure requiring an employee van will result in a 92% reduction in trips and assure there will be no significant transportation impact. This measure is included in the CEQA IS/MND and Mitigation Measure Transportation 1, is included among the Commission's draft findings, in the MMRP, and as a recommended condition of approval (**COA No. 34**).

Power

The project will meet or exceed established Humboldt County (Ordinances 2559 & 2599) and upcoming Department of Cannabis Control limitations on greenhouse gas emissions (§8203(g)(1-4) and §8305(a) and (b)) and generators (§ 8306) by installing a solar electric system, integrated passive heating and cooling design, and support from a net zero emissions generator. To reach the desired net zero emissions, the system will be designed in stages.

At this time, all supplemental lighting and fans for the existing cultivation are for propagation only and are run with a gasoline generator kept in a nearby shed. During Phase III the existing propagation greenhouse will have a solar electric collection system with battery storage. The solar will provide all energy needs for the greenhouse and the generator will be discontinued and moved offsite. Power is proposed by the applicant to transition from gas generators to solar power at Phase III, which is the 3rd year of operation, per the Cultivation and Operations Plan (11/5/2021). All generator support will be removed by 2025 under the applicant's proposal. While the IS/MND documents that the use of these generators is not a significant impact under CEQA, the Planning Commission has had a practice or requiring new cultivation under the CMMLUO to be supported be renewable energy sources and accordingly staff is recommending a condition of approval to require that all new propagation facilities and drying and processing facilities be fully solar powered prior to operation (COA No. 22). As there are no lights or fans associated with the cultivation itself the energy needs are strictly for propagation and processing. The applicant has indicated that it would be economically infeasible to develop the first two phases with renewable energy resources and is requesting that the Planning Commission allow for generator power to be utilized for the drying and processing building for the first 2-3 years of operation while the alternative energy system is being developed. If the Planning Commission considers approving such an allowance COA No. 22 can easily be amended to apply only to the propagation facilities or to require a more specific timetable for conversion to renewable energy for the drying and processing facilities.

Environmental Review

Environmental review for the proposed project included the preparation of an Initial Study/Mitigated Negative Declaration (IS/MND) pursuant to the California Environmental Quality Act (CEQA) Statute (Public Resources Code 21000–21189) and Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000–15387). The IS/MND was initially circulated from November 3, 2021, to December 3, 2021, at the State Clearinghouse. The Mitigated Negative Declaration concluded there are no impacts that could not be mitigated, and nine (9) mitigation measures were included addressing areas of biological resources, transportation, and cultural and tribal cultural resources. Comments were received from two agencies – the California Department of Cannabis Control, and California Department of Fish and Wildlife. One late comment was received from a member of the public. The comment letters are attached to the staff report and are summarized and addressed in the Findings.

Following closure of the 30-day CEQA review period on the Nov-Dec 2021 IS/MND, and after noticing of the Commission hearing and preparation of the staff report, the day before the noticed March 3, 2022 Commission hearing, an 18-page comment letter with 38 pages of attachments on the draft MND was received from an attorney, Jason Holder, on behalf of Citizens for a Sustainable Humboldt and the Northcoast Environmental Center. One of the attorney's comments focused on an item of the CDFW comment letter in relation to the special-status plant, *Danthonia glaberrima,* a native prairie grass. The CDFW comment did not identify the loss of *Danthonia* as a significant impact, but suggested that "an argument could be made" that it is. CDFW further stated that they did not desire for the IS/MND to be recirculated on this basis, only that mitigation already proposed be modified to include restoration of the area of *Danthonia* that would be affected. Based on the CDFW comment, a plan was prepared by the project biologist in consultation with CDFW staff, the *Sensitive Natural Community Mitigation and Monitoring Plan: Blocksburg Family Farms, December 2021*. Implementation of the plan had been incorporated into an existing biological resources mitigation measure presented in the March 3, 2022 staff report to the Commission.

While CDFW staff expressed appreciation for the applicant's cooperation in postponing taking the application to hearing while a comprehensive plan for restoration of *Danthonia* could be prepared, the attorney's late comment asserted that the disturbance to *Danthonia* is a significant impact cumulatively, and that it must be described as such in the analysis. Out of caution, County staff, the CEQA document preparer, and the applicant agreed that the draft IS/MND should identify the loss of *Danthonia* prairie grass as potentially significant at a cumulative level, and to recirculate the IS/MND with the proposed restoration plan as a separate mitigation measure. The restoration plan is referenced in the project's Mitigation Monitoring and Reporting Program (MMRP) as Biological Resources MM # 7, and the complete plan is included in the IS/MND appendices as Appendix "O."

The IS/MND was revised as described above with the additional mitigation measure (ten total mitigation measures) and recirculated to the State Clearinghouse, local agencies, and advertised in the newspaper for a 30-day public review period, March 17, 2022 through April 18, 2022. During the CEQA comment period, only one comment was received, from the Regional Water Quality Control Board (RWQCB). The RWQCB noted that the increase in cultivation over one acre will increase that department's level of monitoring, and they stated concurrence with the wetland buffers and water quality compliance assuming wetland delineations were adequate. CDFW reviewed the delineations and found them acceptable.

On April 20, 2022, after the close of the CEQA comment period and one day before the scheduled public hearing of April 21, 2022, Jason Holder, on behalf of Citizens for a Sustainable Humboldt and the North Coast Environmental Center submitted a follow up comment. In this comment Mr. Holder states that staff is ignoring his previous comments on the adequacy of the water supply and the adequacy of the access road. These comments are not being ignored as these issues are well addressed in the IS/MND and the staff report. As noted in the IS/MND and further in the staff report, the well will be used only for the first year at which point rainwater catchment will be the primary irrigation source, and the well has

had two pump tests completed. One upon drilling of the well, and then during May of 2020 a drawdown pump test was completed that showed that a static water level of 100 feet was obtained at 28 gallons per minute which is more than sufficient for the irrigation needs. Mr. Holder asserts that the pump tests are not consistent with County regulations and guidance documents for well pump tests however those regulations and guidance documents are not applicable to agricultural wells (see Attachment 10). Mr. Holder also asserts that the long-term sustainability of the well may be questionable however this comment ignores the fact that the long-term primary irrigation needs will be met through rainwater catchment ponds. Also as noted and discussed in the staff report and the IS/MND the access road is a county-maintained road category 4. The driveway off of the county road serves only the subject parcel and is not required to meet standards applicable to roads, however it has been determined by a licensed engineer to be functionally appropriate for the proposed agricultural activities. While this access driveway is not a road, it should be noted that even if it were the State Fire Safe regulations exempt roads used solely for agriculture (see Attachment 11).

RECCOMENDATION: Based on a review of Planning Division reference sources and comments from all involved referral agencies and responses to comments on the IS/MND, Planning staff believes that the that Mitigated Negative Declaration that was circulated from March 17, 2022 to April 18, 2022 complies with the provisions of CEQA, that the findings in support of the MND can be made, and that the applicant has submitted evidence in support of making all of the required findings for approval of the Conditional Use Permit.

ALTERNATIVES:

1. Staff prepared a thorough environmental analysis which included the preparation of an IS/MND pursuant to the CEQA Statute (Public Resources Code 21000–21189) and Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000–15387). The Planning Commission could also decide the project may have environmental impacts that would require further environmental review pursuant to CEQA. Staff did not identify any potentially significant unmitigable impacts.

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

RESOLUTION OF THE PLANNING COMMISSION
OF THE COUNTY OF HUMBOLDT

Resolution Number 22-

Record Number PLN-12265-CUP
Assessor's Parcel Numbers: 217-417-001

Resolution by the Planning Commission of the County of Humboldt certifying compliance with the California Environmental Quality Act and conditionally approving the Blocksburg Family Farms, LLC., Conditional Use Permit.

WHEREAS, **Blocksburg Family Farms, LLC,** submitted an application and evidence in support of approving a Conditional Use Permit for Record No, PLN-12265-CUP; and

WHEREAS, Permits requested include a Conditional Use Permit for six acres of new outdoor cultivation and 16,800 s.f. of existing outdoor cannabis; and

WHEREAS, A Conditional Use Permit is required under Section 55.4.6.1.2 (c) of the Humboldt County Code for outdoor and mixed light cultivation for the area of cultivation requested, on parcels 320 acres or larger, and on-site processing and nurseries, in the Agriculture General Zone; and

WHEREAS, a Mitigated Negative Declaration was prepared for the proposed Conditional Use Permit, and circulated for public review pursuant to Section 15074 of the CEQA Guidelines;

Now, THEREFORE BE IT RESOLVED, that the Planning Commission makes all the following findings:

1. **FINDING:** **Project Description:** A Conditional Use Permit for 6.39 acres of outdoor cultivation including 16,800 sf of existing cannabis authorized under interim permit, on a parcel of approximately 1,221 acres. The proposed six acres of new will comprise of three acres full term outdoor and three acres of Light Deprivation, and with ancillary facilities, will be developed in four phases over four years. Water would be provided by an onsite well, a 2.2-million-gallon rain catchment pond, and a one-million-gallon rainwater catchment tank. Total irrigation demand by Phase IV is anticipated to be approximately 3.1 million gallons per year, with the rain catchment pond being the primary source of water by Phases II and III. The project includes 8,000 sf of proposed and 2,000 sf of existing ancillary nursery space. Processing would occur onsite in a proposed 7,200 sf multi-use building in the footprint of a burned down barn. Power would be provided principally by a generator for Phase I and Phase II. By Phase III, a solar array would provide the power, with generators retained for backup use only. Phase I of the project would require approximately six employees. Phases II & III would require a maximum of twenty-five employees and incorporates a vanpool.

   EVIDENCE: a) Project File: PLN-12265-CUP

2. **FINDING:** **CEQA.** The requirements of the California Environmental Quality Act have been complied with. A Mitigated Negative Declaration (MND) was prepared for the project and circulated for public review. The conclusion of the MND is that there are not any potentially significant impacts that cannot be mitigated.

   EVIDENCE: a) Environmental review for the proposed project included the preparation of an Initial Study/Mitigated Negative Declaration (IS/MND) pursuant to the California Environmental Quality Act (CEQA) Statute (Public Resources Code 21000–

21189) and Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000–15387).

b) The CEQA document includes an analysis of the subject proposed Conditional Use Permit. The Initial Study and Draft Mitigated Negative Declaration (IS/MND) was circulated from March 17, 2022 to April 18, 2022 (SCH No. 2021110058).

c) The Planning Commission has considered the proposed mitigated negative declaration together with the analysis and all public and agency comments received during the public review process and the whole record.

d) The mitigated negative declaration reflects the County's independent judgment and analysis.

e) The Initial Study/Mitigated Negative Declaration includes ten (10) mitigation measures that have been incorporated into a Mitigation Monitoring and Reporting Program which is being adopted as part of the project.

f) The project application was referred to tribes that were recommended per direction of the Native American Heritage Commission in compliance with AB52, and no tribe requested consultation. AB52 requirements were met and concluded.

3. FINDING: **ENVIRONMENTAL IMPACTS FOUND NOT TO BE SIGNIFICANT- NO MITIGATION REQUIRED**. The following impacts have been found to be less than significant and mitigation is not required to reduce project related impacts: aesthetics, agriculture and forest resources, air quality, geology and soils, energy, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, utilities and service systems, and wildfire.

EVIDENCE: a) There is no evidence of a significant adverse impact to any of the above referenced potential impact areas based on the project as proposed at this proposed location.

b) Initial Study/Mitigated Negative Declaration dated March 10, 2022 and circulated for public review March 17, 2022 to April 18, 2022 (SCH No. 2021110058).

4. FINDING: **ENVIRONMENTAL IMPACTS MITIGATED TO LESS THAN SIGNIFICANT** – The Initial Study identified potentially significant impacts to biological resources, cultural and tribal cultural resources, and transportation, which could result from the project as originally submitted. Mitigation Measures have been required to ensure potential impacts are limited to a less than significant level.

EVIDENCE: a) **Biological Resources**: Potentially significant impacts will be mitigated to a less than significant level with the implementation of the following mitigation measures for biological resources:

i. If construction takes place during the nesting season for *Western Pond Turtles* preconstruction surveys by a qualified biologist will be conducted. If turtles are found in the construction area, they will be left in place (not handled) and construction activities will stop in the vicinity of the turtle until it leaves the area. If nests are found, a 200-foot no-work buffer will be established. Often CDFW considers specific local factors when making buffer size decisions and will be consulted if nests are found. Nest buffers will

remain in place until turtles have hatched and left the nest. If work takes place outside of the nesting season, no surveys are necessary.

ii. As an additional protection for western pond turtles, if the construction takes place during nesting season, the qualified biologist onsite will provide a short onsite training to construction employees that will be working in the area and may encounter turtles after the preconstruction survey. The training will be successful if after the training, the employees will be able to (1) identify by sight, a Western Pond Turtle, (2) know the appropriate activity buffer to provide the turtle, and (3) know when to resume construction work in the area where the turtle was found.

iii. The project will install permanent, all-season signs that describe wetland and pond setback areas as an Environmentally Sensitive Area (ESA). Signs will have a clear mandate for 'no entry.' Because the proposed six (6) acres of cultivation area will be fenced, the west side of the wetlands and pond will not be directly exposed to intrusion by humans. The east side of the pond and wetlands faces the proposed Multi-Use Building, a future construction site and hub of project activity; the eastern side of the wetland/pond is therefore more likely to see increased human and vehicle intrusion. On this eastern side, the project will install a minimum of six (6) signs that demarcate the riparian area setbacks. The signs will be installed prior to construction at which point they will be flagged to ensure that they are seen by construction crews. Signs will be placed along road borders and/or wetland setback boundaries in such a way that the potential for wetland damage is prevented. Alternatively, the project can choose to install split rail fencing (or an equivalent natural material barrier) in 6 to 10-foot lengths to deter human intrusion into the sensitive area. Sign or fence length locations will be identified by a qualified biologist prior to project construction. The qualified biologist will have the authority to require additional signs.

iv. To ensure that western pond turtles are not adversely impacted by vehicle traffic, the project will enforce a 10mph speed limit on the unnamed project access road. Before construction begins, the project will post at least two (2) 10mph speed limit signs: once to inform eastbound drivers entering the access road from Alderpoint Rd. and once to inform westbound drivers leaving the Multi-Use Building and returning to the Alderpoint Rd. intersection. The speed limit signs will be posted at a height of five (5) feet above the ground and clearly visible to oncoming traffic. The project speed limit will be enforced by the project proponents as dust reduction is critical for cannabis plant health. Humboldt County Planning and Building, Cannabis Services Division will ensure that the speed limits have been posted as described.

v. To mitigate for potential impacts to migratory birds, 3 consecutive preconstruction surveys for these species should take place no more the one week prior the planting (and associated mowing and other disturbances) and construction planned for Phase I of the project. The survey area will include the six (6) acres where cultivation Is proposed on Sherman Flat and the footprint of the propagation greenhouses, proposed rainwater catchment tank and pond locations and burned down barn

(Multi-Use Building). The footprint of the disturbance areas and a 300-foot buffer will be surveyed. Should any nests be found, a 100-foot no-work buffer around the nest will be established and CDFW will be consulted for additional going forward, such as buffer modifications or the delaying of work until nestlings have fledged. Alternatively, if ground disturbance begins in August (or later in the season), these species will have completed breeding for the season and no surveys are necessary

vi. To ensure that the sensitive species found in the seasonal depressional wetland in the southeast portion of the Study Area, *Lasthenia glaberrima* Herbaceous Alliance, and *Navarretia leucocephala ssp. bakeri*, are adequately protected, an additional 50-feet of riparian setback is to be added to the standard 100-foot setback (SWRCB, 2019) around the seasonal depressional wetland in the southeast portion of the Study Area (Figure 12). This buffer increase is recommended as a site-specific mitigation to better protect the documented sensitive natural community and special status plant species from potential project impacts.

vii. To ensure that impacts to *Danthonia californica* prairie are not significant or cumulatively significant, the project will implement a Sensitive Natural Community Mitigation and Monitoring Plan. The Plan, contained in Appendix "O" of the IS/MND, outlines the onsite location, procedures, and success criteria that will result in creation of 0.70 acres of high-quality California oatgrass prairie at a 1:1 ratio to mitigate for impacts *to Danthonia californica*.

b) Initial Study/Mitigated Negative Declaration dated November 2021 and circulated from November 3, 2021 to December 3, 2021, was revised to include a mitigation measure reducing potentially significant or potentially cumulative significant impacts to *Danthonia californica* to a less than significant level, and dated March 10, 2022 and circulated to the State Clearinghouse for public review March 17, 2022 to April 18, 2022 (SCH No. 2021110058).

c) **Cultural & Tribal Cultural Resources**: Potentially significant impacts in each of these two areas will be mitigated to a less that significant level with the implementation of the following mitigation measure for cultural and tribal cultural resources:

i. To ensure that the identified cultural resources are not adversely affected by the proposed project, the Archeology Report provides the following mitigation:

Avoidance of Cultural Resources
This Environmentally Sensitive Area (ESA) Action Plan provides guidance to ensure that Site 40-1 is not inadvertently affected by construction or cultivation activities. The ESA calls for no ground disturbing activities to occur within the limits of Site 40-1. No staging, equipment parking, or laydown of materials shall occur within the ESA. Within the ESA all vehicle traffic will be confined to within existing roadways.

The ESA shall consist of colored stakes placed every 30 feet along the perimeter of the recorded site limits to ensure that no ground disturbing

activities associated with the project are allowed into this area without appropriate archaeological and Native American monitors. The ESA boundaries will allow traffic and equipment to move through the ESAs and will provide personnel with clearly defined limits where ground disturbance can take place. Ground disturbing construction activities, however, will be allowed to take place within an ESA only in the presence of archaeological and Native American monitors. The ESA stakes will be erected as a first order of work and prior to any construction/cultivation activities under the direction of a qualified professional archaeologist.

ii. To ensure that accidentally discovered cultural resources or human remains are not adversely affected by the proposed project, all project employees that will be breaking ground (project construction, tilling, etc.) will be appraised of the accidental discovery protocols, described below. The project proponent will deliver the protocols as an oral presentation or in writing. All employees will acknowledge that they have heard/read the protocols by signing their names. The project proponent will deliver the signed document to the Humboldt County Planning and Building Department.

If previously unidentified cultural resources are encountered during project implementation, avoid altering the materials and their stratigraphic context. A qualified professional archaeologist should be contacted to evaluate the situation. Project personnel should not collect cultural resources. Prehistoric resources include, but are not limited to, chert or obsidian flakes, projectile points, mortars, pestles, and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic resources include stone or abode foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.

Inadvertent Discovery of Human Remains
If human remains are discovered during project construction, work will stop at the discovery location, within 20 meters (66 feet), and any nearby area reasonably suspected to overlie adjacent to human remains (Public Resources Code, Section 7050.5). The Humboldt County coroner will be contacted to determine if the cause of death must be investigated. If the coroner determines that the remains are of Native American origin, it is necessary to comply with state laws relating to the disposition of Native American burials, which fall within the jurisdiction of the NAHC (Public Resources Code, Section 5097). The coroner will contact the NAHC. The descendants or most likely descendants of the deceased will be contacted, and work will not resume until they have made a recommendation to the landowner or the person responsible for the excavation work for means of treatment and disposition, with appropriate dignity, of the human remains and any associated grave goods, as provided in Public Resources Code, Section 5097.98.

d) **Transportation:** Beginning in the second season of cultivation (Phase II), when the project intends to hire a number above eight (8) employees, the project will provide one or more passenger vans such that the daily number of employee-

generated round trips is less than eight (8). The project proponent will provide to, the Humboldt County Planning and Building Department (HCPBD), Cannabis Services Division, by Dec 31st of the year, with evidence of van use (lease/purchase agreement, contract, or equivalent) beginning the second season of cultivation after permitting (Phase II) and annually until directed otherwise by the HCPBD.

5. FINDING: **CEQA Public Agency Comments:** Letters of comment were received from two agencies on the November 2021 IS/MND. Subsequently, based on CDFW comments and a late comment from the public, a mitigation measure for biological resources was added and the IS/MND was circulated again in March 2022. Other comments from CDFW, and from the California Department of Cannabis Control, and Regional Water Quality Control Board have been considered and none of these comments change the conclusions of the Mitigated Negative Declaration (MND) of the original or subsequently revised and recirculated MND. There was one late comment from a member of the public on the November 2021 MND. There was one comment on the March 2022 MND submitted by the Regional Water Quality Control Board and also one comment submitted from the public after the CEQA comment period was complete. All of these comments, including the comments submitted after the official CEQA public review period, have been considered and do not change the conclusions of the MND.

EVIDENCE: a) A comment letter from the California Department of Fish and Wildlife noted:

In regard to sensitive plant communities: the November 2021 MND identified 1.065 acres (slightly over one acre) of *Danthonia californica* prairie, a native grassland. CDFW requested that the area of native grass prairie be replaced and enhanced. Following receipt of a late comment from a member of the public on March 3, 2022, County staff determined that mitigation for the special-status plant be incorporated into the analysis and for the IS/MND to be circulated for public review again. During further analysis the project botanist found there is 0.70 acres of Danthonia, and a mitigation plan was prepared in consultation with CDFW; the *Sensitive Natural Community Mitigation and Monitoring Plan: Blocksburg Family Farms (December 2021*. The revised IS/MND was circulated for the 30-day public review period.

In regard to water sources: CDFW asks that a condition of approval be added that confirms that the Project not proceed past Phase 1 of development until after the rainwater catchment pond is built, and that the additional 1-million-gallon rainwater storage tank be completed within two years of full cultivation buildout. These steps are currently included in the project proposal and listed in the Cultivation and Operations Plan, and are also listed among the conditions of approval per CDFW request.

b) The California Department of Cannabis Control (DCC) commented that several additions to the Initial Study/Mitigated Negative Declaration would improve the document. The comments are helpful but do not alter the conclusions of the Mitigated Negative Declaration. The information is taken as beneficial for future reference. Specific comments warranting further response are:

i. What is the relationship to previous CEQA Documents:
Response: Document SCH No. 2021110058 is a recirculated IS/MND for the Blocksburg Family Farms Project. The ISMND circulated in November 2021 replaces the IS/MND that was circulated in April of 2021.

ii. The IS/MND would be strengthened by referencing DCC and the new state regulations for each applicable topic:
Response: The ISMND took into account all comments received from Cal Cannabis in May of 2021. The document was completed during the name change of the agency. The project will follow all current and future DCC regulations.

iii. Request that the applicant provide all related plans to DCC.
Response: The County will advise the applicants to include all project specific plans with the future state application package.

iv. Cumulative impacts to groundwater diversions, transportation, air quality and odors should be analyzed.
Response: The project well/connected aquifer has been evaluated; see IS/MND Appendix E, Hydrologic Isolation of Existing Well from Surface Waters, July 2021. The analysis identified the project well as drawing from a hydrologically isolated aquifer –see Section 4.7. Geographically restricted, the aquifer identified as existing in the landslide complex report is not shared by any other cannabis projects. More generally, as the parcel is over 1,000 acres in size with the nearest neighboring development consisting of another cannabis cultivation operation run by the project proponents, there is little risk any drawdown from the project well will result in a cumulative negative impact on neighbors. This is discussed in the cumulative impacts section of Hydrology and Water Quality, 4.10.)

Cumulative impacts related to transportation and air quality impacts are discussed at the conclusion of the respective IS/MND sections (4.3 and 4.17). Project specific transportation impacts (VMT) above baseline use are described as potentially significant as the project proposes up to 25 employees in a rural setting. Utilizing available guidance from Humboldt County (Proposed Resolution -- Vehicle Miles Traveled (VMT) Screening Criteria and Thresholds of Significance (PLN-2020-16529)) and the CA Office of Planning and Research, the MND identifies van pool requirements as an appropriate Mitigation Measure. Due to this mitigation measure, the project's ongoing transportation impacts are anticipated to return to a level that is lower than baseline. The project's ongoing operations will not result in incremental increases that could contribute to cumulatively related impacts.

Similarly, ongoing air quality impacts are anticipated to remain at or below baseline levels due to a cutoff date for generator use, vanpool mitigation, a road speed limit, and the addition of gravel surfacing to areas that are currently dirt. The project's ongoing operations will not result in incremental increases that could contribute to cumulatively related impacts. Due to the geographic isolation of the project, odor was not identified as a potentially significant or potentially cumulatively significant impact.

c) The Regional Water Quality Control Board noted that the project would fall into the Tier 2 level under the Cannabis General Order and that they do not see any violations of the Cannabis General Order or water quality issues.

6. FINDING: **CEQA [illegible]:** [illegible] Humboldt and the North Coast Environmental Center on the March 2022 CEQA IS/MND on April 20, 2022, following the close of the 30-day public review period. This comment repeats some of the comments from the March 3, 2022 letter. The County has considered all of the CEQA comments submitted from the public up to this point, including those that were submitted after the comment period established by CEQA. None of the comments change or alter the conclusion of the MND.

EVIDENCE: (a) A potentially significant, or potentially cumulative significant impact, was identified in the revised IS/MND in relation to the special status plant Danthonia californicus, and a mitigation measure has been added to reduce the potential impact to a less than significant level. Despite the assertion by Mr. Holder that an EIR is required no other comments provided by Mr. Holder demonstrate the potential for a significant adverse impact from the proposed project. Mr. Holder argues that the scale of the project necessitates an EIR, that the hydrologic assessment of the well is questionable, that the road network is inadequate and that the cumulative impacts on grassland habitat rise to the level of "substantial evidence" of a significant adverse impact. However, as noted elsewhere in this report these issues have been thoroughly analyzed by qualified experts, and Mr. Holder provides no facts or expert opinion to contradict these technical studies. Appended to Mr. Holder's letter are expert opinions on non-related projects that have limited relevance to the proposed project. Section 15064(f)(5) of the CEQA Guidelines states that "*Argument, speculation, unsubstantiated opinion or narrative … shall not constitute substantial evidence. Substantial evidence shall include facts, reasonable assumptions based upon facts, and expert opinion supported by facts.*" The comments from Mr. Holder on the March 2022 MND allege that the County is ignoring his comments regarding the adequacy of the well pump test and the driveway's compliance with the Fire Safe standards however these comments are well addressed in the MND. Mr. Holder's letter asserts that the well pump tests do not comply with the County pump test requirements however those requirements do not apply to agricultural wells. Mr. Holder asserts that the driveway does not meet the Fire Safe requirements for roads however this is because it is a driveway and not a road and further that agricultural roads are exempt from the Fire safe standards. Nonetheless, the access drive has been determined by a licensed engineer to be functionally appropriate for the traffic associated with the project.

FINDINGS FOR CONDITIONAL USE PERMIT

7. FINDING The proposed development is in conformance with the County General Plan, Open Space Plan, and the Open Space Action Program.

EVIDENCE: a) General agriculture uses such as cannabis cultivation are a planned and anticipated use in the Agricultural Exclusive (AE) land use designation. The proposed project is entirely within the area of the subject parcel that is designated AE. The use of an agriculturally designated property for commercial agriculture is consistent with the Open Space Plan and Open Space Action Program.

b) The project is consistent with the Conservation and Open Space Scenic Resources policies as the only applicable policy is related to restricting light and glare. The project will comply with the CMMLUO which requires all night lighting be completely shielded in compliance with International Dark Sky Standards.

c) The project is consistent Conservation and Open Space Element Biological Resources as evidenced by compliance with the following polices and standards:

1. Streamside Management Areas (BR-P5, P6): There are mapped Streamside Management Areas (SMAs). All development associated with the project is located outside of SMAs.

2. Biological Resource Maps (BRP11): A biological assessment was prepared did not find potential impacts to Marbled murrelet or Northern Spotted Owl (NSO). No special status species were found on-site, a mitigation measure has been applied for preconstruction surveys for special status amphibians.

3. Agency Review (BR-P12): Consistent with this policy, the county has consulted with the California Department of Fish and Wildlife in the preparation of the Initial Study/Mitigated Negative Declaration and based on responses to CDFW requests, project modifications, mitigation measures and conditions of approval, the project is consistent with the protection of Biological Resources.

d) The project is consistent with the Water Resources Element through compliance with the following goals and policies:
i. Sustainable Management (WR-P1).
ii. Protection for Surface and Groundwater Uses (WR-P2).
The project does not utilize diversion from a surface water source but will use confirmed non-diversionary well water and captured rainfall from a 2.2-million-gallon rainwater catchment pond and a one-million-gallon rainwater catchment tank.

iii. Project Design (WR-P12.) The project is not located in any SMA and thus will not detract from the function of rivers, streams, ponds, wetlands or their setback areas.

iv. Rain Catchment Systems (WR-P20). Rainwater catchment is a component of the project, providing for approximately 3.2 million gallons of the annual water use.

8. FINDING The project is consistent with the Humboldt County Zoning Regulations and the Agriculture General (AG) Zone District.

EVIDENCE: a) The AG Zone is intended to be applied in areas in which agriculture is the desirable predominant use. General agricultural uses are principally permitted uses in the AG Zone. Section 314-7.2.

9. FINDING The proposed project is consistent with the requirements of the CMMLUO Provisions of the Zoning Ordinance.

EVIDENCE: a) The project parcel size is 1,221 acres and the proposal would allow 6.39 acres of outdoor cannabis cultivation. Section 314-55.4.8.2.1.1 allows one acre of cultivation for each one-hundred acre increment of available land in the AG Zone subject to a Conditional Use Permit.

b) The proposed cultivation site is flat with less than 15% slope.

c) The cultivation areas are setback more than 30 feet from all property lines.

d) The subject parcel has been determined to be a legal parcel under the provisions of the Subdivision Map Act.

e) Section 55.4.8.2.1 requires the use of prime soil and limits the use of prime soil on a parcel to 20%. The total area of prime soil on the parcel is 1,742,160 s.f. (40 acres); the project will cultivate a maximum of 278,160 s.f. (6.39 acres), or about 16% of available prime agricultural soil. The proposed project is within the limitation on use of prime soils.

f) The project will not utilize a diversionary water source.

g) The location of the cultivation complies with all setbacks required in Section 314-55.4.11.d. It is more than 30 feet from any property line and more than 600 feet from any school, church, public park, or tribal cultural resource.

10. FINDING The cultivation of 6.39 acres of cannabis and associated infrastructure including 10,000 square feet of propagation and the conditions under which it may be operated or maintained will not be detrimental to the public health, safety, or welfare or materially injurious to properties or improvements in the vicinity.

EVIDENCE a) The project is served by a County Maintained Road which is developed to a Road Category 4 to the property and will be providing a vanpool service for employees. There will not be a decrease in the level of service of any roadway as a result of this project. The project has been designed to comply with all applicable standards of the Humboldt County Code which are intended to protect the public health, safety and welfare.

b) The site is in a rural part of the County where the typical parcel size is over 40 acres, and many of the land holdings are very large. The proposed cannabis will not be in a location where there is an established neighborhood or other sensitive receptor such as a school, church, park, or other use which may be sensitive to cannabis cultivation. Approving cultivation on this site and the other sites which have been approved or are in the application process will not change the character of the area due to the large parcel sizes in the area.

11. FINDING The proposed development does not reduce the residential density for any parcel below that utilized by the Department of Housing and Community Development in determining compliance with housing element law.

EVIDENCE The parcel was not included in the housing inventory of Humboldt County's 2019 Housing Element.

12. FINDING Approval of this project is consistent with Humboldt County Board of Supervisors Resolution No. 18-43 which established a limit on the number of permits and acres which may be approved in each of the County's Planning Watersheds.

EVIDENCE The project site is located in the Lower Eel River Planning Watershed, which under Resolution 18-43 is limited to 336 permits and 116 acres of cultivation. With the approval of this project the total approved permits in this Planning Watershed would be 83 permits and the total approved acres would be 40.58 acres of cultivation.

DECISION

NOW, THEREFORE, based on the above findings and evidence, the Humboldt County Planning Commission does hereby:

- Adopt the findings set forth in this resolution; and
- Conditionally approves the Use Permit, based upon the Findings and Evidence and subject to the conditions of approval attached hereto as Attachment 1 and incorporated herein by reference; and

Adopted after review and consideration of all the evidence on **May 5, 2022**.

The motion was made by COMMISSIONER _____and second by COMMISSIONER _____ and the following ROLL CALL vote:

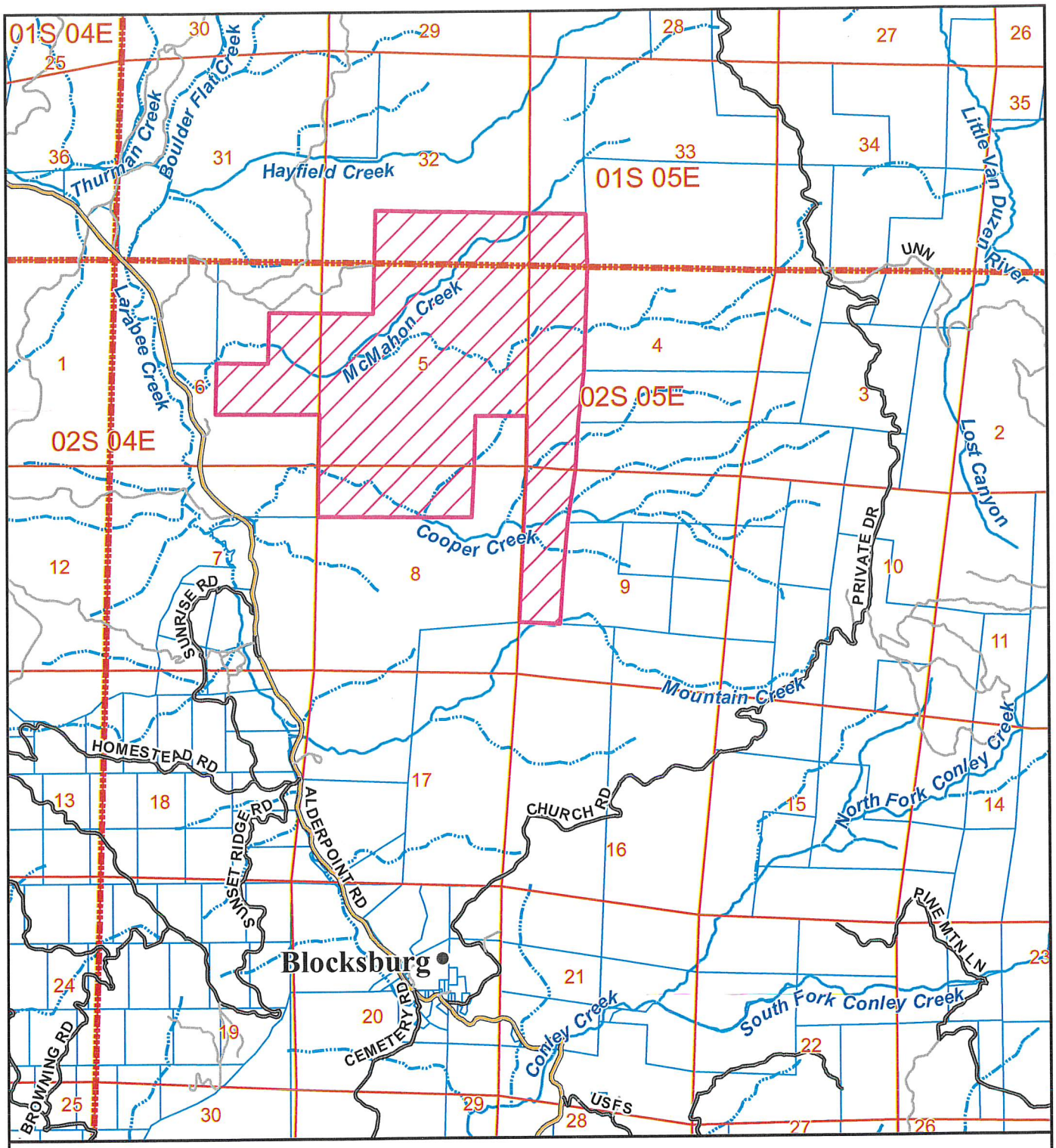
AYES:	COMMISSIONERS:
NOES:	COMMISSIONERS:
ABSENT:	COMMISSIONERS:
ABSTAIN:	COMMISSIONERS:
DECISION:	

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

_____

John Ford, Director

Planning and Building Department



LOCATION MAP

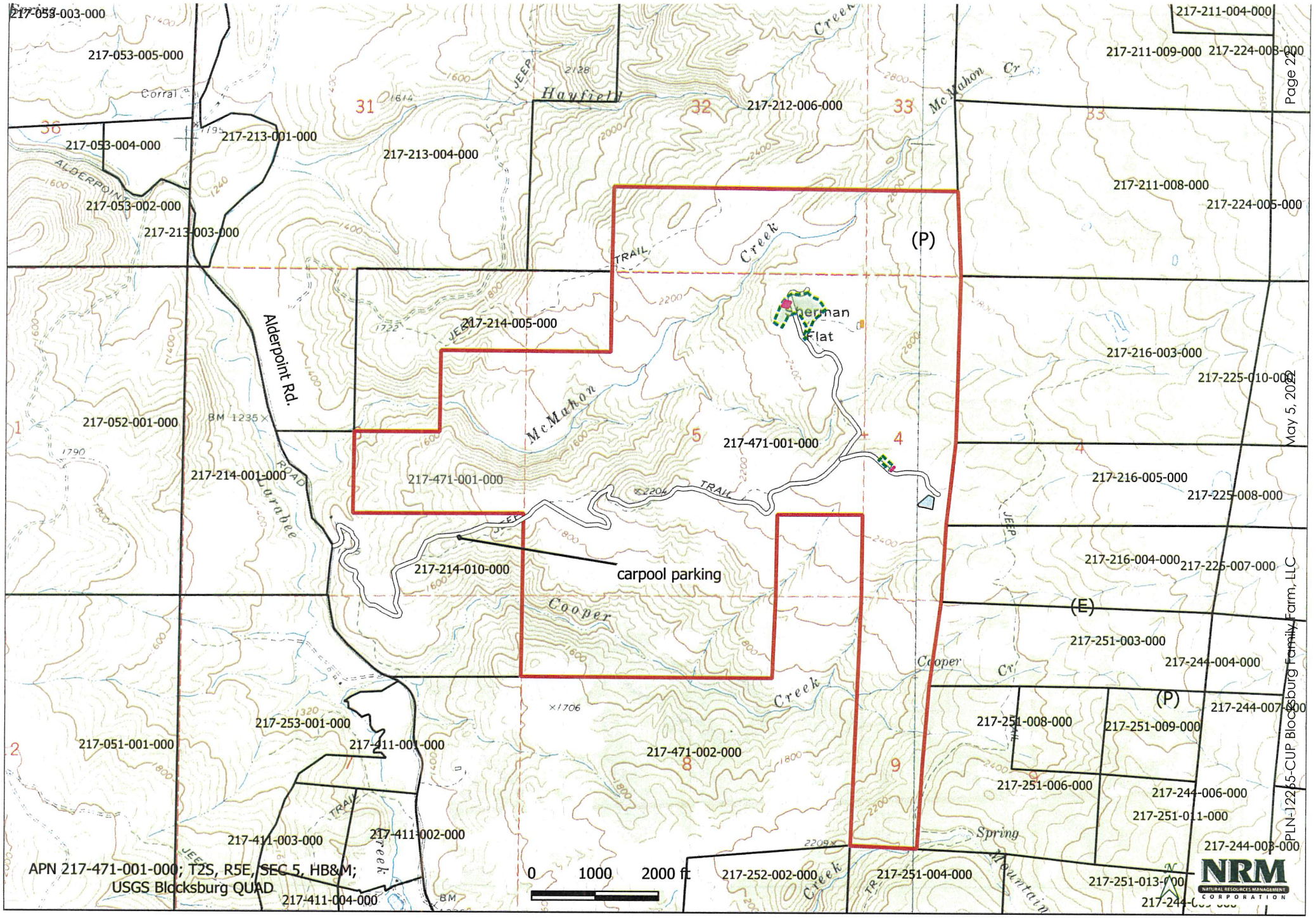
BLOCKSBURG FAMILY FARMS LLC
CONDITIONAL USE PERMIT
BLOCKSBURG AREA
PLN-12265-CUP
APN: 217-471-001
T2S R5E S4-6,8-9 HB&M (Blocksburg)

Project Area =

N

0 0.25 0.5 0.75 Miles

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



APN 217-471-001-000; T2S, R5E, SEC 5, HB&M;
USGS Blocksburg QUAD

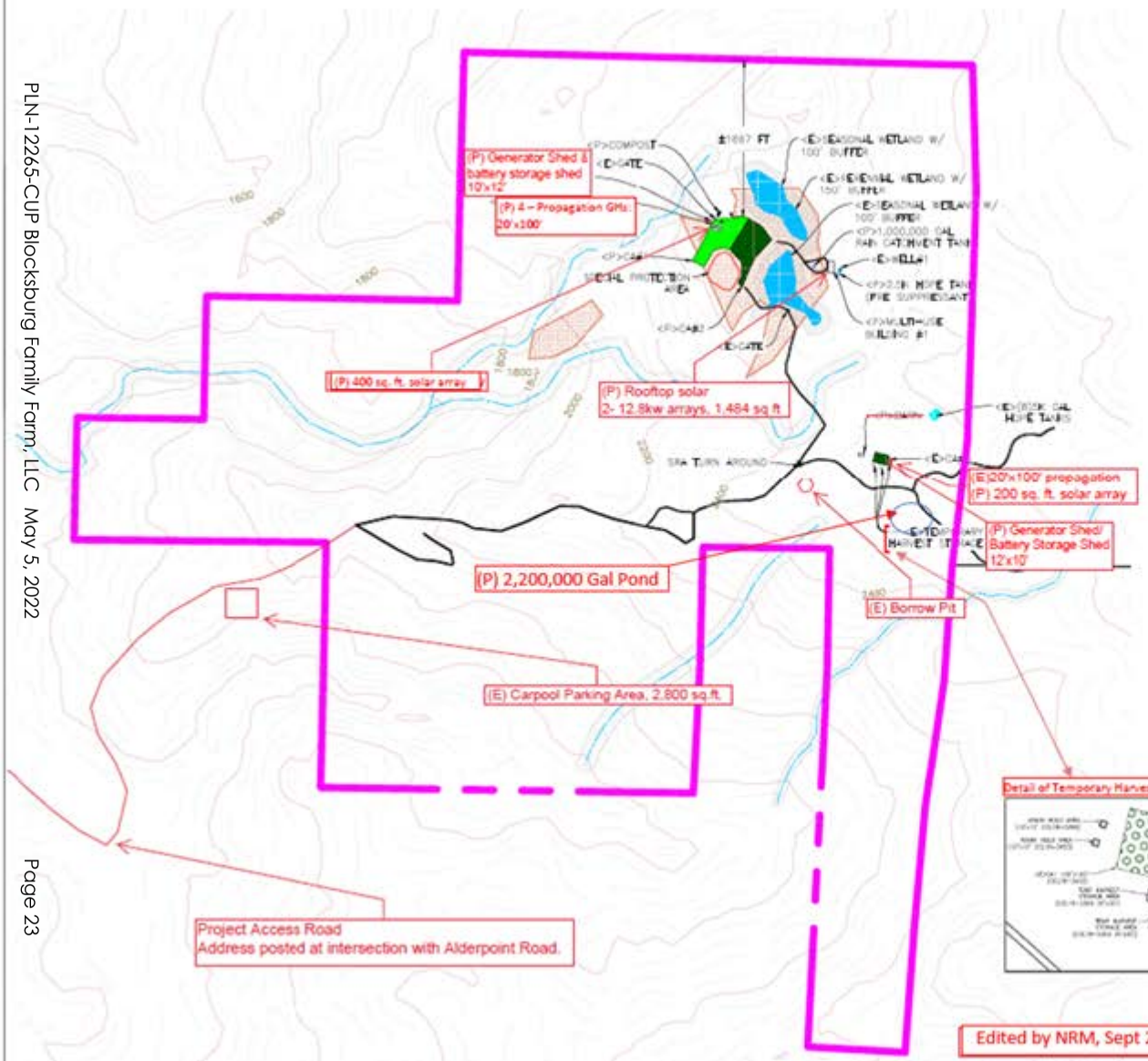
NRM NATURAL RESOURCES MANAGEMENT CORPORATION

May 5, 2022

PLN-12265-CUP Blocksburg Family Farm, LLC

PARCEL OVERVIEW

APN: 217-471-001



CULTIVATION INFORMATION

PROPOSED LIGHT DEPRIVATION (OUTDOOR) CULTIVATION AREA

CA	SQ FT
1	130,680
TOTAL PROPOSED LIGHT DEPRIVATION CULTIVATION AREA =	130,680 SQ FT

EXISTING OUTDOOR CULTIVATION AREA

CA	SQ FT
1	10,800
TOTAL EXISTING OUTDOOR CULTIVATION AREA =	10,800 SQ FT

PROPOSED FULL-SUN (OUTDOOR) CULTIVATION AREA

CA	SQ FT
2	130,680
TOTAL PROPOSED FULL-SUN CULTIVATION AREA =	130,680 SQ FT

CULTIVATION BUILDINGS AND USE

BUILDING	USE	SIZE	YEAR
MULTI-USE BUILDING #1 (PROPOSED)	DRYING/PROCESSING/ HARVEST STORAGE/ AGRICULTURAL CHEMICAL STORAGE	12X50'	TBD

WATER STORAGE AND USE

TYPE	DATE OF INSTALLATION	QUANTITY	GALLONS	TOTAL GALLONS
HDPE TANK	TBD	8	5,000	40,000
RAIN CATCHMENT TANK	TBD	1	1,000,000	1,000,000
HDPE TANK (FIRE SUPPRESSANT)	TBD	1	2,500	2,500
		TOTAL AMOUNT OF WATER STORAGE=		1,042,500 GALLONS

WATER SOURCE

TYPE	LAT/LONG
WELL#1	40.3250,-123.6390
WELL#2	40.3280,-123.6347

POWER SOURCE

TBD

SURROUNDING BUILDINGS

THERE ARE NO SCHOOLS, BUS STOPS, PLACES OF WORSHIP, PUBLIC PARKS OR TRIBAL CULTURAL RESOURCES WITHIN 600 FEET OF THE CULTIVATION SITE.

THERE ARE NO OFF SITE RESIDENCES WITHIN 300 FEET OF THE CULTIVATION SITE.

LEGEND

CLASS II STREAM WITH REQUIRED 100 FT SUFFER

UNNAMED CLASS III STREAM WITH REQUIRED 50 FT SUFFER

HUMBOLDT GIS SLOPE 15% OR LESS

PRIME AG SOILS

GREEN ROAD CONSULTING

PROJECT INFORMATION

PROPERTY OWNER: ROWALD GLASS

ADDRESS: APN: 217-471-001

SHEET INFO: PARCEL OVERVIEW

REVISIONS		
NO.	NOTES	DATE
1	xxxxxxxxx	xxxxx
2	xxxxxxxxx	xxxxx
3	xxxxxxxxx	xxxxx
4	xxxxxxxxx	xxxxx
5	xxxxxxxxx	xxxxx
6	xxxxxxxxx	xxxxx

DATE 5/26/21

DRAFTER XX

SCALE AS SHOWN

SHEET C1

ATTACHMENT 1
RECOMMENDED CONDITIONS OF APPROVAL

APPROVAL OF THE CONDITIONAL USE PERMIT IS CONDITIONED ON THE FOLLOWING TERMS AND REQUIREMENTS WHICH MUST BE SATISFIED BEFORE THE CANNABIS CULTIVATION CAN BEGIN OPERATION AND BEFORE ISSUANCE OF ANY BUILDING PERMITS.

A. General Conditions

1. The applicant is responsible for obtaining all necessary County and State permits and licenses, and for meeting all requirements set forth by other regulatory agencies.

2. The project shall be developed and operated in accordance with the Operations Plan and project site development plans and all conditions of approval and mitigation measures.

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

4. The Applicant is responsible for costs for post-approval review for determining project conformance with conditions. A deposit is collected to cover this staff review. Permit conformance with conditions must be demonstrated prior to release of building permit or initiation of use and at time of annual inspection. A conformance review deposit as set forth in the schedule of fees and charges as adopted by ordinance of the Humboldt County Board of Supervisors (currently $750) shall be paid within sixty (60) days of the effective date of the permit or upon filing of the Compliance Agreement (where applicable), whichever occurs first. Payment shall be made to the Humboldt County Planning Division, 3015 "H" Street, Eureka.

5. The applicant shall submit a check to the Planning Division payable to the Humboldt County Clerk/Recorder in the amount of $2,598.00. Pursuant to Section 711.4 of the Fish and Game Code, the amount includes the CDFW fee plus the $50 document handling fee to the Clerk. This fee is effective through December 31, 2021, at such time the fee will be adjusted pursuant to Section 713 of the Fish and Game Code. Alternatively, the applicant may contact CDFW by phone at (916) 651-0603 or through the CDFW website at www.wildlife.ca.gov for a determination stating the project will have no effect on fish and wildlife. If CDFW concurs, a form will be provided exempting the project from the $2,598.00 fee payment requirement. In this instance, only a copy of the CDFW form and the $50.00 handling fee is required.

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

7. The applicant shall secure permits for all structures related to the cannabis cultivation and other commercial cannabis activity, including existing and proposed greenhouses, water tanks over 5,000 gallons, existing and proposed structures associated with drying and storage or any activity with a nexus to cannabis, and any noise containment structures, as necessary. The plans submitted for building permit approval shall be consistent with the project description and the approved project

site plan. A letter or similar communication from the Planning and Building Department verifying that all structures related to the cannabis cultivation are permitted will satisfy this condition.

8. The applicant shall submit a grading, erosion, and sediment control plan s prepared by a qualified engineer. The plan shall identify the cubic yards of all grading that has been completed and any proposed. A letter or similar communication from the Building and Planning Department verifying that all grading related to the cannabis cultivation operation is permitted, or not needed, will satisfy this condition.

9. Where feasible, new utilities shall be underground or sited unobtrusively if above ground.

10. The applicant shall obtain from the Building Inspection Division any Building or other required permits prior to commencing construction activities or the approved use.

11. The applicant shall be compliant with the County of Humboldt's Certified Unified Program Agency (CUPA) requirements regarding any hazardous materials. A written verification of compliance shall be required before release of the Building Permit and initiation of operations. Ongoing proof of compliance with this condition shall be required at each annual inspection in order to keep the permit valid.

12. All signage shall comply with Section 314-87.2 of the Humboldt County Code, and shall be subject to review and approval by the Planning Director. Signage shall be compatible with surrounding uses and not distract from visitor serving uses in the area.

13. All driveways and private road intersections onto the County Road shall be maintained in accordance with County Code Section 341-1 (Sight Visibility Ordinance). This condition shall be completed to the satisfaction of the Department of Public Works prior to commencing operations, final sign-off for a building permit, or Public Works approval for a business license.

14. Any existing or proposed non-county-maintained access roads that will serve as access for the proposed project that connect to a county-maintained road shall be improved to current standards for a commercial driveway. An encroachment permit shall be issued by the Department of Public Works prior to commencement of any work in the County maintained right of way. If the County road has a paved surface at the location of the access road, the access road shall be paved for a minimum width of 20 feet and a length of 50 feet where it intersects the County road.

15. All recommendations in the Road Evaluation Report, February 6, 2020, Omsberg & Preston, for non-county-maintained roads shall be constructed/implemented to the satisfaction of the Planning & Building Department prior to commencing operations, final sign-off for a building permit, or approval for a business license. A grading permit may be required. Check with the Building Division of the Planning and Building Department for any permit requirements. Requirements of the Road Evaluation are as follows:

    a. The road grade at mileage post 1.6 and 2.2 are 15 and 16 percent, respectively. The grade at mileage post 2.2 is passable and will need grading this Spring.
    b. The existing bridge near mileage post 2.5 show signs of age. The bridge deck has settled unevenly, and an inspection of the log abutments showed rotting. It is recommended to replace this bridge with another bridge or an adequate corrugated metal pipe arch.
    c. Regular annual road maintenance including grading of the road, side ditch and lead off ditch, and spot rocking where needed.

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

17. No processing can be approved until an acceptable site suitability report can establish potential for onsite waste treatment system. This shall be provided to Humboldt County Department of Environmental Health (DEH).

18. An invoice, or equivalent documentation, is provided to the Humboldt County Department of Environmental Health (DEH) to confirm the continual use of portable toilets to serve the needs of cultivation staff prior to reissuance of annual permit.

19. All grading, building, plumbing, electrical and mechanical permits and/or Agricultural Exemption must be obtained (per Humboldt County Building Division).

20. The applicant shall maintain a weekly record of water used for cultivation. A copy of these records shall be stored and maintained at the cultivation site and kept separately or differentiated from any record of water use for domestic, fire protection, or other irrigation purposes. Irrigation records shall be kept onsite and made available at the applicant's annual inspection.

21. Noise generated from the operation, including fans and dehumidifiers, shall not exceed 50db at 100 feet from the generator as required by Section 314-55.4.12.6 Humboldt County Code.

22. All electrical needs for the proposed new propagation facilities and proposed new drying and processing facilities shall be sourced exclusively from renewable energy systems. Prior to operation the applicant shall submit an energy budget detailing the power needs and capacity of the renewable energy system.

23. The Project shall not proceed past Phase 1 of development until after the rainwater catchment pond is built and operational, and the additional 1-million-gallon rainwater storage tank completed within two years of full cultivation buildout.

24. The applicant shall submit copies of all documents filed with the State Water Resources Control Board. The applicant is required to adhere to and implement the requirements contained in the SWRCB's Cannabis Cultivation Policy, the General Order, the Site Management Plan, and the Notice of Applicability. A copy of the reporting form portion of the Mitigation and Reporting Program (MRP) shall be submitted annually to the Planning and Building Department concurrent with the submittal to the SWRCB.

25. **MM Bio 1**: If construction takes place during the nesting season for ***Western Pond Turtles*** preconstruction surveys by a qualified biologist will be conducted. If turtles are found in the construction area, they will be left in place (not handled) and construction activities will stop in the vicinity of the turtle until it leaves the area. If nests are found, a 200-foot no-work buffer will be established. Often CDFW considers specific local factors when making buffer size decisions and will be consulted if nests are found. Nest buffers will remain in place until turtles have hatched and left the nest. If work takes place outside of the nesting season, no surveys are necessary.

26. **MM Bio 2**: As an additional protection for western pond turtles, if the construction takes place during nesting season, the qualified biologist onsite will provide a short onsite training to construction employees that will be working in the area and may encounter turtles after the preconstruction

survey. The training will be successful if after the training, the employees will be able to (1) identify by sight, a Western Pond Turtle, (2) know the appropriate activity buffer to provide the turtle, and (3) know when to resume construction work in the area where the turtle was found.

27. **MM Bio 3**: The project will install permanent, all-season signs that describe wetland and pond setback areas as an Environmentally Sensitive Area (ESA). Signs will have a clear mandate for 'no entry.' Because the proposed six (6) acres of cultivation area will be fenced, the west side of the wetlands and pond will not be directly exposed to intrusion by humans. The east side of the pond and wetlands faces the proposed Multi-Use Building, a future construction site and hub of project activity; the eastern side of the wetland/pond is therefore more likely to see increased human and vehicle intrusion. On this eastern side, the project will install a minimum of six (6) signs that demarcate the riparian area setbacks. The signs will be installed prior to construction at which point they will be flagged to ensure that they are seen by construction crews. Signs will be placed along road borders and/or wetland setback boundaries in such a way that the potential for wetland damage is prevented. Alternatively, the project can choose to install split rail fencing (or an equivalent natural material barrier) in 6 to 10-foot lengths to deter human intrusion into the sensitive area. Sign or fence length locations will be identified by a qualified biologist prior to project construction. The qualified biologist will have the authority to require additional signs.

28. **MM Bio 4**: To ensure that western pond turtles are not adversely impacted by vehicle traffic, the project will enforce a 10mph speed limit on the unnamed project access road. Before construction begins, the project will post at least two (2) 10mph speed limit signs: once to inform eastbound drivers entering the access road from Alderpoint Rd. and once to inform westbound drivers leaving the Multi-Use Building and returning to the Alderpoint Rd. intersection. The speed limit signs will be posted at a height of five (5) feet above the ground and clearly visible to oncoming traffic. The project speed limit will be enforced by the project proponents as dust reduction is critical for cannabis plant health. Humboldt County Planning and Building, Cannabis Services Division will ensure that the speed limits have been posted as described.

29. **MM Bio 5**: To mitigate for potential impacts to migratory birds, 3 consecutive preconstruction surveys for these species should take place no more the one week prior the planting (and associated mowing and other disturbances) and construction planned for Phase I of the project. The survey area will include the six (6) acres where cultivation Is proposed on Sherman Flat and the footprint of the propagation greenhouses, proposed rainwater catchment tank and pond locations and burned down barn (Multi-Use Building). The footprint of the disturbance areas and a 300-foot buffer will be surveyed. Should any nests be found, a 100-foot no-work buffer around the nest will be established and CDFW will be consulted for additional direction going forward, such as buffer modifications or the delaying of work until nestlings have fledged. Alternatively, if ground disturbance begins in August (or later in the season), these species will have completed breeding for the season and no surveys are necessary.

30. **MM Bio 6**: To ensure that the sensitive species found in the seasonal depressional wetland in the southeast portion of the Study Area, *Lasthenia glaberrima* Herbaceous Alliance, and *Navarretia leucocephala ssp. bakeri*, are adequately protected, an additional 50-feet of riparian setback is to be added to the standard 100-foot setback (SWRCB, 2019) around the seasonal depressional wetland in the southeast portion of the Study Area (Figure 12). This buffer increase is recommended as a site-specific mitigation to better protect the documented sensitive natural community and special status plant species from potential project impacts.

31. MM Bio 7: To ensure that impacts to *Danthonia californica* prairie are notsignificant or cumulatively significant, the project will implement a Sensitive Natural Community Mitigation and Monitoring Plan. This plan, found in Appendix O_ of the IS/MND outlines the onsite location and procedures and success criteria that will result in the creation of 0.70 acres (30,492 square feet) of high-quality California oatgrass prairie (30% or greater relative cover o *Danthonia californica*) to mitigate for impacts to high quality California oatgrass prairie at a 1:1 ratio.

32. **MM Cultural 1**: To ensure that the identified cultural resources are not adversely affected by the proposed project, the Archeology Report provides the following mitigation:
Avoidance of Cultural Resources
This Environmentally Sensitive Area (ESA) Action Plan provides guidance to ensure that Site 40-1 is not inadvertently affected by construction or cultivation activities. The ESA calls for no ground disturbing activities to occur within the limits of Site 40-1. No staging, equipment parking, or laydown of materials shall occur within the ESA. Within the ESA all vehicle traffic will be confined to within existing roadways. The ESA shall consist of colored stakes placed every 30 feet along the perimeter of the recorded site limits to ensure that no ground disturbing activities associated with the project are allowed into this area without appropriate archaeological and Native American monitors. The ESA boundaries will allow traffic and equipment to move through the ESAs and will provide personnel with clearly defined limits where ground disturbance can take place. Ground disturbing construction activities, however, will be allowed to take place within an ESA only in the presence of archaeological and Native American monitors. The ESA stakes will be erected as a first order of work and prior to any construction/cultivation activities under the direction of a qualified professional archaeologist.

33. **MM Cultural 2**: To ensure that accidentally discovered cultural resources or human remains are not adversely affected by the proposed project, all project employees that will be breaking ground (project construction, tilling, etc.) will be appraised of the accidental discovery protocols, described below. The project proponent will deliver the protocols as an oral presentation or in writing. All employees will acknowledge that they have heard/read the protocols by signing their names. The project proponent will deliver the signed document to the Humboldt County Planning and Building Department. If previously unidentified cultural resources are encountered during project implementation, avoid altering the materials and their stratigraphic context. A qualified professional archaeologist should be contacted to evaluate the situation. Project personnel should not collect cultural resources. Prehistoric resources include, but are not limited to, chert or obsidian flakes, projectile points, mortars, pestles, and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic resources include stone or abode foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.
Inadvertent Discovery of Human Remains
If human remains are discovered during project construction, work will stop at the discovery location, within 20 meters (66 feet), and any nearby area reasonably suspected to overlie adjacent to human remains (Public Resources Code, Section 7050.5). The Humboldt County coroner will be contacted to determine if the cause of death must be investigated. If the coroner determines that the remains are of Native American origin, it is necessary to comply with state laws relating to the disposition of Native American burials, which fall within the jurisdiction of the NAHC (Public Resources Code, Section 5097). The coroner will contact the NAHC. The descendants or most likely descendants of the deceased will be contacted, and work will not resume until they have made a recommendation to the landowner or the person responsible for the excavation work for means of treatment and disposition, with appropriate dignity, of the human remains and any associated grave goods, as provided in Public Resources Code, Section 5097.98.

34. **MM Transportation 1**: Beginning in the second season of cultivation (Phase II), when the project intends to hire a number above eight (8) employees, the project will provide one or more passenger vans such that the daily number of employee -generated round trips is less than eight (8). The project proponent will provide to, the Humboldt County Planning and Building Department (HCPBD), Cannabis Services Division, by Dec 31st of the year, with evidence of van use (lease/purchase agreement, contract, or equivalent) beginning the second season of cultivation after permitting (Phase II) and annually until directed otherwise by the HCPBD.

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

1. The combination of background, generator, and greenhouse fan or other operational equipment created noise must not result in the harassment of Northern Spotted Owl species as required to meet the performance standards for noise set by Department Policy Statement No. 16-005 clarifying Commercial Medical Marijuana Land Use Ordinance (CMMLUO) Section 55.4.11 (o) requirements. The combined noise levels measured at 100 feet or the edge of habitat, whichever is closer, shall be at or below 50 decibels. Conformance will be evaluated using current auditory disturbance guidance prepared by the U.S. Fish and Wildlife Service and further consultation where necessary. A building permit shall be obtained should any structures be necessary for noise attenuation.

2. Should the Humboldt County Planning Division receive complaints that the lighting or noise is not complying with the standards, within ten (10) working days of receiving written notification that a complaint has been filed, the applicant shall submit written verification that the lights' shielding and alignment, and noise levels have been repaired, inspected, and corrected as necessary.

3. Ensure any back-up generators are located on stable surfaces with a minimum 200 feet buffer from all waterways measured horizontally from the outer edge of the riparian drip zone.

4. Prohibition on use of synthetic netting. To minimize the risk of wildlife entrapment, Permittee shall not use any erosion control and/or cultivation materials that contain synthetic (e.g., plastic or nylon) netting, including photo- or biodegradable plastic netting. Geotextiles, fiber rolls, and other erosion control measures shall be made of loose-weave mesh, such as jute, hemp, coconut (coir) fiber, or other products without welded weaves.

5. All refuse shall be contained in wildlife proof storage containers, at all times, and disposed of at an authorized waste management facility.

6. Should any wildlife be encountered during work activities, the wildlife shall not be disturbed and be allowed to leave the work site unharmed.

7. The use of anticoagulant rodenticide is prohibited.

8. The operator shall provide information to all employees about the potential health impacts of cannabis use on children. Information shall be provided by posting the brochures from the Department of Health and Human Services titled "Cannabis Palm Card" and "Cannabis Rack Card." This information shall also be provided to all employees as part of the employee orientation.

9. All components of project shall be developed, operated, and maintained in conformance with the Project Description, the approved Site Plan, the Plan of Operations, and these conditions of approval. Changes shall require modification of this permit except where consistent with Humboldt County Code Section 312-11.1, Minor Deviations to Approved Plot Plan. If offsite processing is chosen to be the preferred method of processing, this permit shall be modified to identify the offsite licensed facility.

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

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

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

13. Confinement of the area of cannabis cultivation, processing, manufacture, or distribution to the locations depicted on the approved site plan. The commercial cannabis activity shall be set back at least 30 feet from any property line, and 600 feet from any school, school bus stop, church or other place of religious worship, or tribal cultural resources, except where a reduction to this setback has been approved pursuant to Section 55.4.11(d).

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

15. Comply with the terms of any applicable Lake and Stream Alteration (1600 or 1602) Permit obtained from the California Department of Fish and Wildlife (CDFW).

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

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

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

19. Pay all applicable application, review for conformance with conditions and annual inspection fees.

20. Fuel shall be stored and handled in compliance with applicable state and local laws and regulations, including the County of Humboldt's Certified Unified Program Agency (CUPA) program, and in such a way that no spillage occurs.

21. The master log books maintained by the applicant to track production and sales shall be maintained for inspection by the County.

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

Performance Standards for Cultivation and Processing Operations

23. Pursuant to Business and Professions Code section 26051.5(a)(8), an applicant seeking a cultivation license shall "provide a statement declaring the applicant is an 'agricultural employer,' as defined in the Alatorre-Zenovich-Dunlap-Berman Agricultural Labor Relations Act of 1975 (Part 3.5 commencing with Section 1140) of Division 2 of the Labor Code), to the extent not prohibited by law."

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

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

26. All persons hiring employees to engage in commercial cannabis cultivation and processing shall comply with the following Employee Safety Practices:
    a. Cultivation operations and processing operations must implement safety protocols and provide all employees with adequate safety training relevant to their specific job functions, which may include:
        (1) Emergency action response planning as necessary;
        (2) Employee accident reporting and investigation policies;
        (3) Fire prevention;
        (4) Hazard communication policies, including maintenance of material safety data sheets (MSDS);
        (5) Materials handling policies;
        (6) Job hazard analyses; and
        (7) Personal protective equipment policies, including respiratory protection.
    b. Cultivation operations and processing operations must visibly post and maintain an emergency contact list which includes at a minimum:
        (1) Operation manager contacts;
        (2) Emergency responder contacts; and
        (3) Poison control contacts.
    c. At all times, employees shall have access to safe drinking water and toilets and handwashing facilities that comply with applicable federal, state, and local laws and regulations. Plumbing facilities and water source must be capable of handling increased usage without adverse consequences to neighboring properties or the environment.
    d. On site-housing provided to employees shall comply with all applicable federal, state, and local laws and regulations.

27. All cultivators shall comply with the approved processing plan as to the following:
    a. Processing practices
    b. Location where processing will occur
    c. Number of employees, if any

d. Employee Safety Practices
e. Toilet and handwashing facilities
f. Plumbing and/or septic system and whether or not the system is capable of handling increased usage
g. Drinking water for employees
h. Plan to minimize impact from increased road use resulting from processing
i. On-site housing, if any

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

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

30. Permit Renewals to Comply with Updated Laws and Regulations. Permit renewal is subject to the laws and regulations effective at the time of renewal, which may be substantially different than the regulations currently in place and may require the submittal of additional information to ensure that new standards are met.

31. Acknowledgements to Remain in Full Force and Effect. Permittee acknowledges that the County reserves the right to reduce the size of the area allowed for cultivation under any clearance or permit issued in accordance with this section in the event that environmental conditions, such as a sustained drought or low flows in the watershed in which the cultivation area is located, will not support diversions for irrigation.

32. Transfers. Transfer of any leases or permits approved by this project is subject to the review and approval of the Planning Director for conformance with CMMLUO eligibility requirements and agreement to permit terms and acknowledgments. The fee for required permit transfer review shall accompany the request. The request shall include the following information:
    a. Identifying information for the new owner(s) and management as required in an initial permit application;
    b. A written acknowledgment by the new owner in accordance as required for the initial permit application;
    c. The specific date on which the transfer is to occur;
    d. Acknowledgement of full responsibility for complying with the existing permit; and
    e. Execution of an Affidavit of Non-diversion of Medical Cannabis.

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

Informational Notes:

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

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

ATTACHMENT 2

Mitigation Monitoring and Reporting Program

12265 CUP, Blocksburg Family Farm
Mitigation Monitoring and Reporting Program
Revised 4/6/2022

The Initial Study / Mitigated Negative Declaration (IS/MND) for Blocksburg Family Farms, LLC has evaluated the potential environmental impacts associated with the expansion of cannabis cultivation and activities on Humboldt County APN 217-471-001. As a result of this evaluation, ten (10) mitigation measures were identified that, if carried out as planned, will reduce potential environmental impacts from potentially significant to less than significant levels.

State Assembly Bill AB 3180 was enacted by the California State Legislature in 1988 to provide a mechanism to ensure that mitigation measures adopted through the CEQA process are implemented in a timely manner and in accordance with the terms of project approval.)s are required to adopt a monitoring or reporting program designed to ensure compliance during project implementation.

To ensure that these mitigation measures are implemented as approved and in a timely manner, a Mitigation Monitoring and Reporting Program (MMRP) has been developed. Compliance with the MMRP was legislated with California Assembly Bill 3180 in 1988 and is represented in CEQA section 21081.6. The MMRP is meant to provide a concise and organized method for the lead agency, other public agencies, and the community to determine compliance. The MMRP also, importantly, serves as a valuable tool for the project proponent as they work to fulfill their obligations to the community and the environment.

In the MMRP below, the following components are identified:

Mitigation Measure	This column provides the text of the mitigation measure
Timing	This column identifies the time frame in which the mitigation will be implemented
Responsible for Implementation	This column identifies the person or person's that will carry out the mitigation.
Responsible for Verification	This column identifies the entity that assumes the overall responsibility for confirming compliance with each specific mitigation.
Form of Verification	This column identifies the method in which compliance with the mitigation will be communicated to the responsible party.
Verification	This column is to be dated and signed by the person/s identified at 'Responsible for Verification' to indicate that the requirements of the mitigation measure have been met.

Mitigation Monitoring and Reporting Program (MMRP) for Blocksburg Family Farms, LLC					
Mitigation Measure	**Timing**	**Responsible for Implementation**	**Responsible for Verification**	**Form of Verification**	**Verified**
Biological Resources – Western Pond Turtle					
Biological 1: If construction takes place during the nesting season for ***Western Pond Turtles*** preconstruction surveys by a qualified biologist will be conducted. If turtles are found in the construction area, they will be left in place (not handled) and construction activities will stop in the vicinity of the turtle until it leaves the area. If nests are found, a 200-foot no-work buffer will be established. Often CDFW considers specific local factors when making buffer size decisions and will be consulted if nests are found. Nest buffers will remain in place until turtles have hatched and left the nest. If work takes place outside of the nesting season, no surveys are necessary.	Before Construction 1 time -if during nesting season (typically March to August) 0 times – if outside of nesting season	Qualified Biologist	Humboldt County Planning and Building Department In consultation with CDFW	Qualified Biologist will prepare Preconstruction Survey Report	
Biological 2: As an additional protection for western pond turtles, if the construction takes place during nesting season, the qualified biologist onsite will provide a short onsite training to construction employees that will be working in the area and may encounter turtles after the preconstruction survey. The training will be successful if after the training, the employees will be able to (1) identify by sight, a Western Pond Turtle, (2) know the appropriate activity buffer to provide the turtle, and (3) know when to resume construction work in the area where the turtle was found.	Before Construction 1 time -if during nesting season (typically March to August) 0 times – if outside of nesting season	Qualified Biologist	Humboldt County Planning and Building Department In consultation with CDFW	Qualified Biologist will prepare Preconstruction Survey Report	
Biological 3: The project will install permanent, all-season signs that describe wetland and pond setback areas as an Environmentally Sensitive Area (ESA). Signs will have a clear mandate for 'no entry.' Because the proposed six (6) acres of cultivation area will be fenced, the west side of the wetlands and pond will not be directly exposed to intrusion by humans. The east side of the pond and wetlands faces the proposed Multi-Use Building, a future construction site and hub of project activity; the eastern side of the wetland/pond is therefore more likely to see increased human and vehicle intrusion. On this eastern side, the project will install a minimum of six (6) signs that demarcate the riparian area setbacks. The signs will be installed prior to construction at which point they will be flagged to ensure that they are seen by construction crews. Signs will be placed along road borders and/or wetland setback boundaries in such a way that the potential for wetland damage is prevented. Alternatively, the project can choose to install split rail fencing (or an equivalent natural material barrier) in 6 to 10-foot lengths to deter human intrusion into the sensitive area. Sign or fence length locations will be identified by a qualified biologist prior to project construction. The qualified biologist will have the authority to require additional signs.	Before Construction	Qualified Biologist Project Proponent/ Project Proponent's Manger or Designee with direction from qualified biologist	Humboldt County Planning and Building Department	Qualified Biologist will prepare Preconstruction Survey Report	
Biological 4: To ensure that western pond turtles are not adversely impacted by vehicle traffic, the project will enforce a 10mph speed limit on the unnamed project access road. Before construction begins, the project will post at least two (2) 10mph speed limit signs: once to inform eastbound drivers entering the access road from Alderpoint Rd. and once to inform westbound drivers leaving the Multi-Use Building and returning to the Alderpoint Rd. intersection. The speed limit signs will be posted at a height of five (5) feet above the ground and clearly visible to oncoming traffic. The project speed limit will be enforced by the project proponents as dust reduction is critical for cannabis plant health. Humboldt County Planning and Building, Cannabis Services Division will ensure that the speed limits have been posted as described.	Before Construction & ongoing	Project Proponent/ Project Proponent's Manger or Designee	Humboldt County Planning and Building Department	Evidence of sign installation (photos) will be presented to the Humboldt County Planning and Building Department. County will observe vehicle speeds during site visits.	
Biological Resources - Migratory Birds					
Biological 5: To mitigate for potential impacts to **migratory birds**, 3 consecutive preconstruction surveys for these species should take place no more the one week prior the planting (and associated mowing and other disturbances) and construction planned for Phase I of the project. The survey area will include the six (6) acres where cultivation	Before Construction	Qualified Biologist	Humboldt County Planning and Building Department in consultation with CDFW	Qualified Biologist will prepare Preconstruction Survey Report	

Mitigation Monitoring and Reporting Program (MMRP) for Blocksburg Family Farms, LLC

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified
Biological Resources – Migratory Birds Continued					
Is proposed on Sherman Flat and the footprint of the propagation greenhouses, proposed rainwater catchment tank and pond locations and burned down barn (Multi-Use Building). The footprint of the disturbance areas and a 300-foot buffer will be surveyed. Should any nests be found, a 100-foot no-work buffer around the nest will be established and CDFW will be consulted for additional going forward, such as buffer modifications or the delaying of work until nestlings have fledged. Alternatively, if ground disturbance begins in August (or later in the season), these species will have completed breeding for the season and no surveys are necessary					
Biological Resources – Sensitive Botanical Species					
Biological 6: To ensure that the sensitive species found in the seasonal depressional wetland in the southeast portion of the Study Area, ***Lasthenia glaberrima*** Herbaceous Alliance, and ***Navarretia leucocephala ssp. bakeri***, are adequately protected, an additional 50-feet of riparian setback is to be added to the standard 100-foot setback (SWRCB, 2019) around the seasonal depressional wetland in the southeast portion of the Study Area (Figure 12). This buffer increase is recommended as a site specific mitigation to better protect the documented sensitive natural community and special status plant species from potential project impacts.	Before Construction	Qualified Biologist or a person under the direction of a qualified biologist.	Humboldt County Planning and Building Department	Qualified Biologist will provide a Compliance Report.	
Mitigation Measure- Biological 7: To ensure that impacts to *Danthonia californica* prairie are not significant or cumulatively significant, the project will implement a Sensitive Natural Community Mitigation and Monitoring Plan. This plan, found in Appendix O_ of the IS/MND outlines the onsite location and procedures and success criteria that will result in the creation of 0.70 acres (30,492 square feet) of high-quality California oatgrass prairie (30% or greater relative cover of *Danthonia californica*) to mitigate for impacts to high quality California oatgrass prairie at a 1:1 ratio.	Begin 1st fall after project approval. See Appendix O section 3.3 Work Plan for details.	Qualified Biologist	Humboldt County Planning and Building Department	Qualified Biologist will provide 4 Reports: 1 initial Installation Report followed by once annual (by Dec 31st) Monitoring Reports.	
Cultural Resources					
Cultural Resources 1: To ensure that the identified cultural resources are not adversely affected by the proposed project, the Archeology Report provides the following mitigation: *Avoidance of Cultural Resources* This Environmentally Sensitive Area (ESA) Action Plan provides guidance to ensure that Site 40-1 is not inadvertently affected by construction or cultivation activities. The ESA calls for no ground disturbing activities to occur within the limits of Site 40-1. No staging, equipment parking, or laydown of materials shall occur within the ESA. Within the ESA all vehicle traffic will be confined to within existing roadways. The ESA shall consist of colored stakes placed every 30 feet along the perimeter of the recorded site limits to ensure that no ground disturbing activities associated with the project are allowed into this area without appropriate archaeological and Native American monitors. The ESA boundaries will allow traffic and equipment to move through the ESAs and will provide personnel with clearly defined limits where ground disturbance can take place. Ground disturbing construction activities, however, will be allowed to take place within an ESA only in the presence of archaeological and Native American monitors. The ESA stakes will be erected as a first order of work and prior to any construction/cultivation activities under the direction of a qualified professional archaeologist.	Before Construction	A qualified professional archaeologist or a person under the direction of a qualified professional archaeologist.	Humboldt County Planning and Building Department	The Qualified Archeologist will prepare a Compliance Report.	

Mitigation Monitoring and Reporting Program (MMRP) for Blocksburg Family Farms, LLC

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified
Cultural Resources - Continued					
Cultural Resources 2: To ensure that accidentally discovered cultural resources or human remains are not adversely affected by the proposed project, all project employees that will be breaking ground (project construction, tilling, etc.) will be appraised of the accidental discovery protocols, described below. The project proponent will deliver the protocols as an oral presentation or in writing. All employees will acknowledge that they have heard/read the protocols by signing their names. The project proponent will deliver the signed document to the Humboldt County Planning and Building Department. If previously unidentified cultural resources are encountered during project implementation, avoid altering the materials and their stratigraphic context. A qualified professional archaeologist should be contacted to evaluate the situation. Project personnel should not collect cultural resources. Prehistoric resources include, but are not limited to, chert or obsidian flakes, projectile points, mortars, pestles, and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic resources include stone or abode foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies. *Inadvertent Discovery of Human Remains* If human remains are discovered during project construction, work will stop at the discovery location, within 20 meters (66 feet), and any nearby area reasonably suspected to overlie adjacent to human remains (Public Resources Code, Section 7050.5). The Humboldt County coroner will be contacted to determine if the cause of death must be investigated. If the coroner determines that the remains are of Native American origin, it is necessary to comply with state laws relating to the disposition of Native American burials, which fall within the jurisdiction of the NAHC (Public Resources Code, Section 5097). The coroner will contact the NAHC. The descendants or most likely descendants of the deceased will be contacted, and work will not resume until they have made a recommendation to the landowner or the person responsible for the excavation work for means of treatment and disposition, with appropriate dignity, of the human remains and any associated grave goods, as provided in Public Resources Code, Section 5097.98.	Before Construction	Project Proponent	Humboldt County Planning and Building Department	The project proponent/ project proponent's designee will deliver the signed inadvertent discovery protocols document to the Humboldt County Planning and Building Department	
Transportation					
Transportation 1: Beginning in the second season of cultivation (Phase II), when the project intends to hire a number above eight (8) employees, the project will provide one or more passenger vans such that the daily number of employee -generated round trips is less than eight (8). The project proponent will provide to, the Humboldt County Planning and Building Department (HCPBD), Cannabis Services Division, by Dec 31st of the year, with evidence of van use (lease/purchase agreement, contract, or equivalent) beginning the second season of cultivation after permitting (Phase II) and annually until directed otherwise by the HCPBD.	At such time as the project employs eight (8) or more site based employees	Project proponent	Humboldt County Planning and Building Department	Evidence of van use (lease/ purchase agreement or equivalent). Annual verification until directed otherwise	

Initial Study/Mitigated Negative Declaration and
Environmental Checklist for
Cannabis Cultivation and to Establish Ancillary Processing Facilities

PLN-12265-CUP

Blocksburg Family Farms, LLC.
Blocksburg, Humboldt County, California

(ATTACHED SEPARATELY)

Initial Study/Mitigated Negative Declaration
Appendices

PLN-12265-CUP

Blocksburg Family Farms, LLC.

(ATTACHED SEPARATELY)

ATTACHMENT 5

Applicant's Evidence in Support of the Required Findings

Attachment 5 includes a listing of all written evidence which has been submitted by the applicant in support of making the required findings. The following materials are on file with the Planning and Building Department:

1. The name, contact address, and phone number(s) of the applicant. (**Application form on file**)

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

3. Site plan showing the entire parcel, including easements, streams, springs, ponds and other surface water features, and the location and area for cultivation on the parcel with dimensions of the area for cultivation and setbacks from property lines. The site plan shall also include all areas of ground disturbance or surface water disturbance associated with cultivation activities, including access roads, water diversions, culverts, ponds, dams, graded flats, and other related features. If the area for cultivation is within one-quarter mile (1,320 feet) of a school, school bus stop, church or other place of religious worship, public park, or tribal cultural resource, the site plan shall include dimensions showing that the distance from the location of such features to the nearest point of the cultivation area is at least 600 feet. (Plot Plans prepared by Green Road Consulting – **Attached** with project maps)

4. A cultivation and operations plan that meets or exceeds minimum legal standards for water storage, conservation and use; drainage, runoff and erosion control; watershed and habitat protection; and proper storage of fertilizers, pesticides, and other regulated products to be used on the parcel and a description of cultivation activities (outdoor, indoor, mixed light); the approximate date(s) cannabis cultivation activities have been conducted on the parcel prior to the effective date of this ordinance, if applicable; and a schedule of activities during each month of the growing and harvesting season. (Cultivation and Operations Plan dated 11/5/2021 – **Attached**)

5. Copy of the statement of water diversion, or other permit, license, or registration filed with the State Water Resources Control Board (SWRCB), Division of Water Rights, if applicable. (Notice of Applicability for Enrollment under Waiver of Waste Discharge Requirements) – (**On file)**

6. Description of water source, storage, irrigation plan, and projected water usage. (Included in Cultivation Operations Plan (item 4. above) (**Attached**) and Site Management Plan prepared for SWRCB Cannabis General Order (**SMP pending and is a condition of approval**)

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

8. If any onsite or offsite component of the cultivation facility, including access roads, water supply, grading or terracing, impacts the bed or bank of any stream or other watercourse, a copy of the Streambed Alteration Permit obtained from the California Department of Fish and Wildlife (CDFW). (**On file**)

9. If the source of water is a well, a copy of the County well permit, if available. (**Well completion reports on file**)

10. Sensitive Natural Community Mitigation and Monitoring Plan: Blocksburg Family Farms, December 2021 (**Attached to the IS/MND as Appendix "O"**).

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

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

13. For indoor cultivation facilities, identify the source of electrical power and how it will meet with the energy requirements in Section 55.4.8.2.3, and plan for compliance with applicable building codes. (**Cultivation and Operations Plan, 12/5/2021 - Attached**)

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

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

16. Division of Environmental Health Attachment for Commercial Medical Marijuana Clearances/ Permits (DEH Form). (**On file**)

17. Road Evaluation Report dated 03/9/19 and received 12/23/20. (**Attached; appended to the IS/MND**)

18. Cultural Resources Investigations. (**On file and confidential**)

Cultivation and Operations Plan*

Blocksburg Family Farms, LLC., PLN-12265-CUP

Prepared for:
Dakota Ringo and Nancy Nunez

Prepared by:
Natural Resources Management, Inc.
1434 Third Street
Eureka, CA 95501
(707) 442-1735

November 5, 2021
Revised March 9, 2022

TABLE OF CONTENTS

Figures

Tables

1. Summary

Project Title: Blocksburg Family Farms, LLC.
Assessor's Parcel Numbers APN: 217-471-001
Humboldt County Commercial Medical Marijuana Land Use Ordinance (CMMLUO, No. 2559)
Conditional Use Permit (CUP) Apps# 12265

Project Sponsor:
Blocksburg Family Farms, LLC
Dakota Ringo and Nancy Nunez
nancynunez90@yahoo.com

Project Contact:
Breeanna Kalson, Natural Resources Management Corporation, 707-442-1735, bkalson@nrmcorp.com

Location:
Humboldt County
T 2S, R 5E, Sections 4 & 5, HB&M
USGS Blocksburg Quadrangle

Legal Parcel =APN 217-471-001, GIS acres: 1230.9
See Notice of Merger(s) and Certificate of Subdivision Compliance
Case No. DS 18-031 & Apps PLN-14366-DS

Zoning:
AE-B-5(160);TPZ
General Plan Designation:
AG – Agricultural Grazing

Slope Stability Rating:
APN 217-471-001: (3) High instability

Primary (not comprehensive) Permits and Approvals:

- State Water Resources and Control Board (SWRCB)
    - Cannabis General Order (WQ-2019-0001-DWQ)
    - 401 Permit
    - Construction General Permit
- Humboldt County
    - Conditional Use Permit - CMMLUO no. 2559
    - Building & Septic Permits
    - Grading permits for proposed water tank and pond as required
- California Department of Fish and Wildlife (CDFW)
    - LSAA 1600 (Draft- CDFW holding issuance of Final for CEQA)
- California Department Cannabis Control (DCC)
    - Cultivation and Licensing (Code Regs. tit.3, § 8000 et seq.).

2 Project Description

2.1 Figures

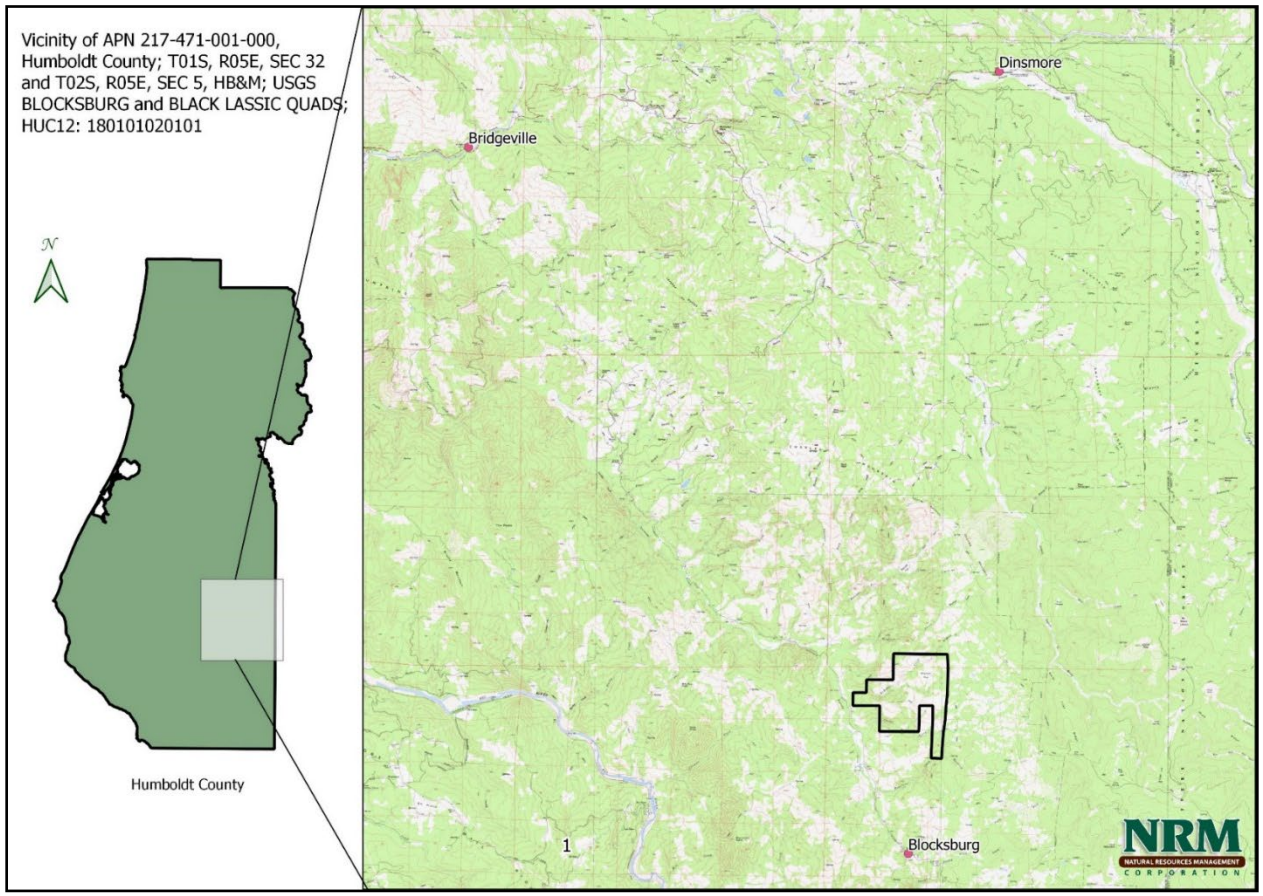


Figure 1. Vicinity Map; project APN 217-471-001

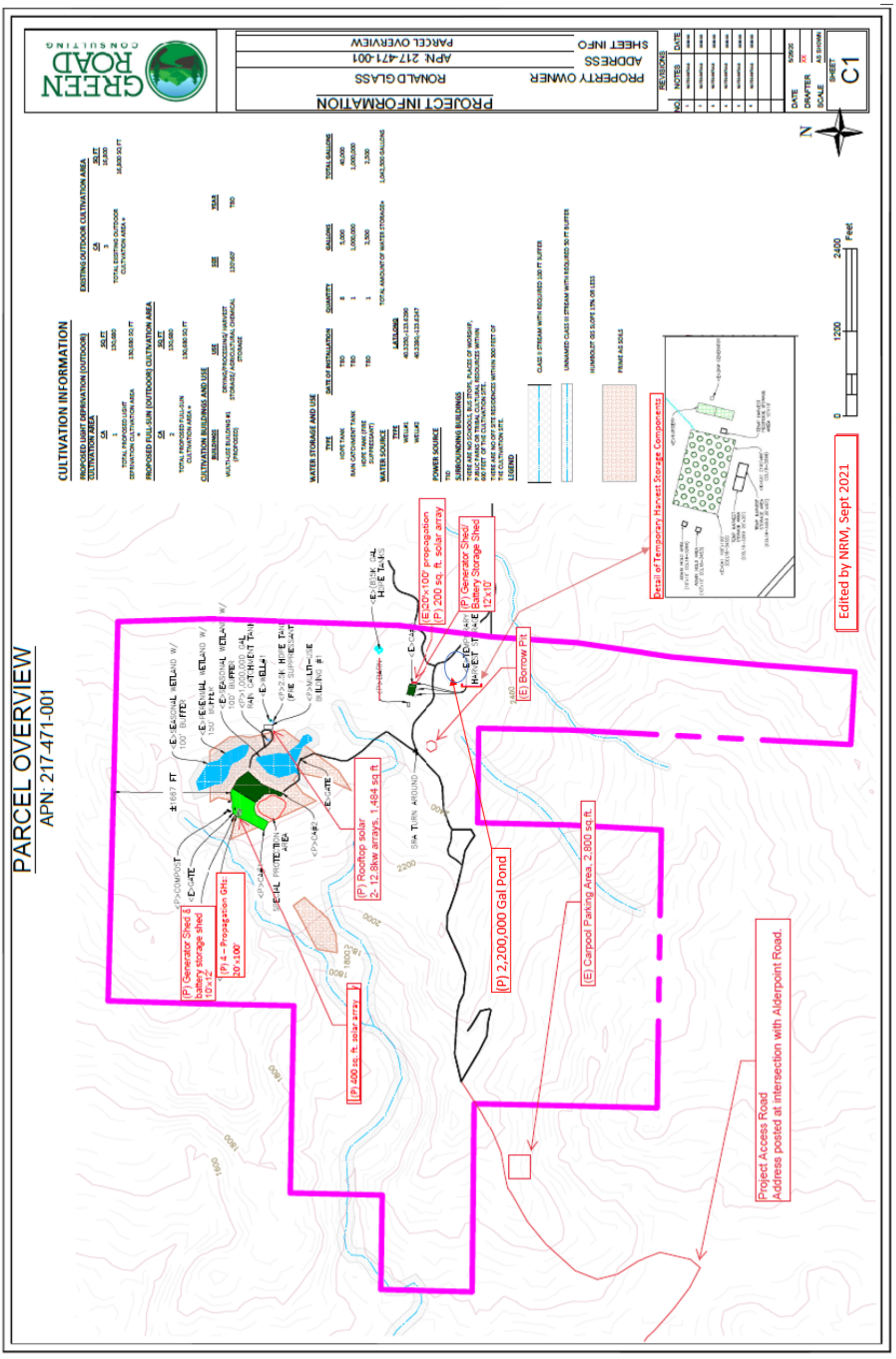


Figure 2. Site Plan for Blocksburg Family Farms, LLC.; Green Road Consulting, May 2020; Appendix A. Edited by NRM, March 2021

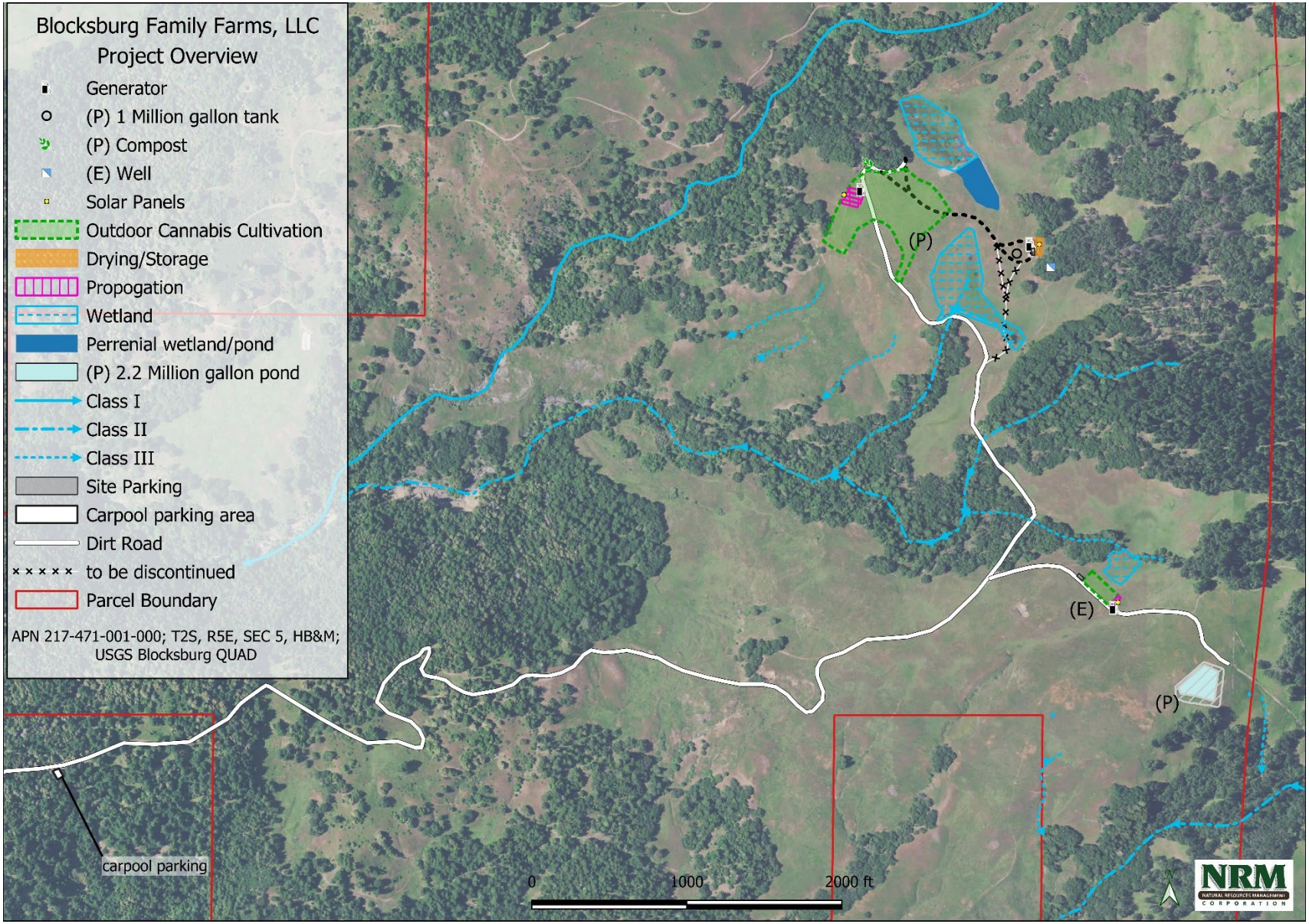


Figure 3. Project Overview; NRM, 2021

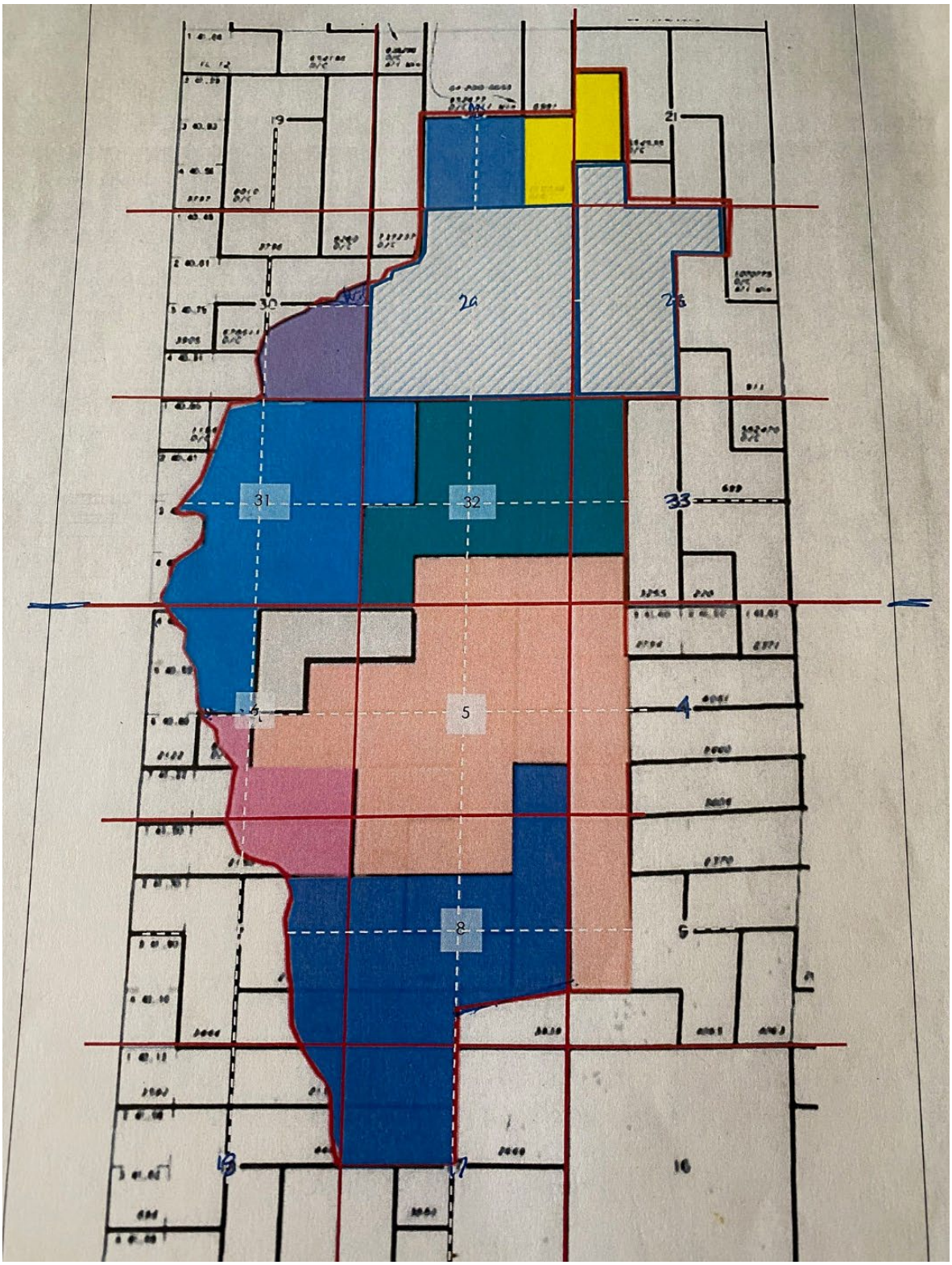


Figure 4. Subdivision/Reconfiguration Results of 'Glass Ranch,' Case No. DS 18-031 & Apps PLN-14366-DS; Project parcel is mapped Orange: APN 217-471-001.

2.2 Proposed Project Overview

The project proposes a total of 278,160 sq.ft. (6.39 acres) of outdoor cannabis cultivation and ancillary propagation and processing facilities. All cannabis development will take place on APN 217-471-001, herein known as the 'project parcel.' The project parcel is located approximately three (3) miles northwest of Blocksburg on a portion of a cattle ranch owned by Mr. Ronald Glass that is known as 'Sherman Flat.' The cannabis project is accessed from Alderpoint Road, a paved county road, and a gravel and dirt unnamed private access road. The project proponents have a signed lease agreement on file with Humboldt County.

This cannabis cultivation will consist of an existing full term outdoor garden of 16,800 sq. ft. (interim permit under Humboldt County, Ordinance 1.0, Apps# 10615 and incorporated into application #12265) and proposed expansion of an additional six (6) acres of outdoor cultivation. The proposed acreage will be divided into three acres of full term outdoor and three acres of light deprivation. Ancillary activities include propagation and processing (drying, and trimming); drying will occur primarily in a proposed steel commercial building (herein 'Multi-Use Building'), but may expand to the propagation greenhouses (one existing and four proposed) if additional space is required.

The project will be developed in stages, herein 'Phases,' in which the implementation of project components is based on a schedule of potential construction times and anticipated costs. Each Phase represents one year, or in terms of cultivation, one growing cycle (March through November).The anticipated timeline, though subject to change based on permit approvals, begins with Phase I (Spring/Summer) in 2022 and ends with Phase IV in 2025:

Phase I – Spring/Summer 2022
Phase II – Spring/Summer 2023
Phase III – Spring/Summer 2024
Phase IV – Summer 2025

Power will transition from gas generators to solar power and water storage will expand from 5,000 gallons of hard sided tanks to over 3.2 million gallons of rainwater collection and storage. See Phases in Section 2.3 below.

Employees will number between six (6) and twenty-five (25) depending on the Phase and the planting schedule. Employees will not stay onsite, but will commute daily to the site in personal vehicles or a project provided van-pool.

The total area (existing and proposed) that will be used for the cannabis project, including cultivation, ancillary buildings, and parking areas will be approximately 386,912 square feet (8.9 acres). See Table 1 below. On a parcel of 1,230 acres (HumGIS), the total cannabis footprint will constitute 0.7% of the total parcel acreage. The existing access road (and spur) are not included in Table 1 as they are used and will continue to be used by both the project and the cattle ranching operator/property owner.

All cultivation and ancillary buildings are located on agricultural lands with slopes of approximately 0-15%. The project is expected to perform minimal grading to anchor the 1 million gallon rainwater catchment tank and level the building site for the Multi-Use Building. Grading for the pond will be 6,385 cubic yards of soil cut and 6382 cubic yards of fill. No trees will be removed.

Table 1. Blocksburg Family Farms LLC., Estimated Project Footprint

	Project Feature	**Area (sq. ft.)**
Cultivation	Proposed Full Sun Outdoor	130,680
	Proposed Light Deprivation	130,680
	Existing Full Sun Outdoor	16,800
	Total Cultivation Area =	**278,160 square feet (6.39 acres)**
Ancillary Development	Existing Shipping Container Storage (40’ x 8’)	320
	Existing Generator Shed (4’ x 3’)	12
	Existing Propagation Greenhouse (1 – 20’x 100’)	2,000
	Existing irrigation water storage tanks (2 – 2,500 gal)	100
	Proposed Emergency Fire water storage tanks (2 – 2,500 gal)	100
	Proposed Propagation Greenhouses (4 – 20’ x 100’)	8,000
	Proposed Rainwater Catchment Tank (1 million gal)	21,904
	Proposed Rainwater Catchment Pond (2.2 million gal)	61,756
	Proposed Generator Shed(s)	100
	Proposed Multi-Use Building (120’ x 60’)	7,200
	Proposed Alternative Energy System (ground mounted solar, battery storage, and earth tube)	1,240
	Proposed Shipping Container storage area (40’ x 8’)	320
	Proposed Compost Area	900
	Parking/carpool Area	4,800
Total Cannabis Footprint = 386,912 square feet (8.9 acres)		

2.3 Projected Project Timeline

Phase I

- Improve and rock access roads
- Bring in B&Bs for employee use
- Install (or complete install) 2,200,000 gallon rainwater catchment pond
- Install 2, 2,500 gallons tanks
- Build and plant new propagation greenhouses
- Till, amend, and plant 2 acres new outdoor and 16,800 sq. ft. existing cultivation
- Set up irrigation system for new cultivation
- Establish Compost Area
- Complete septic design and install system
- Build Multi-Use Building (drying/processing/storage)
- Install propane tank

Phase II

- Complete irrigation system
- Use 2,200,000 gallon rainwater catchment pond
- Build and plant remaining propagation greenhouses
- Plant permitted acreage (up to 6.39 acres)
- Install light deprivation infrastructure

Phase III

- Install 1,000,000 gallon rainwater catchment tank
- Install/Activate Alternative Energy System*
- Review/Refine Alternative Energy System performance

Phase IV

- Implement all long term operational procedures

Note: Each Phase represents one year, or in terms of cultivation, one growing cycle (March through November).
***** If the project has not fully installed and/or tested the solar system by 2025, the project will, nonetheless, remove all gasoline/diesel generator support for the project and only those components that can be supported by onsite solar power and alternative energy systems will continue.

2.4 Site Selection and Standards

Per the Humboldt County Commercial Medical Marijuana Land Use Ordinance (CMMLUO) No. 2559, new cultivation must be located on Prime Agricultural Soils with slopes less than 15%; and the total cultivation area must not occupy more than 20% of the total Prime Agriculture Soils on the property. The project employed Lindberg Geologic Consulting to conduct an onsite soil review and sampling of the project area. Accordingly, the findings, described in detail in the 2016 Engineering-Geologic Review: Prime Soil Classification letter (Appendix E) describe the conclusions by the geologist that the site soils are Grade 1 (excellent) soils that should qualify as prime agricultural soils for the purposes of the Humboldt County Cannabis Cultivation Ordinance. The letter describes the apparent extent of the prime soils as an area, across the Sherman Flat prairie pastureland area, of approximately 40 acres (1,742,400 sq. ft). Therefore 20% of the Prime Ag soils, and the maximum total available area for cannabis cultivation, would be eight (8) acres (348,480 sq. ft). The project will cultivate a maximum of 278,160 sq. ft. (existing and proposed cultivation area), or around 16% of the available Prime Ag Soils; the project complies with the Humboldt County CMMLUO (No. 2559).

The slope of Sherman Flat on which the development is proposed, has been described as "nearly level to gently sloping" and as "relatively level" by the geological and archeological consultants that visited the property (Lindberg, 2017 (Appendix E); Alta, 2017) and thereby meets the siting requirements of the CMMLUO.

2.5 Infrastructure and Cultivation

2.5.1 Existing

The existing development on the project parcel is limited to one full term garden (16,800 sq. ft. canopy with 850 plants in beds), two (2) 2,500 gallon water tanks, one 20-foot by 80-foot propagation greenhouse, one (1) 8-foot by 20-foot steel shipping container, one (1) well with solar collection panels and 2,500 gallon tank. The existing shipping container is used for product storage and for overwinter storage of cultivation materials. The existing greenhouse doubles as a drying space.

The propagation greenhouse (2,000sq. ft.) was added to the cultivation site in 2019. The propagation greenhouse has steel and wood framing with polyethylene sheeting (flexible plastic). This greenhouse employs climate control devices in the form of two (2) 28-inch Snap-Fans and a propane heater. At this time, all supplemental lighting and fans are run with a Honda 3000 gasoline generator. The generator is kept in a nearby generator shed; two (2), five (5) gallon gas cans are stored in a plastic tote in the generator shed. During Phase III of the project, this existing propagation greenhouse will have a solar electric collections system with battery storage. The solar will provide all energy needs for the greenhouse and the generator will be discontinued and moved offsite.

The dirt roads and tracks on the Project Parcel are a result of decades of active cattle ranching, with road development increasing as the ranching has transitioned from horseback as the primary means of cattle management to the use of trucks and ATVs. The existing garden is accessed via established ranch roads. The access to the existing garden is approximately 0.2 miles (1056-feet) off of the main road and is herein known as the 'spur' road.

In 2019, the existing 16,800 sq. ft. garden and surrounding area was surveyed by a botanist. A seasonal wetland was located just outside (north) of the existing cultivation (Appendix B). A wetland delineation

revealed that a portion of the garden site was within the mandated riparian setback. To comply with Humboldt County Streamside Management Area ordinance and the North Coast Regional Water Resources Control Board riparian setback requirements (site was originally enrolled under R1-2015-0023), the cultivation area was shifted slightly southwest and out of the wetland setback. This area was also surveyed by an archeologist (DeGeorgey, 2019). This shift out of the wetland setback occurred in 2019, prior to planting. All pots, soil, and infrastructure has been removed from the buffer and the garden has been reestablished with plants in beds, watered with drip irrigation, and surrounded by a perimeter of 6-ft foot tall rodent-proof fencing. Water from the well is pumped into the existing water storage tanks (two (2) 2,500 gallon); gravity is used to fill the garden's irrigation system.

There are several temporary drying and harvest storage areas proposed for the existing cultivation site (insert in Figure 2) as this site is currently permitted by Humboldt county (interim permit) and is moving forward with State permitting. When the expansion is approved and the proposed Multi-Use Building constructed, the temporary drying and harvest storage areas will be removed.

Proposed Changes to Existing Garden

There will not be any significant physical changes to this garden. The garden will continue as a full-term outdoor garden with one harvest per year. There will be a difference in the management of the product produced at this location. The harvested product will be brought in a truck to the Multi-Use Building where it will be dried, processed, and held; During Phase III, the alternative power system will replace the Honda 3000iS generator.

2.5.2 Proposed Infrastructure

The project will add four (4) fully enclosed ancillary propagation greenhouses that measure 100-feet by 20-feet (8,000 sq. ft) to support the addition of six cultivation acres to the parcel. These will be built in stages with two to four (2-4) propagation greenhouses constructed during Phase I and the remainder (0-2) built during Phase II. These four (4) greenhouses will be framed with steel and wood; the siding will be polyethylene (flexible plastic). The sides of the greenhouses will be flush with the ground and the floors will be surfaced with permeable landscape matting ('weed matting') and not hardened. Plants will be set on the ground. Because they are closed to the environment, the greenhouses will have climate control systems in the form of exhaust fans that will run intermittently throughout the growing season to manage airflow and temperature in the greenhouse. The project proposes to use two (2) 28-inch exhaust fans (Snap-Fans) per greenhouse (one mounted on each end of the greenhouse). These 28" fans contribute approximately 45 decibels of sound at 10-feet away from the fan and diminishes to 39 decibels at 20-feet away (Appendix C). Propane sourced heat will also be used to manage the climate in the propagation greenhouses. Each propagation greenhouse will have one (1) propane heater that is fueled with a 25-gallon portable propane tank. Propagation greenhouses will have ten (10) 25-watt lights in them to maintain plant growth stages. The greenhouses will be managed to prohibit light leakage; the project will utilize blackout curtains that are manually pulled and removed as necessary to prevent light from escaping. In this way, it will conform with the lighting requirements described in the Humboldt County CCLMUO (Ordinance 2559). The cultivation gardens will not be lit at night, as any lighting could interfere with the success of the outdoor plants. The propagation greenhouses may also be used to provide extra space for plant drying; the existing infrastructure (fans and heat) that supports propagation will be employed.

The Multi-Use Building will have storage and drying/processing areas for all cultivation, existing and proposed. It will be located on the footprint of the burned down barn and occupy 7,200 sq. ft. The Multi-Use Building will be steel (framing, roofing, siding) with a concrete slab (floor); it will have two (2) main rollup doors and several 'person doors.' See Multi-Use Building plans (draft) in Appendix D.

This building will provide propane sourced hot water and heating. The project will have a 300 to 500 gallon propane tank installed and filled by a permitted propane company (Sequoia gas or equivalent); it will be located adjacent to the Multi-Use Building on a concrete pad. All electrical will be installed by a certified electrician. Electricity needs (See section 2.7, 'Power') will be met by the proposed alternative energy source that is currently being developed by Norm Ehlrich, a mechanical engineer at Six Rivers Solar in Eureka, CA. All exterior lighting, to be placed at the entrance and exits of Multi Use Building doorways only, will minimize B.U.G (backlight, uplight, glare) and adhere to the International Dark Sky Association recommendations for Zones 0 and 1.

Water storage will be provided by a 2,200,000 gallon rainwater catchment pond and a 1,000,000 gallon rainwater catchment tank. The pond construction will result in a disturbed area of 61,756 sq.ft. with the pond surface area to be 36,500 sq.ft. The pond has been engineered and includes an overflow design and an erosion control plan. The pond will include one to two (1-2) wildlife escape ramps. The steel tank has a diameter of 167 feet and a footprint of approximately 21,904 sq. ft. See Appendix H for pond and tank details. To secure a tank of this size, the tank will be bolted to an engineered concrete slab. The large diameter and sloped roof design will allow catchment of rainwater and provide a secure and safe (for animals and from leaks/collapse) water storage option for the project.

Cultivation – Proposed Full Term Outdoor (3 acres)

Phase I of the project includes planting one to two (1-2) acres of full term outdoor plants. All plants will be planted directly in the ground in early Summer and harvested in late Fall. Drip irrigation systems will be installed to serve the additional acres of full term outdoor. Phase II ongoing will see up to three (3) acres of full term outdoor planted and drip irrigation completed.

Cultivation - Proposed Light Deprivation (3 acres)

There will not be any light deprivation cultivation during Phase I. During Phase II and ongoing, up to three (3) acres of light deprivation outdoor will be tilled and fertilized with plants in the ground by late March or early April. The light deprivation structures are composed of pvc hoops that will support light deprivation tarps. The blackout tarps will be 'panda' tarps that are white on the outside and black on the inside; these are pulled by hand. The first harvest from the light deprivation cultivation is anticipated in early July, with new plants in the ground by late July (see Table 2 below); the second harvest is anticipated in late October. All tarps will be removed and stored in the Multi-Use Building or in an additional storage container for the winter.

The entirety of the proposed cultivation area (261,360 sq. ft or six (6) acres) will be fenced with 6-foot tall rodent proof fencing.

2.6 Roads and Access

From the north (Eureka area), the route to the project parcels is primarily on Highway 36 (24 miles) and Alderpoint Road (16 miles). Traveling south on Alderpoint road, approximately three (3) miles north of Blocksburg, the route leaves public roads and turns northeast on an un-named private road for 3.2 miles. From the south (Garberville), the project parcels are accessed from Highway 101 via Alderpoint Road (31 miles). The 3.2 miles of un-named private road is composed of preexisting access roads. The project will not develop new access roads for cannabis operations. Roads were in place for cattle ranching and the property owner or ranching lessee will continue to have access to the existing roads for cattle ranching use. The Road Evaluation, performed in February 2020, found that the roads to be used by the project are in good condition with no significant sediment sources observed. The evaluation concluded that, with annual maintenance (maintenance grading, ditch upkeep, and spot rocking), the un-named private roads meet the Humboldt County Category 4 Standards (Appendix F). The project will widen gated entrances surface 100% of driving and parking surfaces with rock in order to facilitate wet season travel (early spring) and reduce fugitive dust that would be present in the late summer and early fall. The rock will be native rock sourced from a local supplier. The project will observe a 10mph speed limit; this speed limit will be posted.

The project will include three parking areas for vehicles. The existing carpool parking area located off of Alderpoint road approximately one (1) mile east on the project access road will be the primary parking area for employees, visitors, and staging area for equipment. This existing parking area is approximately 2,800 sq. ft. in size and can accommodate up to 15 standard vehicles in standard parking spaces (9ft by 20ft). This parking areas is expected to accommodate employees during Phase I as they will carpool to the project area. This parking area will be heavily graveled in order to accommodate wet weather use; gravel will eliminate splash erosion and sediment mobilization. A preexisting parking area on the northwest side of the existing cultivation area and immediately adjacent to the exiting road will also be defined and graveled. This area will accommodate up to five (5) standard parking spaces (approximately 900 sq. ft.). The project will also gravel and delineate a minimum of five (5) standard parking spaces on the west face of the proposed Multi-Use Building (approximately 900 sq. ft.). One of these spaces near the entrance to the building will be concrete and ADA compliant. The project will incorporate, at the discretion of the engineer, designated van parking adjacent to the Multi-Use Building. This space will add an additional 200 sq. ft. of gravel parking area.

2.7 Power

The project will use electric energy in the following ways: LED security lighting on the exterior of the Multi-Use Building, water pumps, supplemental lighting in propagation greenhouses, and space lighting, fans and dehumidifiers inside the Multi-Use Building.

The project intends to meet or exceed established Humboldt County (Ordinances 2559 & 2599) and upcoming CalCannabis limitations on greenhouse gas emissions (§8203(g)(1-4) and §8305(a) and (b)) and generators (§ 8306) by installing a solar electric system, integrated passive heating and cooling design, and support from a net zero emissions generator. To reach the desired net zero emissions, the system will be designed in stages. Phase III of the project will be a testing and monitoring phase for the alternative energy system, at the end of which the solar electric and passive heating/cooling systems will be evaluated and improved by the engineer to meet the project's demonstrated needs. Because it is a testing phase, one or more gas generators may also be used during Phase III. If used, generators will be used at maximum

efficiency to charge the electrical system (batteries); direct charging of the system will avoid losses from conversion (where DC is converted to AC). During Phase III, the project will be calibrated to produce the most efficient amount of solar and will have predictable energy demands which will allow for the successful transition from gas generator to a power generating gasifier (Energy Compliance Workbook, Appendix N).

2.7.1 Temporary Power - Generators

During the initial phases of the project, Phase I and Phase II, the project will use gasoline powered generators ((1) Honda EU3000iS and (up to 2) Honda EU7000iS) as a primary power source for both propagation fans and lighting as well as drying fans and dehumidifiers. In the event that the alternative energy system is not capable of supporting propagation and/or drying during Phase III, Phase III may also employ generators for power (Greenhouse Gas Emissions analysis, Section 4.8, assumes worst case scenario of generators use for all Phase III operations).

During full build out of the project (Phase II/III), where all 6 acres and 16,800 sq.ft are planted, generators will run propagation greenhouses for approximately 8-16 weeks. The maximum potential gasoline consumption during this time is estimated to be 196 gallons of gasoline per season. Generator support for product drying during a full build out season is estimated to take a maximum of 6.5 weeks and burn 1,680 gallons of gasoline.

During periods of elevated gasoline use, the project will increase the supply of gasoline to (8) five-gallon containers; these will be refilled by employees daily or as needed. See section 4.8 for details.

2.7.1.1 Generator Specifications

Honda EU7000iS

According to the specifications of the Honda EU7000iS, five (5) gallons of gasoline will provide 6.5 hrs. of runtime when producing 7000W (AC). If the demand is lowered to a quarter of the rated capacity, the Honda EU7000iS can run for 18 hrs.

Like fuel consumption, the noise that the generators produce fluctuates as the engines run at various loads. At 100% rated capacity (7000W AC), the Honda 7000 generator produces 58 decibels (dBA) at 23-feet away from the generator. At 1/4 load the Honda 7000 generator produces 52 dBA at 23-feet away.

Honda EU3000iS

According to the specifications of the Honda EU3000iS, 3.4 gallons of gasoline will provide 7.1 hrs. of runtime when producing 3000W (AC). If the demand is lowered to a quarter of the rated capacity, the Honda EU3000 can run for 20 hrs.

Like fuel consumption, the noise that the generators produce fluctuates as the engines run at various loads. At 100% rated capacity (3000W), the Honda EI3000iS generator produces 57 decibels (dBA) at 23-feet away from the generator. At 1/4 load, the Honda 3000 generator produces 50 dBA at 23-feet away.

2.7.2 Long Term Power - Alternative Energy System

The project is currently working with Six Rivers Solar (Eureka) to develop an integrated alternative energy system that will include integrated climate control systems for the Multi-Use Building and solar electric

energy. The system will be fully installed and active for Phase III with the goal of achieving 100% renewable energy by the end of the season. Phase III, as the first season of use, will also be a test year for the alternative energy system; the system engineer will be monitoring power loads and production throughout the season and evaluating the system upon completion (drying) of the harvest. With the data collected during the Phase III season (March through November), the engineer will fine tune the system design and make changes where necessary (See 2.7.2.1 below). Phase IV will achieve 100% energy from alternative sources.

The interior climate control system for the Multi-Use Building includes a 100-foot long earth tube that will be buried 12 feet underground and have a diameter of four (4) feet and will include a passive (unpowered) exhaust fan. Climate control will also include a solar water heating component (roof mounted) that will provide hot water for the restrooms and an in-slab hydronic system for interior space heating. The roof of the Multi-Use Building will carry solar electric panels that will provide electricity for the building's interior and exterior lights, security system, and equipment used inside. The propagation greenhouse located near the 16,800 sq. ft. existing garden and the proposed propagation greenhouses on Sherman Flat will each have a solar array with backup batteries that will provide the necessary support for fans and lights. All solar electric arrays will store power in battery banks; the batteries will be available as a source of power during evenings/nights and during cloudy days.

Currently onsite, there is an existing small solar collection system of seven (7) panels that provides the necessary electricity to power the well pump during most weather conditions (project is inactive and no people are on site during the winter months (Nov-Feb)); the cultivators have determined that a battery bank is unnecessary and do not plan to add batteries to the well pump system.

The project intends to build out and use the solar system in Phase III. If the project has not fully installed and/or tested the solar system by the year 2025, the project will, nonetheless, remove all gasoline/diesel generator support for the project and only those components that can be supported by onsite solar power and alternative energy systems will continue.

2.7.2.1 Long Term Power - Alternative Energy System: Array Size Estimates

Multi-Use Building

At this time, estimates for propagation greenhouse solar array size are available based on known and extrapolated fuel consumption. The electrical engineer used estimates from project proponents for gasoline consumption to anticipate potential energy demand for the Multi-Use Building. The engineer recommends, in addition to the passive heating and cooling elements in the building design, that the project install (2)12.8kw Six Rivers Solar Apollo 13 solar systems comprised of (64) 400W PV panels, 60kw lithium ion battery storage, and a 4kw generator for back up battery charging (Appendix N). These systems, each 12.8kw array occupying approximately 742 sq.ft. of area (1484 sq. ft. total), will be installed on the roof of the Multi-Use Building. The Multi-use Building will have a footprint of 7,200 sq. ft. with a similar estimated roof capacity. If evaluation of the system at the termination of Phase III growing system results in an additional two (2) 12.8kw systems, the total area occupied by solar panels will be 2,968 sq.ft. The roof of the Multi-Use Building will have the capacity to accommodate all planned (2) and potential (2) arrays.

Propagation Greenhouses

The project currently uses around two (2) gallons of gasoline every four (4) days to run the existing propagation greenhouse. For three (3) propagation greenhouses at full operation (Phase I), it is anticipated that seven (7) gallons of gas will be burned every four (4) days (approximately 52.5 gallons/month). According to the engineer (see Generator Worksheet, Appendix N), a gallon of gas in an average gas burning generator will produce approximately 8.7kwh. Therefore, 52.5 gallons of gasoline is the equivalent of a 456.75kwh/month electrical demand. To provide a system that would produce around 500kwh/month, a 4kw solar system is required. These systems are described as occupying between 240 to 300 sq. ft. of space. Requiring only one third of the 500kwh/month estimated for propagation, the existing propagation greenhouse will have a ground mounted solar array of approximately 200 sq. ft. or smaller installed adjacent to the greenhouse. Battery storage will be in a weatherproof shed/cabinet (max 120 sq. ft.) that will be located adjacent to the greenhouse. Requiring two thirds of the 500kwh/month estimated for propagation, two (2) proposed propagation greenhouses (2) will have a ground mounted solar array of approximately 200 sq. ft. installed adjacent to the greenhouses. Four (4) proposed propagation greenhouses will have a total of 400 sq. ft. of solar array installed. Battery storage will be in weatherproof shed/cabinet (max 120 sq. ft.) that will be located adjacent to the greenhouse (project may repurpose generator shed).

The footprint of the alternative energy system will consist of the roof of the Multi-Use Building, an underground earthtube that extends downslope (west) of the Multi-Use Building for 100-feet (100ft x 4ft), and up to 840 sq. ft. of solar array and battery storage adjacent to propagation greenhouses (See Table 1.). The approximate location of the solar panels and battery sheds are depicted on the Plot Plan and maps in this document (Figures 2 & 3). All panels will be located within the immediate vicinity of propagation greenhouses for maximum power conservation. All proposed panels for proposed propagation greenhouses are located in areas that are outside of riparian setbacks and in areas that have had cultural and biological surveys (Appendix B). The proposed ground based solar array will be located in a location within the currently disturbed area of the cultivation site. While maintaining the aforementioned parameters for location, the solar engineer may modify to some extent the exact footprint and orientation of the panels during installation based on site conditions for maximum solar exposure.

2.7.2.1.1 Back Up Power Supply

Phase III

Because Phase III will be a test year for the Alternative Energy System, there may be a need for a flexible back up power supply. A generator is recommended as a backup supply because a generator will better meet the fluctuations in demand that may occur as a result of the untested system. During Phase III, the maximum amount of gasoline that will be required by generators used to charge system batteries is assumed to be equal or less than the maximum amount required by one 7000iS generator running 24 hours a day for six (6) weeks. See Greenhouse Gas Emissions (section 4.8) for details on estimated gallons of fuel burned. At the end of the Phase III season, the project will remove all Honda EU3000iS and/or Honda EU7000iS generators offsite.

Phase IV

After the system evaluation and associated adjustments have been made at the conclusion of the Phase III growing season, the project will begin Phase IV operations using 100% alternative energy sources. The backup power system that will be in place to recharge project batteries for times of extended cloud cover will be a part of the alternative energy system. The backup power for the system will be a small 4kw

generator that is powered by a gasifier, a wood biomass system. As recommended by the electrical engineer, the project will use a wood gasifier to provide backup electricity production to charge the battery bank. Depending on the time of year, the charged batteries will be used in the Multi-Use Building or moved to the propagation greenhouses. A gasifier is a generator that is fueled with wood (Gasifier, Appendix N). The wood fuel (chips, pellets, or other small pieces) is burned in a partial combustion process using a limited oxygen environment and extremely high temperatures to create wood gas. The resultant wood gas, called 'syngas,' is then used to power a generator which will recharge project batteries. The syngas is transferred to the generator in a closed system with no direct environmental emissions of syngas into the environment. In addition to the production of syngas, the gasifier produces a byproduct called biochar. Biochar is a stable charcoal that is high in carbon that will be composted onsite.

Emissions from the burning of syngas in the generator are generally found to be comparable to that of a diesel fuel generator (Palmer, K. et. al., 2018), but can vary depending on the fuel burned, the type of fuel, the moisture content of the fuel, and the gasifier itself. However, these potential project emissions, according to a 2018 Environmental Protection Agency (EPA) Policy Statement, are carbon neutral due to the fact that they are directly associated with the use of forest biomass for energy. The declaration of carbon neutral is based on the biological process of sequestration, in which plants absorb CO2 from the atmosphere as they live and grow. When the plant decays, or is harvested and burned, the CO2 is released back into the atmosphere (EPA, 2018c). Biomass emissions are also sometimes described as 'recycled' CO2 versus the 'new' CO2 emission from the burning of fossil fuels. With regard to air quality, the small size of the engine (4kw) and the irregularity of use (backup system) imply a system that is not expected to contribute significantly to the degradation of the North Coast Air Basin. The gasifier and generator back up system for battery charging during periods of extended cloud cover is not subject to permitting by the North Coast Unified Air Quality Management District (NCUAQMD Rule 110; Correspondence: NRM with NCUAQMD permitting engineer and Humboldt County Planning and Building Department, March 9, 2021).

The gasifier recommended by the project's electrical engineer at Six Rivers Solar and the associated 4kw generator (i.e.: Honda EU2200i or equivalent) will be installed adjacent to the Multi-Use Building, replacing, or occupying the proposed generator shed. Fuel storage will be stored immediately adjacent to the shed or in the Multi-Use Building. The gasifier will utilize slash or chips from logging or maintenance projects on the ranch or purchase or receive chips or pellets from local sources. Th is gasifier will need to burn approximately 22 pounds of wood chips to replace one gallon of gasoline. While true charging time will depend on the specifications of the equipment (charger) and battery state (% charge), equivalent charging estimates (Tesla car charging) for 60kW of lithium ion battery storage with a 220V charging source describe an average charge time of six (6) to twelve (12) hours (Enel X, 2019). The EU22000i requires one (1) gallon of gasoline to provide 3.2 hours at maximum load. Assuming the generator will run at maximum load for the maximum time, the project will need 88 pounds of wood fuel to gain the equivalent of four (4) gallons of gas and 12 hours of charge time. The number and frequency of battery recharging with the gasifier will depend on the stage of the project (planting versus drying) at the time of battery recharge. To ensure that the project is prepared for a low battery charging event (extended cloudy weather), the project will keep approximately 300 pounds of wood fuel on hand. For reference, this would be around eight (8) 40lb bags of pellets.

If the project experiences a catastrophic emergency that results in a total failure of the project's internal distribution system (CARB, 2018), the project will use a portable generator to maintain plant viability (power to support propagation and drying). This emergency backup generator will be brought in from offsite; it will meet current engine requirements and will be equipped with a non-resettable hour-meter (3 CCR § 8306).

2.8 Construction

The project and associated construction components will be split into three (3) active phases as identified in the Project Timeline (2.4). The combined construction period (all Phases) will be between 13 and 16 weeks.

All construction will take place during daylight hours; no lighting will be required for construction purposes. Heavy equipment used during the construction phase will include a backhoe, compactor/roller, dump truck, water truck, concrete truck, and power tools. Power tools will use a generator provided by the contractor. Equipment will reach the sites using Highway 36 and Alderpoint Road and the un-named private ranch road. The contractor will operate in a manner that meets established construction BMPs: if any equipment is stored on site a drip pan will be placed underneath, fuel for the equipment will not be stored on site, and equipment will be inspected for leaks. During the construction phase, a portable toilet and handwashing station will be provided for construction workers and serviced at regular intervals by a portable toilet service provider. The project estimates that there will be an average of five (5) construction employees onsite during project construction.

The roads and the construction sites will be watered between 0-3 times per day, as necessary depending on meteorological conditions to suppress fugitive dust (PM10). Water used to fill the water truck for dust abatement will come from the existing water source (well). The maximum amount of water needed for dust suppression is for road dust; it is estimated to be as low as 1,671 gallons a day and as high as 34,335 gallons (for three (3) passes on roads) a day. See section 2.11.2 for more details.

Following the construction of all infrastructure, areas of bare dirt will be seeded with grass seed (no species on the California invasive list will be included in this mix) and covered with two (2) inches of weed free straw.

2.8.1 Phase I

Part one of the Phase I construction will include grading of the 2.2 million gallon rainwater catchment pond as well as upgrades to the main access road and existing garden access spur road (annual maintenance as recommended in the roads surveys (Appendix F) and addition of gravel to road). The proposed pond will have a total disturbed area of 61,756 sq.ft., of which the pond will occupy approximately 36,500 sq.ft. The cut and fill amounts are 6385 cubic yards and 6382 cubic yards respectively. The proposed Multi-Use Building is a rebuild of a burned down barn and will require scraping or 'blading' to level the site. The septic system and the alternative power system will require a limited amount of trenching. The earthwork is estimated to take approximately two (2) weeks to complete.

Part One (earthmoving)

Estimated Time for Completion = 2 weeks

- grading rainwater catchment pond
- rocking of main access road, spur, and parking areas

- grading/compacting for Multi-Use Building and slab foundation
- trenching for septic system
- trenching for alternative power system (earthtube)

Part Two of Phase I includes the construction (concrete slab, framing, siding, etc.) and the finish work (wiring, plumbing, etc.) of the large Multi-Use Building. The septic system and the propane tank will be installed and connected. The project proponent is also planning to construct two to four (2-4) propagation greenhouses during Phase I.

Phase I also includes planting up to two (2) new acres of outdoor cannabis and the existing 16,800 sq. ft. garden. The new acres have a low slopes and will not require grading; individual planted areas will be hand tilled with amendments in situ and the plants will be planted directly in the ground.

Part Two (construction & finish work)
Estimated Time for Completion = 8 - 9 weeks

- irrigation system development
- slab for Multi-Use Building
- construction of Multi-Use Building
- septic tank installation
- propane tank installation
- propagation greenhouse installation
- all electrical and plumbing connections

2.8.2 Phase II

No earthwork is proposed for Phase II.

The remaining three (3) acres of full sun outdoor will be tilled and planted and the three (3) acres of light deprivation will be tilled and planted. The light deprivation systems will be installed in very early spring during Phase II. The light deprivation structures are a low impact construction component as they consist of pvc hoops and panda tarps. The tarps are put up every spring and removed to storage every winter. The final two (2) propagation greenhouses, if not completed in Phase I, will be constructed during Phase II. Irrigation for the

Part Two (construction and finish work)
Estimated Time for Completion = 1-2 week

- propagation greenhouse installation
- construction of light deprivation infrastructure
- irrigation system development

2.8.3 Phase III

During Part One of Phase III, the 1,000,000 gallon rainwater catchment tank pad will be graded. This steel tank has a diameter of 167 feet and a footprint of approximately 21,904 sq. ft (Appendix H). To

secure a tank of this size, the tank will be bolted to an engineered concrete slab. Because the location of the tank (Figures 2 & 3) will be a low slope area, the grading for the slab is expected to be minimal.

Part One (earthwork)
Estimated Time for Completion = 0-1 week

- grading/compacting for rainwater catchment tank

Part Two of Phase III includes the finish work for the rainwater catchment tank and the final irrigation system installation and the installation of the alternative energy system (photovoltaic panels), and gasifier.

Part Two (construction & finish work)
Estimated Time for Completion = 2 weeks

- alternative power system installation
- installation of gasifier
- slab for rainwater catchment tank
- installation of rainwater catchment tank

2.8.4 Phase IV

There is no planned construction during Phase IV. Phase IV is the beginning of standard annual project operations.

2.9 Project Operations

When the project is running at full capacity (Phase II -IV) employees will be onsite in early spring to start the propagation greenhouse. In early spring (usually March) the propagation greenhouses will receive clones in soil cubes that come in sets of 100 on trays. When the cultivators transport the clones to the Project Parcel in early spring, they also bring one load of soil from a supplier in Eureka. The clones are immediately transplanted into four inch (4") pots. All soil is used. These clones are then set on the floor of the propagation greenhouse (weed matting) to mature and are hand watered. In March, the light deprivation three (3) acres are tilled and fertilized before receiving transplants from the propagation area (late March or early April). After the light deprivation area plants are in the ground, the full term acreage (six (6) acres plus existing 16,800 garden) is prepared by tilling and fertilizing and another round of clones is brought into the propagation greenhouses. The full term gardens are generally planted with plants from the propagation greenhouse in May. In early July, the propagation greenhouses are supplied with an additional load of clones and soil for replanting to supply the second run of light deprivation cultivation. See Table 2 for approximate full term and light deprivation planting and harvesting schedules.

When the project is running at full capacity (Phase II - IV), the first harvest from the light deprivation acres (3) will take place in July; the second (2) harvest will take place in October/November when the second (2) light deprivation run and the outdoor will be harvested.

Harvests will consist of cutting the plants of excess stem and leaves and transporting them to the Multi-Use Building. The product from the existing 16,800 sq. ft. garden will be transported from the garden to the Multi-Use Building on a truck trailer; the product from the proposed six (6) acres of cultivation will be cut

and walked out of the garden to the road where it will be loaded onto a truck trailer. The cut stems and leaves will be moved in a truck to the compost area. After drying in the Multi-Use Building, the plants will, most often, be moved offsite for processing; some plants may also be moved to a designated processing area in the Multi-Use Building where the plants will be finished/trimmed by hand and/or machine and then packed for transport offsite. The project anticipates finishing most product offsite. All product that is awaiting transport offsite will be held in a secured room or in a secured shipping container inside of the Multi-use Building.

Table 2. Proposed Cultivation Schedule(s)*

Full Term Gardens	*Light Dep 1st Run*	*Light Dep 2nd Run*
May-June (Veg) June-October (Flower) November (Flower/Harvest)	March-April (veg) May-July (flower) July (harvest)	July-August (veg) August-October (flower) October (harvest)

*Actual start date will vary; dependent on a variety of factors including local weather and specific cannabis strain requirements.

All soils for plants (propagation, full term, and light dep plants) are fertilized the same way. Fertilizer is dissolved or mixed into water and delivered to plants. Plants, when needed, are treated for pests and fungus using beneficial bugs or a powdered sulfur fog. All irrigation of cannabis (apart from hand watered propagation greenhouses) is completed by a timed, metered, drip irrigation system that prevents over watering. During the summer months, the cultivator may supplement the watering system with hand watering where necessary (depending on individual plant needs).

2.9.1 Site Winterization

Before wet season rains begin, and in preparation to leave the site until Spring, the following winterization protocols from the SWRCB Cannabis General Order WQ 2019-001-DWQ will be observed:

- All organic materials will be removed to the compost pile. Compost pile will be covered with a roof and three sides and an impermeable floor or the proponents will use a weighted tarp system with a straw wattle perimeter.
- Greenhouse sheeting and systems will be removed to storage for overwintering.
- All light deprivation tarps will be collected and moved to storage in a shipping container or the Multi-Use Building.
- All solar electric battery components will be removed to storage in Multi-Use Building (with spill containment).
- All gasoline containers, nutrients, and other chemicals will be removed to long term storage in Multi-Use Building (with spill containment).
- Culverts will be inspected to ensure they are not blocked by debris or sediment.
- The site will be inspected for garbage and all solid waste and recycling removed offsite for the winter.
- All planted acres will be seeded with a cover crop (i.e., clover) with weed free straw used.

2.10 Employees

During Phase I, the project anticipates six (6) full time employees. Employees are expected to be hired from the existing workforce in the nearby communities of Alderpoint and Blocksburg; they will work during the day and return home in the evening. A round trip commute from Blocksburg to the project site will be just under seven (7) miles. Extending the round trip to the community of Alderpoint will add an additional 20

miles. Phase I employees will drive personal vehicles to the existing carpool parking area (See description in section 2.6). The majority of employee vehicles will remain in the parking area as the employees will be required to carpool to the project site. Only one to two (1-2) vehicles are expected to travel the remaining length of the access road to the cultivation area.

Phase II-IV of the project anticipates using approximately 20 employees on average throughout the season to plant, tend, harvest, and process the 278,160 sq. ft. of total project cultivation. For five to eight (5-8) weeks, during times of increased labor (planting and processing the final crop(s)), the project might, depending on availability of labor, increase the number to 25. The project will purchase one (1) or two (2) passenger vans that will seat 12 to 15 people. Employees will be picked up and dropped off at their houses using a project van/s in a fashion similar to that of a school bus. In total, the two vans will make a maximum of two (2) morning and two (2) evening trips per day for a total of two (2) round trips per day. The van/s will be parked overnight at the home of the project proponent or that of the van driver and will remain at parked at the Muti-Use Building during the day when employees are on site. The exception to this will be those times in the early spring and late fall when employee numbers are low (six (6) or less) due to a ramping up or a slowing down of cultivation activity. During these times, as in Phase I, employees will utilize their personal vehicles and the carpool parking lot.

From the parking area near the Multi-Use Building and the parking area in front of the existing 16,800 sq. ft. garden, employees will walk to their assigned work locations using designated natural surface paths that will be approximately two (2) feet wide. These paths are anticipated to maintain grass cover for most of the season as the area is a natural grassland with existing and well established vegetation communities; the anticipated use (walking) is not considered intensive.

2.11 Water

2.11.1 Water Infrastructure

Well

There is one existing well onsite that will be used for the project. The well has a production rate of 28 gallons/minute, as established in a recent drawdown pump test. This production rate will allow the project to pump up to 40,320 gallons in 24 hours. (Appendix I for well report and drawdown test details).

Water Storage (pond and tanks)

Pond: The 2.2 million gallon rainwater catchment pond will be constructed during Phase I. Depending on the timing of project approval pond may be constructed prior to phase I growing season, or after phase I growing season. The pond will collect water over the winter (between Phase I/II) and be ready for use during Phase II.

Tanks: The project currently has two (2), 2,500 gallon hard-sided plastic tanks (polyethylene); these tanks serve as water transfer and storage for the existing 16,800 sq. ft. full term garden. During Phase I, the project will add an additional (2) 2,500 gallon plastic tanks. During Phase III, the project will add a steel 1 million gallon rainwater harvest/storage tank. The tank will collect water over the winter (between Phase II/III) and be ready for use during Phase III.

The total amount of water in storage at full build out (Phase III) will be 3,210,000 gallons.

Irrigation System
Water conservation efforts will include a timed drip irrigation system(s) for all gardens and the use of mulching to manage soil evaporation. Water transfer lines will be checked regularly for leaks from poor seals, cracks, and other damage; if damage is found, the system will be immediately repaired.

2.11.2 Estimated Water Use

Construction
The project will use water during construction to manage fugitive dust. A toilet and handwashing station will be a rented and maintained by a local portable toilet company. Drinking water will be brought onsite by individuals for individual use and the toilet facility.

A water truck will be onsite to spray roads, grading areas, and spoils piles, if necessary, during initial road improvements and during project construction. If a water truck is needed, the truck will spray roads during gravel spreading and grading sites/spoils between zero to three (0-3) times per day. For this project, dust is anticipated during the transport and spreading of the gravel on the road surface, and during the scraping/grading and excavation components. The Multi-Use Building will be scraped with some excavation for the installation of the alternative energy system (see section 2.7). The project will require some grading to level the ground where the rainwater catchment tank will be located, and there will be limited excavation for septic tank and system installation.

Establishing a representative number of gallons of water needed for dust suppression is difficult and application rates can vary; the difficulty lies in that water demand is directly relative to the meteorological conditions leading up to and during the planned dust emission events, traffic on the road or site during dust suppression (BLM, 2016), as well as soil condition and type (Yonkofski, 2018). In order to gauge this complexity on the ground, water sprayer/truck operators often rely on trial and error, with best management practices (BMPs) that describe indicators in terms of visible emissions (40% opacity); or track out where dirt, either dry and loose, or too wet and mobilized, is carried out of the construction area (NCUAQMD 2015). This variability is noted in the records of water use; in one review of common practices, the application of water for dust suppression ranged from 0.1 to 4.5 L/m2 (Yonkofski, 2018).

In an effort to estimate the gallons of water needed to suppress fugitive dust during earth moving activities, this analysis takes the mean amount (2.3 L/m2) from the aforementioned ranges. At 2.3L/m2, the road would require 11,445 gallons of water to prevent dust (up to 34,335 gallons for three (3) passes). At 2.3L/m2, the grading/scraping and excavation would require 5,157 gallons of water to prevent dust. See Table 3 below. While the reality of the construction progress is not parsed into specific units as described in the Table 3 (i.e., the entire road may be rocked over several days, requiring water for dust prevention only once or multiple times per work area), the totals provide working estimates of potential water use for dust suppression. Therefore, with the project's water storage (5,000 existing) and a daily recharge rate of 40,320 gallons, the project would be able to provide and sustain all estimated water needed for effective and ongoing dust suppression.

Table 3. Estimated Gallons of Water Required for Project Construction Dust Prevention by Area

Water Application rate = 2.3L/m2				
Project Feature	**Area (sq. ft.)**	**Area (m2)**	**Water needed - Liters**	**Water needed - Gallons**
Primary and Spur Roads	3.2 miles (16,896ft) @ 12ft wide = 202,752	18,836.3	43,323.49	11,445
(P) Rainwater Catchment Pond (2,200,000 gallons)	61,756	5,737	13,195	3,486
(P) Rainwater Catchment Tank (1,000,000 gallons)	21,904	2035	4680.5	1,236
(P) Generator Shed(s)	100	9.3	21.2	5.6
(P) Multi-Use Building (120' x 60')	7,200	669	1538.7	406.5
Proposed Alternative Energy System	+/- 400	37	85.1	22.5

Operations

Water will be used during project operations to irrigate crops and provide water for drinking, sinks, and toilets. According to the Federal Water Use Indices, employees in a range of commercial setting use between 10 to 15 gallons of water per day (includes drinking water, toilet, and handwashing) (2020; US Dept Energy). This agricultural setting is likely to demand water at the upper range of 15 gallons per day per employee. Therefore, with 20- 25 employees on site per day during Phase II-IV (see section 2.13), the project will provide an additional 9,000 to 11,250 gallons per month (30 days), or 54,000 to 67,500 gallons per season (six (6) months). During Phase I, with six (6) employees, the project will demand an additional 2,700 gallons per month (30 days), or 16,200 gallons per season (six (6) months).

Based on the project proponents' experience with outdoor and light deprivation cannabis cultivation in the same geographic area as the proposed project (existing 16,800 sq. ft. and additional nearby cultivation (PLN-10812-CUP), the project estimated that each acre (includes both full term and light deprivation) of cannabis cultivation will require between 5,000 to 7,000 gallons of water every two to three (2-3) days depending on time of year and weather conditions. This means that during Phase I, if the project plants one (1) acres of outdoor in addition to the existing 16,800 sq. ft of existing full term outdoor (total of 1.39 acres), the project could use between 424,940 and 892,376 gallons of water for crop irrigation; these numbers represent the extreme minimum number of gallons and the extreme maximum number of gallons that could be used. A more likely number (Table 4, blue) is based on seasonal averages in which the hottest months (July, August, September) use the most water and the cooler months (May, June, October) use the least water. This more likely scenario results in approximately 658,658 gallons of water to irrigate one (1) acre and 16,800 sq. ft. of outdoor cannabis. See Table 4 below for irrigation use calculations. Adding in the employee water use, the total increases to 674,858 gallons of annual project use. If two (2) acres are planted,

the number of gallons increases by 478,400 for a potential maximum Phase I total of 1,153,258 gallons. This amount can be provided by the onsite groundwater well; See Section 2.11.3. Depending on timing of project approval, the rainwater catchment pond may be in place and would therefore be used in lieu of the well as primary irrigation water source for Phase I.

Phase I of the project, including employee use, is estimated to be between 674,858 and 1,153,258 gallons of water.

During Phase II/III, the total acreage planted will be up to six (6) acres plus the existing 16,800 sq. ft. of existing (total of 6.39 acres). Project operations at full capacity could consume a maximum (drought conditions) of 4,112,375 gallons and as little as 1,958,274 gallons of water for crop irrigation. These numbers represent the extreme maximum number of gallons and extreme minimum number of gallons that could be used. A more likely number is based on seasonal averages in which the hottest months (July, August, September) use the most water and the cooler months (May, June, October) use the least water. This more likely scenario results in approximately 3,035,326 gallons of water for crop irrigation. Adding in the average anticipated propagation water use moves the number up to 3,090,326 gallons of water for the project. See Table 5. below for irrigation use calculations (numbers in blue represent most likely scenario of water use). Including the additional maximum 67,500 gallons for employee use, the total increases to 3,157,826 gallons of annual project use.

At full project operations, water use is estimated to be 3,157,826 gallons of water.

The 2.2 million gallon rainwater catchment pond will be in place and will be used as a primary irrigation water source for Phase II and Phase III. Water use in excess of storage capacity (3,157,826 gal demand - 2,210,000 gal storage) will be 947,826 gallons per year.

The 2.2 million gallon rainwater catchment pond and the 1 million gallon rainwater catchment tank will be in place for Phase IV. Water use in excess of storage capacity (3,157,826 gal demand - 3,210,000 gal storage) will be -52,174 gallons; that is, by Phase IV, the project is expected to have a passive storage capacity that supplies all of the water needs for the project.

Table 4. Phase I: Expected Use (Blue) and Max/Min Range of Irrigation Water Use *

	Jan	Feb	March	April	May 31 days	June 30 days	July 31 days	August 31 days	September 30 days	October 31 days	Nov	Dec	**TOTAL** gal/year
Max H20 = 7,000 gallons /2 days per acre	0	0	0	0	150,346	145,496	**150,346**	**150,346**	**145,496**	150,346	0	0	892,376
Min H20 = 5000 gallons /3 days per acre	0	0	0	0	**71,593**	**69,284**	71,593	71,593	69,284	**71,593**	0	0	424,940

*Where total acres = 1.39

Expected Use = 658,658

Table 5. Phase II/III/IV: Expected Use (Blue) and Max/Min Range of Irrigation Water Use

	Jan	Feb	March	April	May* 31 days	June* 30 days	July* 31 days	August* 31 days	September* 30 days	October* 31 days	Nov	Dec	**TOTAL** gal/year
Max H20 = 7,000 gal /2 days per acre	0	0	0	0	692,846	670,496	**692,846**	**692,846**	**670,496**	692,846	0	0	4,112,375
Estimated average propagation water use**	0	0	**10,000**	**10,000**	**10,000**	**10,000**	**10,000**	**5,000**	**0**	0	0	0	55,000
Min H20 = 5000 gallons /3 days per acre	0	0	0	0	**329,927**	**319,284**	329,927	329,927	319,284	**329,927**	0	0	1,958,274

*Where total acres = 6.39 and where light deprivation cultivation and full term are not distinguished

** Where propagation water use is approximately 2,500 gallons/week

Expected Use = 3,090,326

2.11.3 Feasibility

Phase I (well)

During Phase I, the primary water source will be the existing well; the 2.2 million gallon pond may be constructed. The well has a production rate of 28 gallons/minute, as established in a recent drawdown pump test (Appendix I). This production rate will allow the project to pump up to 40,320 gallons in 24 hours. In Phase I, the project will plant 1.39 to 2.39 acres of outdoor cultivation. For 1.39 acres, if the temperature demands the maximum anticipated amount of water (7,000 gallons per acre per two (2) days) for plant success, the water use will be 9,700 gallons every other day. The project will stagger garden watering and administer 4,850 gallons per day over eight (8) hours. Expansion of Phase I to two (2) acres and 16,800 sq.ft. is also feasible; for 2.39 acres of cultivation at maximum temperatures, the water use will be 8,350 gallons per day. With the maximum irrigation demand at 8,350 gallons per day and a total potential well recharge rate of 40,320 gallons per day, the use of the existing well as the primary water source for Phase I is feasible..

Phase II/III (well and rainwater pond)

During Phase II/III, the primary water source will be the exiting well and the 2.2 million gallon pond. During this phase, the project will plant up to 6.39 acres of full term outdoor and light deprivation cannabis. If the weather conditions during the growing season (does not include propagation water) require the maximum amount of water, 7,000 gallons every two days per acre, the project will use 44,700 gallons every other day. The project will stagger garden watering and administer 22,350 gallons per day.

The addition of employee water use (9,000 to 11,250 gallons per month or a maximum of 375 gallons per day) and propagation water requirements (10,000 per month or approx. 333 per day; see Table 5) would mean that demand during Phase II/III could reach a total of 23,058 gallons per day. This amount is still within the daily capacity of the well alone (recharge rate is over this amount); total water demand for Phase II and III is sustainable.

While water demand for Phase II/III irrigation using only the existing well is feasible, the project will have the benefit of the 2.2 million gallon rainwater catchment pond to support irrigation demands. The 2.2 million gallon rainwater catchment pond will be in place and will be used as a primary irrigation water source for Phase II. Water use in excess of storage capacity (3,157,826 gal demand - 2,210,000 gal storage) will be 947,826 gallons. This amount is expected to be withdrawn from the well.

Phase IV

Phase IV will see the same potential water demand as Phase II/III, but will include both the 2,200,000 gallon rainwater catchment pond and a 1,000,000 gallon rainwater catchment tank. The 2.2 million gallon rainwater catchment pond and the 1 million gallon rainwater catchment tank will be in place for Phase IV. Water collection and storage exceeds demand by 52,174 gallons (3,210,000 gal storage - 3,157,826 gal demand). By Phase IV, the project is expected to have a collection and storage capacity that supplies all of the water needs for the project. Well use is not anticipated, but will be available as a backup water source.

2.12 Water Quality

The gardens, propagation greenhouses, Multi-Use Building, compost area, and rainwater catchment tank observe all Humboldt County and State (SWRCB) setbacks to riparian habitats. The project parcels have two (2) seasonal wetlands and a perennial wetland/pond feature located to the east of the proposed expansion area as well as an additional small slope wetland located to the west of the proposed cultivation area and an additional wetland feature located northeast of the existing 16,800 sq. ft. full term garden. The proposed six (6) acres of outdoor cultivation on APN 217-471-001 will observe the most conservative (maximum) setback of 100 feet from the seasonal wetlands (SWRCB) or more (Mitigation Measure- Bio 6; Figure 12) and a setback of 150 feet from the perennial wetland (Humboldt County SMA).

Storm Water

In an effort to minimize concentrated stormwater runoff from the cumulative addition of approximately 7,200 sq. ft. of impermeable roof surfaces (Multi-Use Building), the project will employ infiltration tranches/french drains as a method of managing the runoff from the Multi-Use Building. Storm water is expected to infiltrate in the distance (approximately 250-feet) between the gutter exit points and the nearest water features (wetlands).

The 21,904 sq. ft. rainwater catchment tank will not have storm water runoff. In the event that the tank fills, the tank will have a standard pipe to ground overflow system that will be directed away from the wetland. The light deprivation hoop houses and propagation greenhouses will use sheeting during the growing season (early spring through fall); all sheeting will be removed during the rainy season. In preparation for the rainy season, all in ground planting areas will be planted with a cover crop and weed free straw or other mulch will be used.

Dirt roads and poorly sized or designed stream crossings are known to contribute to poor water quality through sheet erosion, bank erosion, and even road washout. The project will add gravel to all project roads such that dust and sediment transport through sheet flow or surface erosion are minimized. There are five (5) stream crossings on the project parcel that have been identified as poorly designed or undersized. These crossings will be improved with the long term goal of improving water quality by eliminating sediment inputs from erosion and crossing failures (CDFW LSAA No. 1600-2020-0271-R1, Appendix K).

The existing 16,800 sq. ft. project was originally enrolled in the North Coast Regional Water Quality and Control Board order (R1-2015-0023; WDID 1B161057CHUM) and is now enrolled in the current State Water Resources and Control Board General Cannabis Order (WQ 2019-0001-DWQ; WDID 1_12CC419213). Pending project approval, the enrollment will be modified to include the additional proposed cultivation. The project will implement all applicable Best Practical Treatment or Controls (BPTCs) outlined in the State Water Board's (SWRCB) Cannabis Cultivation Policy (Attachment A, Section 2, February 2019).

Construction

Soil disturbance, grading, will occur at the prosed rainwater catchment pond site as a result of this project. The project will not grade the proposed planting areas (6 acres) or conduct large scale tilling. Instead, each

designated plant location will be individually tilled by hand. The Multi-Use Building will be located in the footprint of a burned down barn. Preparation of this site will require scraping to level the site for rebuilding.

The 1 million gallon, 21,904 sq. ft., rainwater catchment tank will include leveling. In the context of significance to water quality, the potential for slumping and sliding that could result in tank failure are not relevant in that the tank will be located on slopes of 15% or less and will require an engineered pad that will review site specific soil conditions to the extent deemed necessary.

The amount of earth moved as a result of proposed 2.2 million gallon rainwater pond grading will be 6,385 cubic yards. As outlined in the Grading and Erosion Control Plan (Appendix H), Linear sediment controls (straw wattles) will be installed at the toe of the slope, face of the slope, and at the grade breaks of exposed slopes control and capture sediment at the pond site. A temporary silt fence will be used at the base of the slope. Wattles will be left in place as revegetation progresses. All disturbed soils resulting from construction disturbances will be revegetated. Natural seeding from the surrounding grasslands and, where necessary, supported revegetation (seed casting), is expected to rapidly re-populate disturbed areas with grasses. Wattles, silt fencing, and revegetation on areas of low natural slopes will eliminate sediment mobilization associated with bare ground. In addition, the project will apply for the SWRCB Construction General Permit and adhere to all stormwater requirements developed therein.

Agricultural runoff

The threat to water quality from agricultural runoff is not significant at this project location. Plants will be watered by a controlled and automated watering system at agronomic rates to prevent overwatering and eliminate runoff. The watering system will be periodically inspected for leaks and worn parts will be immediately replaced. The natural slope of the site is low, described as "nearly" or "relatively" level by the geological consultants and archeological that visited the site (Appendix E). Any escaped runoff would travel through the mulch used by the project and across the site at a low velocity and over grazing land (grass); the potential for escaped cultivation runoff to move sediment and contaminate streams is very low. See Sections 4.4.4, 4.7 and 4.10 for more details.

2.13 Hazardous Materials - Fertilizers, Pesticides, Rodenticides and Petroleum Products

2.13.1 Fertilizers, Pesticides, Rodenticides

The project will apply fertilizers and pesticides. The project will not use rodenticides. The nutrients and pesticides will be stored in locked metal storage cabinets and all liquid chemicals will have secondary spill containment in the form of plastic totes or spill containment pallets. Granular fertilizers will be located in the Multi-Use Building in their original bags/buckets on top of a tarp/sheeting with perimeter edges wrapped upward to prevent spill out. A spill kit will be kept in the Multi-Use Building; this spill kit will contain kitty litter, sorbent pads, shovel, polypropylene broom, a large bucket with a lid, disposal bags, gloves, and safety goggles.

In order to limit over fertilizing, the project has had site soils tested for chemical composition (TeaLAB, Appendix L); this analysis will be the basis for fertilizer composition. The fertilizer will be a granular recipe containing the missing/necessary chemical components and will be applied at 50 pounds per 100 sq. ft. The granular 'tea' will be applied to the six (6) acres (261,360 sq. ft.) of new cultivation over two (2) seasons

(Phase I and Phase II); this will result in an approximate total of 130,680 lbs. of fertilizer applied. The project anticipates that once the soil is brought up to an improved level with planned initial amendments, subsequent testing will show a more even chemical balance with a less intensive (lbs./sq. ft.) amendment regime going forward. The project proponents will submit the fertilizer recipe and anticipated amounts to the county CUPA officer for review (See Section 4.9 for more details). All Safety Data Sheets (SDSs) will be posted wherever chemicals are stored or applied.

Pests will be managed in two ways. The first method is through the use of predator insects. These 'beneficial bugs' are applied by hand to the plants; they are shaken onto targeted plants. These insects are not stored onsite, but instead are brought to the project parcels and used immediately (within 24 hours).

The second method of managing pests is through the application of powdered sulfur. The sulfur is stored in the Multi-Use Building in sealed plastic totes. One to two (1-2) 40-pound bags are kept on hand. Sulfur is commonly used on agricultural products and is ubiquitous in the environment. The EPA's pesticide reregistration factsheet (EPA, 1991) and subsequent reregistration review (EPA, 2015) conclude that negative human health impacts from sulfur, when used as a pesticide, are generally associated with inhalation by handlers. As recommended by the EPA, the project's sulfur handler will wear a respirator, goggles, gloves and protective clothing when applying powdered sulfur. Sulfur will be applied on clam days to maximize the application of the product and to avoid drift.

Sulfur impacts on aquatic and terrestrial species, to the extent known, are less than significant as the EPA has found that sulfur has "no effect" on listed aquatic species and listed terrestrial vertebrates that do not rely on insects as a primary food source. The National Pesticide Information Center (NPIC) publication about sulfur describes sulfur as being "practically non-toxic" to honeybee pollinators (Boone, C. et. al., 2017).

The project will keep cleaning chemicals (one (1) gallon industrial peroxide) on hand for cleaning and sanitizing of the drying/processing areas and equipment, as well as the periodic cleaning and sanitizing of other workspaces and equipment. The cleaning chemicals will be kept in a storage bins in the Multi-Use Building.

2.13.2 Petroleum Products: Gasoline and Propane

The project will use gasoline onsite. During normal long term operations (Phase IV), the project will keep 20 gallons of gasoline on hand in four (4), five (5) gallon containers) as fuel for property maintenance and cultivation equipment (gasoline powered pesticide (sulfur) fogger, string trimmer, lawn mower, and emergency vehicle needs). Property maintenance equipment and fuel will be stored apart from the fertilizers in the Multi-Use Building. This building will have an impermeable concrete floor and the fuel will be stored in corrosive resistant plastic bins. In addition to property upkeep equipment and fuel, there will also be a location for the storage of other cultivation related components. These components include irrigation tubing and repair equipment, plant support stakes, and biodegradable trellis among other things.

During Phase I-III, the project will keep fuel for gasoline generators in addition to the 20 gallons of general property maintenance and cultivation equipment fuel. In general, the generator fuel will be stored in

waterproof totes that provide spill containment in the generator sheds and the Multi-Use Building (four (4) to eight (8), five (5) gallon containers). During periods of peak fuel use, the project will resupply daily or every other day or daily depending on amount of fuel used. All fuel containers will be transported in trucks in secondary containment (corrosion resistant totes or other spill basins).

Depending on meteorological conditions, the drying could require up to 24 hours of generator use and around 18.5 gallons of gasoline per day (37 gallons for two 7000iS generators).

Heating fuel for the project will be provided by propane. Propane is not regulated by the Aboveground Petroleum Storage Act (APSA) as it volatilizes when not under pressure. The propagation greenhouses and the Multi-Use Building will utilize propane heaters to manage climate during propagation and drying of the crop. The propagation greenhouses are expected to use between 25 to 50 gallons of propane per week (per greenhouse). In a typical year, propagation heating will only be needed in the spring (not anticipated for mid-season clones) for an average of eight (8) to 16 weeks. With all five (5) propagation greenhouses running, the average amount of propane used to heat propagation greenhouses will be 400-800 gallons of propane for one (1) season of regular propagation greenhouse use. Propane will be sourced from portable 100-pound bottles of propane (approx. 24 gallons each).

During harvest, the drying room in the Multi-Use Building will be carefully controlled. Propane heat will be used during this time to bring up the ambient temperature. Approximately 75 gallons of propane use per week is anticipated during harvest season. The staggered harvests mean that the project will harvest light deprivation during July and October (approx. six (6) weeks of drying) and the full term outdoor during November (another four (4) weeks of drying). The 10 weeks of drying means that the heaters in the drying room of the Multi-Use Building could burn up to 750 gallons of propane per season. The propane for the Multi-Use Building will be sourced from a 300-500 gallon propane tank located near the Multi-Use Building that is above ground and bolted to a concrete pad. This tank will be installed and filled two to three (2-3) times per season depending on final tank size decision by a licensed operator (Sequoia Gas or equivalent). In addition to space heating, the propane may also be used to heat water for the restrooms. The amount of propane that the Multi-Use Building will use is expected to decrease as the alternative energy system should accommodate most heating requirements.

2.14 Solid Waste

The solid waste produced by the project will be cultivation and employee generated. During project operations, cultivation related refuse will primarily consist of plastics used for packaging. Employee generated refuse will be non-recyclable plastic packaging and food waste. All solid waste will be collected in cans with lids that will be located inside of the Multi-Use Building. The project will locate wildlife proof garbage cans in the garden for onsite collection. Refuse will be removed weekly to the Eel River transfer station in Fortuna.

Cultivation related recyclables will primarily consist of recyclable plastic containers from nutrients, and cardboard packaging (depending on how the nutrient tea is packaged) as well as some amount of plastic over time from degraded greenhouse sheeting and tarps. The project will not use any cultivation materials that contain synthetic (e.g., plastic or nylon) netting, including photo- or biodegradable plastic netting All

nutrient containers that are recyclable will be rinsed before they are put in the recycling collection can. The employee generated recyclables consisting of plastic containers, glass, aluminum, and cardboard/paper will be put in the recycling collection cans. Recyclables will be collected in cans with lids and stored alongside the refuse cans inside of the Multi-Use Building. Recyclables will be removed weekly to the Eel River transfer station in Fortuna (with the refuse).

An additional component of cultivation waste produced by the project will be compostable green waste in the form of root balls, stems, leaves, and trim. This green waste will be processed onsite in a contained composting area that is expected to be located north of the proposed cultivation area adjacent to the project road (See Site Plan, Appendix A). The composting area will be approximately 900 sq. ft. (max) in size with an impermeable floor; it will have a roof and three sides or be tarped with straw wattles during rain events. The composting operation is not expected to exceed 500 cubic yards of materials at any one time; it is exempt from the SWRCB general order concerning composting operations (WQ 2015-0120-DWQ). The site is exempt from State of California regulations limiting and regulating composting operations because the project handles only 100% agricultural materials derived from an agricultural site with the end product returning to the soil onsite (14 CA ADC 17855). The project will cover plant materials with soil and a cover crop (and hay when necessary for erosion control) to facilitate breakdown of the woody structures.

Construction related waste will be removed for recycling (i.e., cardboard) or landfill (plastic packaging of greenhouse materials, caulking tubes, etc.) by the contractor. A portable chemical toilet and handwashing station will be provided for construction crew (rented and maintained by Eel River B&B or equivalent) for the duration of the construction period.

2.15 Wastewater

Like most rural areas in Humboldt County, the project will rely on a permitted septic system to manage wastewater that will be produced by the site. Wastewater from the project will come from ADA compliant restrooms and sinks in the large Multi-Use Building. Irrigation water will be applied to plants in the ground at the appropriate agronomic rate; no indoor or hydroponic systems are proposed. The project area is in the Upper Larabee Creek hydrologic unit (HU) and the Lower Eel River Planning Watershed. This HU is not identified by Humboldt County's Onsite Wastewater Treatment System (OWTS) Regulations and Technical Manual as an area of special concern (2017b). The project has had soil testing for septic siting completed in 2016. Several test pits revealed samples characterized as "Zone 2" soils. Soils in these zones are often readily permitted for conventional septic systems. The final septic siting and design will be completed during the building permitting stage. See Appendix E for a complete description of soils and for the results of the soil suitability analysis.

2.16 Security

The project's security plan consists of three (3) major components: physical barriers, cameras, and security lighting. The project will fence the perimeter of the cultivation areas with six (6) foot tall steel rodent proof fencing. The proposed garden entrances, like the existing garden, will have locked entrance gates. The access road and the spur roads to the garden areas (existing and proposed) have locked gates that will block uninvited vehicle access.

The project will place battery powered satellite security cameras to monitor the garden entrances, the entrances of the Multi-Use Building, and the access road. The Multi-Use Building entrances/exits will also have security lighting. These will be shielded exterior LED lights with low B.U.G. (backlight, uplight, glare) with a color rating of 2500K (soft warm). There will not be overnight security or onsite housing.

2.17 Fire Prevention Plan

This Project Description for Blocksburg Family Farms LLC (ISMND) includes the periodic use of gas powered generators as well as the occasional use of a gas powered fogger and maintenance equipment - string trimmers, mowers. This plan serves as a guide for operators in order to reduce the risk of wildfire from improper generator or equipment use.

The most common ways that gas powered maintenance equipment (string trimmers, mowers, etc.) start fires are sparks, heat from the exhaust, being left on flammable materials when still hot, being refueled while hot, and by being used without regard to weather conditions.

Risk Factors

Sparks -Stop frequently and clear the area.

Heat from exhaust pipes - Heat from the exhaust can start fires during operation if working in close proximity to brush, branches, etc. Stop frequently and clear the area

Being unattended while still hot – Equipment that is set down in brush or dry grass when hot can start fires. Best practice would be to identify a safe place to set the equipment before work begins. Leaving a generator unattended can increase risk of a malfunction or similar issue becoming a fire hazard.

Being refueled while still – Gasoline is highly combustible and can ignite if equipment is hot while refueling.

Time of Day/Season – equipment that is used during the middle of the day when humidity levels are the lowest have a higher probably of starting fires. Similarly, maintenance equipment should not be used during designated 'red flag warning' times. Generator use, like maintenance equipment, should and associated fire risk should be carefully evaluated during high heat/low humidity and designated 'red flag warning' times.

2.17.1 Maintenance Equipment – Fire Prevention Plan

When operating equipment during a High, Very High, or Extreme Fire Danger Rating*, the project proponent will ensure that the equipment operator:

- Stop frequently and clear/check the area – horizontal and vertical clearance
- Not set down equipment in flammable materials
- Refuel equipment when cool
- Locate a shovel and fire extinguisher near the work area
- Use a spotter (a second set eyes to catch spot fires) if working during Very High or Extreme Fire Danger levels
- Postpone operation of maintenance equipment until after red flag warning days.

** Use https://m.wfas.net/ or call CalFire to determine fire danger rating.*

2.17.2 Generators – Fire Prevention Plan

When operating generators during a High, Very High, or Extreme Fire Danger Rating, the project proponent will ensure that:

- There is a fire extinguisher located nearby
- The generator is not sitting in dry grass or brush that could ignite

- The generator is refueled when cool
- Gas is not stored next to the generator while running.
- Generators are maintained
- There is a designated 'generator operator' that inspects the generator before and after ignition and periodically checks the generator while running.

** Use https://m.wfas.net/ or call CalFire to determine fire danger rating.*

2.18 Evacuation Plan

In case of an emergency, the onsite project operator or manger will facilitate employee evacuation. Assumptions are indicated in *italics*. It is also hereby noted that Future OSHA Emergency Action Plan/s may supplement or replace this plan

2.18.1 Phase I Evacuation Plan

1. The manger will call/text crew leaders/employees
   Cell phones are operable in the proposed project area.
2. The manger will shut off any generators or other equipment that may be operating at evacuation time.
3. Employees will board cars/trucks that are onsite.
4. Manger will establish that all employees are present.
5. Cars/trucks will drive west on private access road to Alderpoint Rd.
6. Alderpoint Rd. is regional evacuation route and vehicles will travel north or south on Alderpoint Rd. to evacuate.

2.18.2 Phase II+ Evacuation Plan

1. The manger will call/text van drivers
   Cell phones are operable in the proposed project area.
2. The manager will call/text garden crew leaders.
3. The manger will shut off any generators or other equipment that may be operating at evacuation time.
4. Van drivers will prepare vans (find keys and open doors).
   Vans will be parked on site near Multi-Use Building.
5. Crew leaders will gather crews and go to multi-Use Building.
6. All Employees will board vans.
7. Manger will establish that all employees are present
8. Vans will drive west on private access road to Alderpoint Rd.
9. Alderpoint Rd. is regional evacuation route and vans will travel north or south on Alderpoint Rd. to evacuate.

NRM
NATURAL RESOURCES MANAGEMENT
CORPORATION

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September 20, 2019

To whom it may concern,

Attached is the Water Resource Protection Plan for APN 217-216-001-000 / RWQCB WDID 1B161057CHUM / SWRCB App# 419213. This document was written and/or last updated by NRM in February 2019. Since this date, there have been some changes to the project operations and property infrastructure.

This property has been enrolled in the SWRCB and the Site Management Plan associated with this enrollment is due by 9/28/19. NRM is submitting this WRPP as a placeholder for the SMP. NRM is currently working on completing the SMP, which will accurately encompass all aspects of the project/property and how they relate to water quality; the SMP will also address any changes/improvements that need to be made in order for the property to be in compliance with all BPTCs.

Sincerely,

Alicia Heitzman
Cannabis Compliance Supervisor
aheitzman@nrmcorp.com
(707) 269-1377

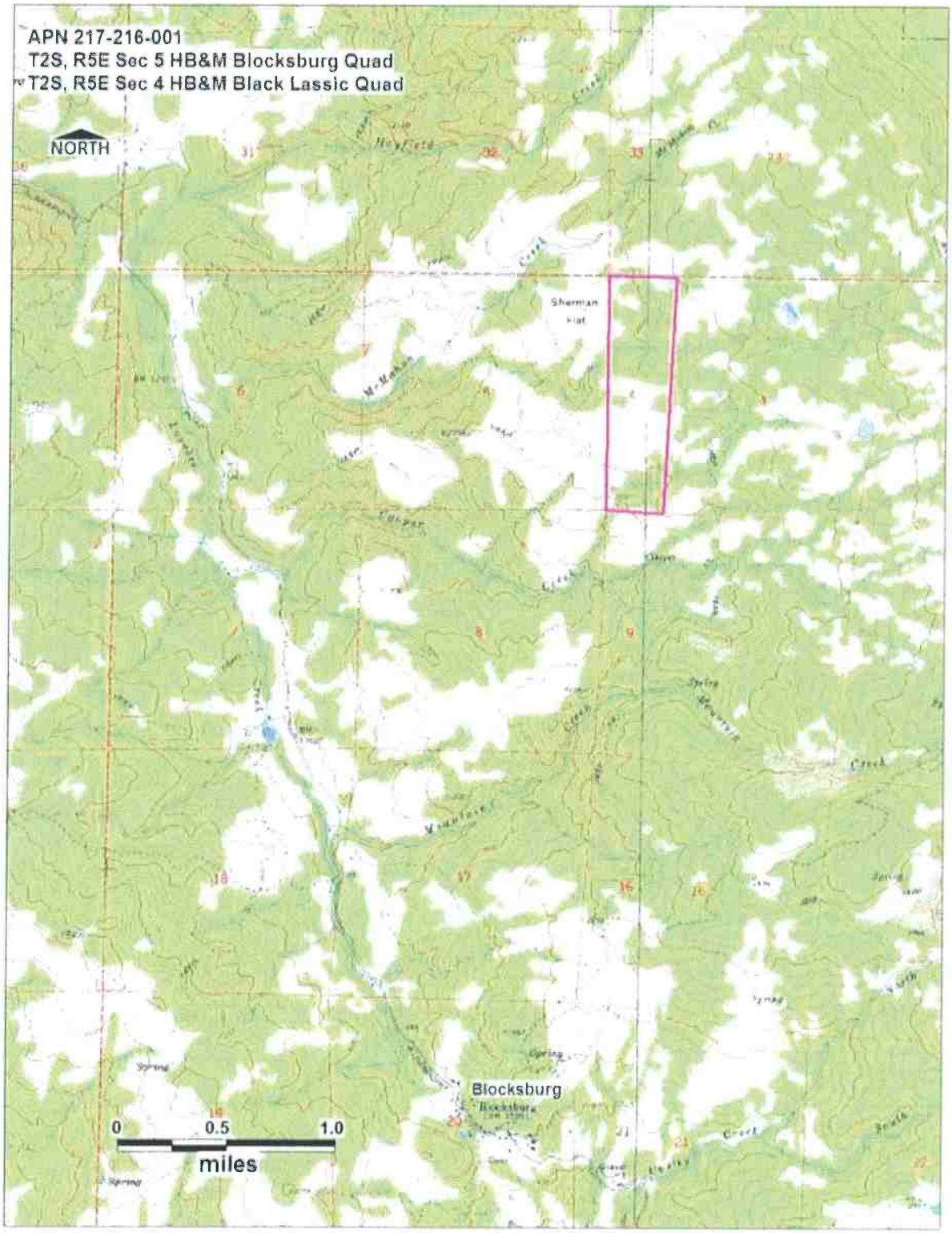
Water Resource Protection Plan
for APN 217-216-001
WDID# 1B161057CHUM

Humboldt County

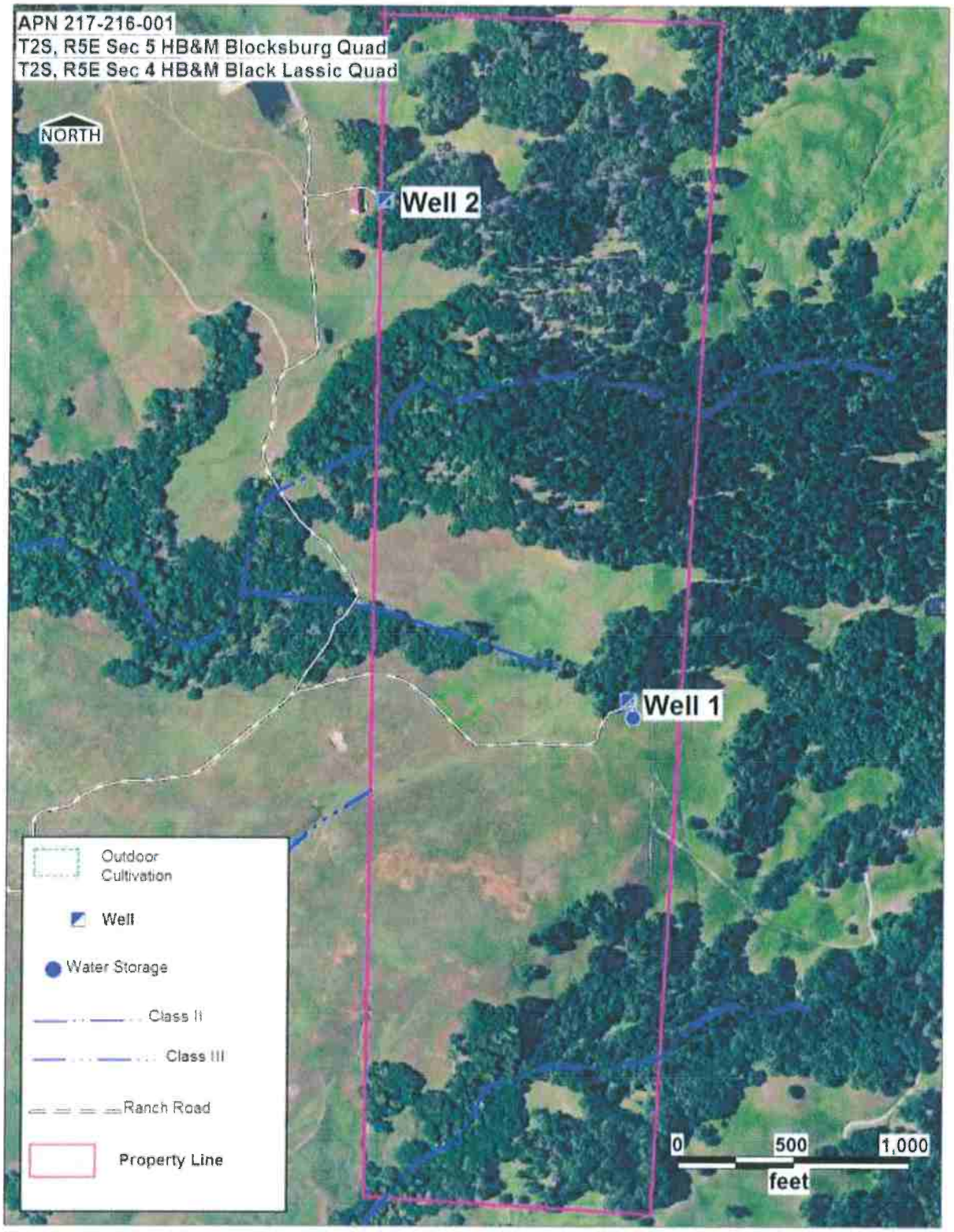
Prepared by:
Natural Resources Management Corporation
1434 3rd Street
Eureka, CA 95501

February 29, 2019

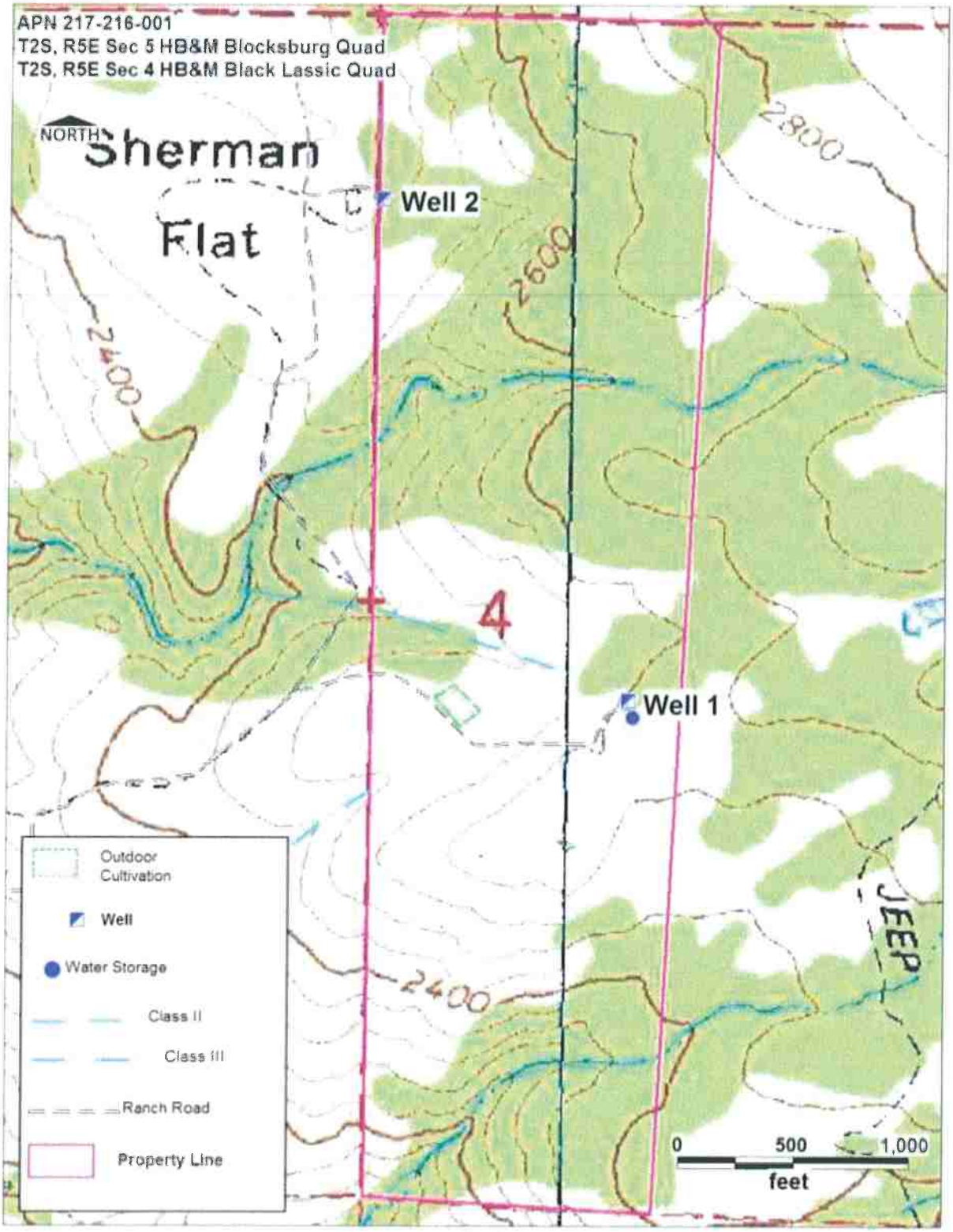
Site Maps for Parcel



Vicinity Map



Site Map, 2016 Ortho Photo


APN 217-216-001
T2S, R5E Sec 5 HB&M Blocksburg Quad
T2S, R5E Sec 4 HB&M Black Lassic Quad
NORTH
Sherman
Flat
Well 2
Well 1
2800
2600
2400
2400
4
JEEP
Outdoor Cultivation
Well
Water Storage
Class II
Class III
Ranch Road
Property Line
0
500
1,000
feet

Site Map

Water Resource Protection Plan

This document serves as the water resource protection plan (WRPP) for site APN 217-216-001 pursuant to Order No. R1-2015-0023. On August 13, 2015, the North Coast Regional Water Quality Control Board (NCRWQCB; Regional Water Board) adopted a General Waiver of Waste Discharge requirements and General Water Quality Certification for Discharges of Waste Resulting from Cannabis Cultivation and Associated Activities or Operations with Similar Environmental Effects in the North Coast Region, Order No. R1-2015-0023. One of the requirements of Order No. R1-2015-0023 is to prepare a Water Resource Protection Plan (WRPP) for all sites that are enrolled under Tier 2 of the order.

Summary

APN 217-216-001 is located in the Blocksburg area of Humboldt County. The property is located in the Larabee Creek watershed between 2000 and 2800 feet in elevation. The property is a mix and grassland, oakwood lands and douglas fir forest. The property is part of the larger Glass Ranch holdings. Historically the land has been used for cattle grazing and timber. The majority of the parcel is currently being used for cattle grazing.

Property lines used in this report are from the Humboldt County GIS layer. They may not be accurate.

There are four watercourses on the property. There are no watercourse crossings located on this property. The site has approximately 16,800 square feet of cannabis cultivation. Plants are full term out door plants grown in pots. The pots were set on naturally flat land, there is no grading at this site. All cultivation areas are outside of the watercourse buffers. No corrective actions are necessary for this site.

Current Conditions

Watercourses

There are four watercourses on the property. In the northern portion of the property there are two class II watercourses that flow west. These two creeks come together off property to the west. A class III watercourse flows east starting near the western property line. A fourth class II flows west through the southern portion of the property. There were no wetland areas in the area surrounding the cultivation site. The remainder of the property was not checked for wetlands.

Roads

There is approximately 2000 feet of road on the property. The majority of the road runs east/ west through open meadow in the middle of the property. The majority of the road is in good condition, with a fair amount of rock on its surface.

Watercourse Crossings

There are no watercourse crossings on this property

Cultivation Areas

There is one cultivation area on the property. It is a 16,800 square foot full term outdoor site. The plants are grown outside in large tubs. The location of the cultivation area is on a flat meadow. No grading was done to prepare the site. The nearest water Couse is a class II creek that is over 150 feet from the cultivation area. Plants are watered with a drip system. Pathways between the plants are vegetated.

General Property Conditions

The general condition of the property is good. There are no spoils or other uncontained waste. No one lives on the property. There are no structures on the property. Restroom facilities are available to workers on an adjacent property.

List of Chemicals Stored Onsite & Information about Use

No fertilizers, chemicals, or fuels are stored onsite. These are stored on a neighboring property in a containment shed and brought onsite only when being used. Soil is amended in the spring with EB Stone chicken manure, gypsum, dolomite, bone meal, neam meal, and crab meal. Compost tea is the main nutrient used through the growing season.

For future compliance, all nutrients, pesticides, herbicides, and fungicides used will be recorded. The product name, amount used and method of application will be recorded each time a product is used. A copy of these records will be kept onsite. Quantities used annually will be reported to the NCRWQCB by March 31st of the following year with the MRP (Appendix C, Monitoring and Reporting Program).

Water Use

For the approximately 16,800 square feet of cannabis 361,520 gallons of water were used during the 2018 growing season.

Water is supplied form a ground water well 2. The well is directly used to irrigate the plants. Well water from well 2 is pumped into the three 2500 gallon storage tanks (one tank is located near well 2 the other two tanks are located near well 1). The water from the tanks is then piped to the grow area through a gravity feed and dripped on to the plants.

Table 1. Estimated amount of water used for irrigation monthly in gallons

Source	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Well	0	0	0	0	15200	59280	79040	79040	79040	49920	0	0

For future compliance, **water meters will be used** to quantify water use for irrigation and storage. A photo of the meter reading will be taken weekly when diverting surface water, monthly if using well, rain water, storage to document water use.

Corrective Actions

There are no corrective actions for this property.

Winter Site Preparation

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

- Soil used in cultivation will be left in pots planted with a cover crop.
- Any bare soil on the fill slopes on the landing will be covered with straw 2 to 3 inches thick and secured with a tackafier.
- Cannabis stems and root balls will be composted or properly disposed of at a green waste facility.
- All nutrients, fuels, and other chemicals will be placed in a secure storage shed
- All cultivation trash and debris will be properly disposed of at a waste disposal facility. Receipts for disposal will be kept.
- Roads will be checked for winter readiness, waterbars installed, adequately rocked

Monitoring

Annual Monitoring

Fall / Winter Monitoring

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

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

Monitoring may be done by the landowner/registrant. Photos will be taken at each monitoring point. Monitoring photos and notes will be kept on-site. The landowner/registrant will submit monitoring forms and photos to NRM or the NCRWQCB.

Growing Season Monitoring

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

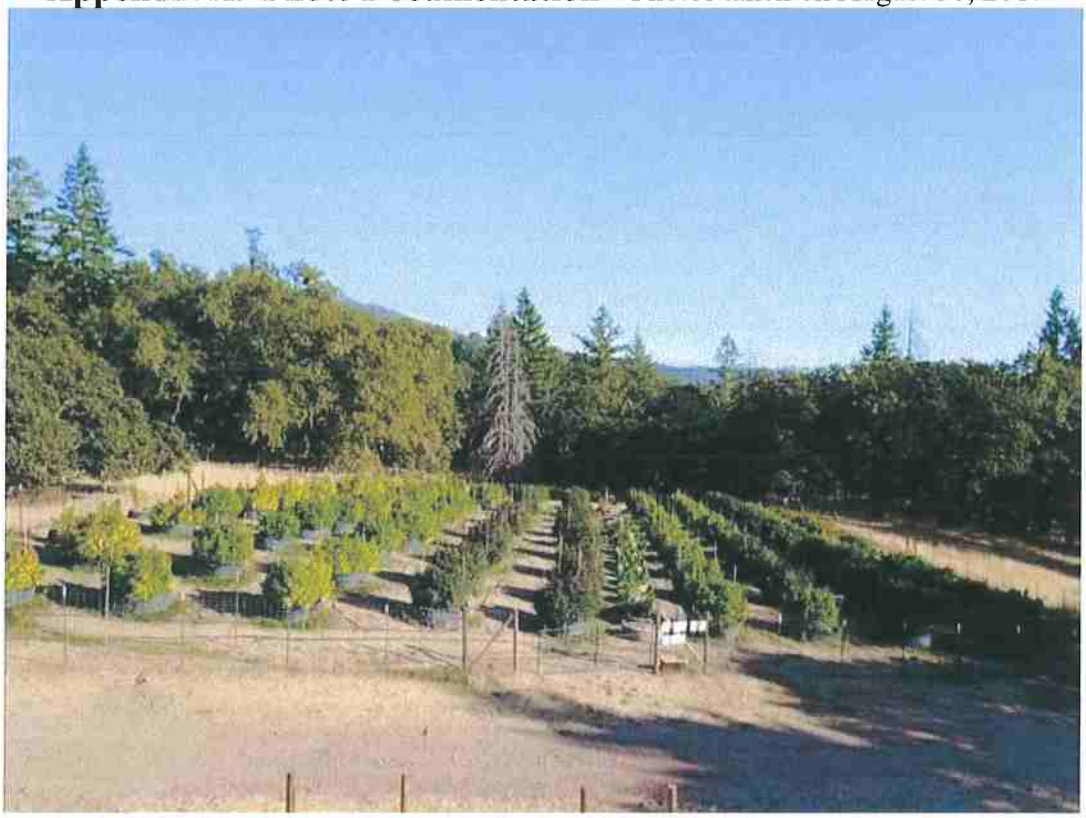
- Tanks, bladders, and water lines to ensure there are no leaks
- Cultivation area during or immediately after watering to ensure irrigation water is infiltrating (not running off)
- Cultivation area to ensure that all fertilizers and other chemicals are properly contained in the storage shed and that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

The landowner/registrant will keep a record of monitoring completion dates and any necessary corrective actions. A copy of this record will also be submitted to NRM.

During the growing season, all fertilizer and irrigation water use will be tracked. The type and amount of fertilizers used and the monthly total of water used for irrigation will be reported to NRM by December 31st of each year.

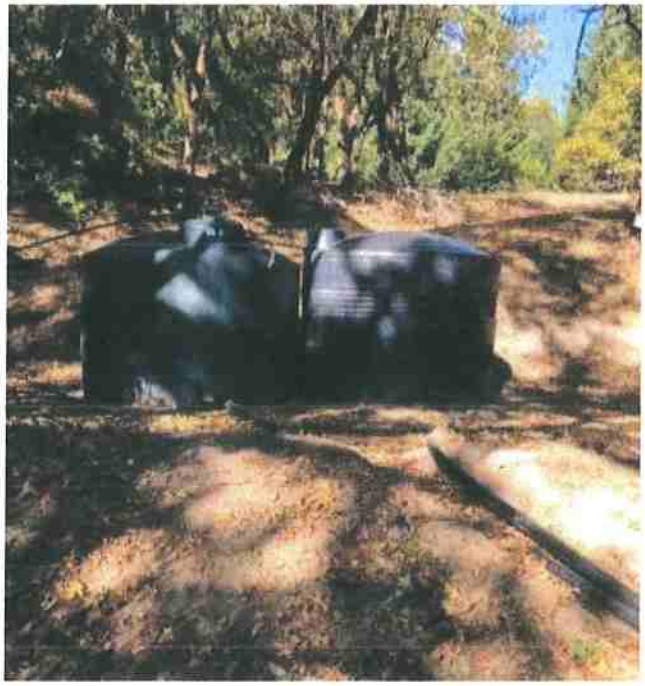
The annual monitoring report will be submitted to the Regional Water Board by March 31st of each year. The report will include the Appendix C reporting form the NCRWQCB Order No. R1-2015-0023.

Appendix A. Photo Documentation – Photos taken on August 30, 2017

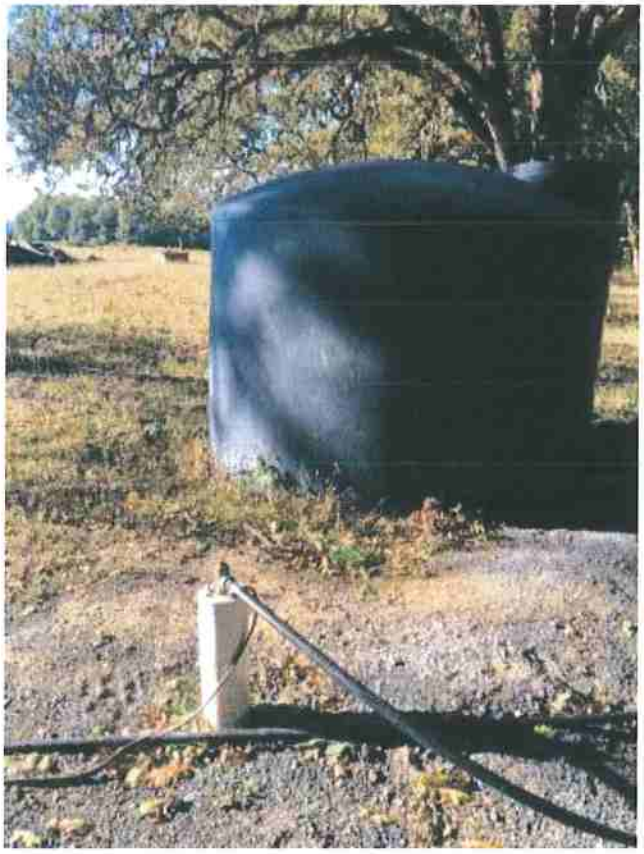


Cultivation site

Cultivation Site



2500 Gallon Holding Tanks by Well 1



Well 2 and 2500 Gallon Holding tank

Appendix B. Associated Standard Conditions

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

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

A. Standard Conditions, Applicable to All Dischargers

1. Site maintenance, erosion control and drainage features

a. Roads shall be maintained as appropriate (with adequate surfacing and drainage features) to avoid developing surface ruts, gullies, or surface erosion that results in sediment delivery to surface waters.

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

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

d. Roads, clearings, fill prisms, and terraced areas (cleared/developed areas with the potential for sediment erosion and transport) shall be maintained so that they are hydrologically disconnected, as feasible, from surface waters, including wetlands, ephemeral, intermittent and perennial streams. Connected roads are road segments that deliver road surface runoff, via the ditch or road surface, to a stream crossing or to a connected drain that occurs within the high delivery potential portion of the active road network. A connected drain is defined as any cross-drain culvert, water bar, rolling dip, or ditch-out that appears to deliver runoff to a defined channel. A drain is considered connected if there is evidence of surface flow connection from the road to a defined channel or if the outlet has eroded a channel that extends from the road to a defined channel (http://www.forestsandfish.com/documents/Road_Mgmt_Survey.pdf).

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

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

2. Stream Crossing Maintenance

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

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

c. Culverts and stream crossings shall allow passage of all life stages of fish on fish-bearing or restorable streams, and allow passage of aquatic organisms on perennial or intermittent streams.

d. Stream crossings shall be maintained so as to prevent or minimize erosion from exposed surfaces adjacent to, and in the channel and on the banks.

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

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

3. Riparian and Wetland Protection and Management

a. For Tier 1 Dischargers, cultivation areas or associated facilities shall not be located within 200 feet of surface waters. While 200 foot buffers are preferred for Tier 2 sites, at minimum, cultivation areas and associated facilities shall not be located or occur within 100 feet of any Class I or II watercourse or within 50 feet of any Class III watercourse or wetlands. The Regional Water Board or its Executive Officer may apply additional or alternative conditions on enrollment, including site-specific riparian buffers and other BMPs beyond those identified in water resource protection plans to ensure water quality protection. Alternative site-specific riparian buffers that are equally protective of water quality may be necessary to accommodate existing permanent structures or other types of structures that cannot be relocated.

b. Buffers shall be maintained at natural slope with native vegetation.

c. Buffers shall be of sufficient width to filter wastes from runoff discharging from production lands and associated facilities to all wetlands, streams, drainage ditches, or other conveyances.

d. Riparian and wetland areas shall be protected in a manner that maintains their essential functions, including temperature and microclimate control, filtration of sediment and other pollutants, nutrient cycling, woody debris recruitment, groundwater recharge, streambank stabilization, and flood peak attenuation and flood water storage.

4. Spoils Management

a. Spoils shall not be stored or placed in or where they can enter any surface water. Spoils are waste earthen or organic materials generated through grading or excavation, or waste plant growth media or soil amendments. Spoils include but are not limited to soils, slash, bark, sawdust, potting soils, rock, and fertilizers.

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

c. Spoils generated through development or maintenance of roads, driveways, earthen fill pads, or other cleared or filled areas shall not be sidecast in any location where they can enter or be transported to surface waters.

5. Water Storage and Use

a. Size and scope of an operation shall be such that the amount of water used shall not adversely impact water quality and/or beneficial uses, including and in consideration with other water use by operations, instream flow requirements and/or needs in the watershed, defined at the scale of a HUC-12 watershed or at a smaller hydrologic watershed as determined necessary by the Regional Water Board Executive Officer.

b. Water conservation measures shall be implemented. Examples include use of rainwater catchment systems or watering plants with a drip irrigation system rather than with a hose or sprinkler system.

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

d. Water is applied using no more than agronomic rates. "Agronomic rates" is defined as the rates of fertilizer and irrigation water that a plant needs to enhance soil productivity and provide the crop or forage growth with needed nutrients for optimum health and growth, without having any excess water or nutrient percolate beyond the root zone.

e. Diversion and/or storage of water from a stream should be conducted pursuant to a valid water right and in compliance with reporting requirements under Water Code section 5101.

f. Water storage features, such as ponds, tanks, and other vessels shall be selected, sited, designed, and maintained so as to insure integrity and to prevent release into waters of the state in the event of a containment failure.

6. Irrigation Runoff

Implementing water conservation measures, irrigating at agronomic rates, applying fertilizers at agronomic rates and applying chemicals according to the label specifications, and maintaining stable soil and growth media should serve to minimize the amount of runoff and the concentration of chemicals in that water.

In the event that irrigation runoff occurs, measures shall be in place to treat/control/contain the runoff to minimize the pollutant loads in the discharge. Irrigation runoff shall be managed so that any entrained constituents, such as fertilizers, fine sediment and suspended organic particles, and other oxygen consuming materials are not discharged to nearby watercourses. Management practices include, but are not limited to, modifications to irrigation systems that reuse tailwater by constructing offstream retention basins, and active (pumping) and or passive (gravity) tailwater recapture/redistribution systems. Care shall be taken to ensure that irrigation tailwater is not discharged towards or impounded over unstable features or landslides.

7. Fertilizers and Soil Amendments

a. Fertilizers, potting soils, compost, and other soils and soil amendments shall be stored in locations and in a manner in which they cannot enter or be transported into surface waters and such that nutrients or other pollutants cannot be leached into groundwater.

b. Fertilizers and soil amendments shall be applied and used per packaging instructions and/or at proper agronomic rates (see footnote on previous page).

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

8. Pesticides/Herbicides

At the present time, there are no pesticides or herbicides registered specifically for use directly on cannabis and the use of pesticides on cannabis plants has not been reviewed for safety, human health effects, or environmental impacts. Under California law, the only pesticide products not illegal to use on cannabis are those that contain an active ingredient that is exempt from residue tolerance requirements and either registered and labeled for a broad enough use to include use on cannabis or exempt from registration requirements as a minimum risk pesticide under FIFRA section 25(b) and California Code of Regulations, title 3, section 6147. For the purpose of compliance with conditions of this Order, any uses of pesticide products shall be consistent with product labelling and any products on the site shall be placed, used, and stored in a manner that ensures that they will not enter or be released into surface or ground waters.

9. Petroleum products and other chemicals

a. Petroleum products and other liquid chemicals, including but not limited to diesel, biodiesel, gasoline, and oils shall be stored so as to prevent their spillage, discharge, or seepage into receiving waters. Storage tanks and containers must be of suitable material and construction to be compatible with the substance(s) stored and conditions of storage such as pressure and temperature.

b. Above ground storage tanks and containers shall be provided with a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation.

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

d. Discharger(s) shall implement spill prevention, control, and countermeasures (SPCC) and have appropriate cleanup materials available onsite.

e. Underground storage tanks 110 gallons and larger shall be registered with the appropriate County Health Department and comply with State and local requirements for leak detection, spill overflow, corrosion protection, and insurance coverage.

10. Cultivation-related wastes

Cultivation-related wastes including, but not limited to, empty soil/soil amendment/ fertilizer/pesticide bags and containers, empty plant pots or containers, dead or harvested plant waste, and spent growth medium shall, for as long as they remain on the site, be stored at locations where they will not enter or be blown into surface waters, and in a manner that ensures that residues and pollutants within those materials do not migrate or leach into surface water or groundwaters. Plant waste may also be composted, subject to the same restrictions cited for cultivation-related waste storage.

11. Refuse and human waste

a. Disposal of domestic sewage shall meet applicable County health standards, local agency management plans and ordinances, and/or the Regional Water Board's Onsite Wastewater Treatment System (OWTS) policy, and shall not represent a threat to surface water or groundwater.

b. Refuse and garbage shall be stored in a location and manner that prevents its discharge to receiving waters and prevents any leachate or contact water from entering or percolating to receiving waters.

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

12. Remediation/Cleanup/Restoration

Remediation/cleanup/restoration activities may include, but are not limited to, removal of fill from watercourses, stream restoration, riparian vegetation planting and maintenance, soil stabilization, erosion control, upgrading stream crossings, road outsloping and rolling dip installation where safe and suitable, installing ditch relief culverts and overside drains, removing berms, stabilizing unstable areas, reshaping cutbanks, and rocking native-surfaced roads. Restoration and cleanup conditions and provisions generally apply to Tier 3 sites, however owners/operators of Tier 1 or 2 sites may identify or propose water resource improvement or enhancement projects such as stream restoration or riparian planting with native vegetation and, for such projects, these conditions apply similarly.

ATTACHMENT 6

REFERRAL AGENCY COMMENTS AND RECOMMENDATIONS

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

Referral Agency	Response	Recommendation	Location
Building Inspection Division	✓	Comments	On file
Division Environmental Health	✓	Approved with conditions	On file
Public Works, Land Use Division	✓	Approved with conditions	On file
Northwest Information Center		No Response	
Bear River Band THPO	✓	Comments	On file and confidential
Humboldt County Sheriff		No Response	
California Department of Fish & Wildlife		No Response	
CalFire	✓	Comments	On file
Regional Water Quality Control Board		No Response	
North Coast Unified AQMD		No Response	
Southern Humboldt Joint School District		No Response	
Humboldt County Agricultural Commissioner		No response	

Attachment 7

CEQA Comments

Giannini, Trip

From: O'connell, Gregory@Wildlife <Gregory.OConnell@Wildlife.ca.gov>
Sent: Tuesday, November 23, 2021 1:54 PM
To: Johnston, Desmond; Prairie Moore (pmoore@nrmcorp.com); Claire Brown
Cc: Van Hattem, Michael@Wildlife; Garwood, Rebecca@Wildlife
Subject: Blocksburg Family Farms MND Questions

Hi Des, Prairie, and Claire,

I'm reviewing the recirculated Mitigated Negative Declaration (MND) for the Blocksburg Family Farms Project, SCH# 2021110058. A previous version of the Project was circulated as SCH# 2021040294 earlier this year. I have some follow-up questions while reviewing the MND.

1. Clarification of Sensitive Natural Community Impacts. The MND states approximately 1.065 acres of *Danthonia californica* prairie (*Festuca idahoensis - Danthonia californica Herbaceous Alliance* [S3 = vulnerable]) will be impacted by the Project (page 108). The MND further states impacts to these patches of native grasses within larger invasive-dominant grasslands would not be significant in a CEQA context. I don't recall this disclosure in the first MND, and it would have been helpful to preconsult on this prior to the release of the current MND. An alternative perspective, not presented in the MND, is that these relatively small areas of native grasses are all that remains of what once was a native grassland. An argument could be also be made that the proposed 1+ acre impact to *Danthonia californica* prairie is potentially significant in a CEQA context.
    a. Is the proposed pond area (with the highest density of native grasses) included in the 1.065 acres proposed for impact?
    b. Can mitigation measure "Biological 6 - Sensitive Botanical Species" be modified (without recirculating; CEQA 15073.5(c)) to include native grassland restoration/enhancement to offset the impacts to *Danthonia californica* prairie? I'm hoping we can discuss a reasonable, feasible strategy.
2. Water sources. The MND states all water for cultivation irrigation and domestic use will be supplied from the ground water well, the rainwater catchment tank, and rainwater catchment pond (page 172). We spoke back in May 2021 about concerns of potential well-use impacts on the very rare wetland type between the cultivation and the well. The addition of the 2.2 million gallon rainwater catchment pond lessens my previous concerns about well use, so this is a welcome Project revision.
    a. Can the County add a condition of approval that the Project not proceed past Phase 1 of development (Page 13 and 30) until after the rainwater catchment pond is built, and the additional 1 million gallon rainwater storage be completed within two years of full cultivation buildout? It appears this sequencing is already part of the Project description, but I'd like to ensure these rainwater storage amounts are required and not optional.

Thanks for considering these questions. I can be available for a call tomorrow or the following week for further discussion/clarifications.

Greg O'Connell
Environmental Scientist
Coastal Conservation Planning
California Department of Fish and Wildlife
619 Second Street
Eureka, CA 95501
Gregory.OConnell@Wildlife.ca.gov

December 2, 2021

Desmond Johnston, Senior Planner
County of Humboldt
3015 H Street
Eureka, CA 95501
Email: djohnston@co.humboldt.ca.us

Re: Initial Study/Mitigated Negative Declaration (IS/MND) for Blocksburg Family Farms, LLC (SCH No. 2021110058)

Dear Mr. Johnston:

Thank you for providing the California Department of Cannabis Control (DCC) the opportunity to comment on the Initial Study/Mitigated Negative Declaration (IS/MND) prepared by the County of Humboldt for the proposed Blocksburg Family Farms project (Proposed Project).

DCC has jurisdiction over the issuance of licenses to cultivate, propagate, and process commercial cannabis in California. DCC issues licenses to outdoor, indoor, and mixed-light cannabis cultivators, cannabis nurseries and cannabis processor facilities, where the local jurisdiction authorizes these activities. (Bus. & Prof. Code, § 26012(a).) All commercial cannabis businesses within the California require a license from DCC. For more information pertaining to commercial cannabis business license requirements, including DCC regulations, please visit: https://cannabis.ca.gov/resources/rulemaking/.

DCC expects to be a Responsible Agency for this project under the California Environmental Quality Act (CEQA) because the project would need to obtain one or more annual cultivation licenses from DCC. In order to ensure that the IS/MND is sufficient for DCC's needs at that time, DCC requests that a copy of the IS/MND, revised to respond to the comments provided in this letter, and a signed Notice of Determination be provided to the applicant, so the applicant can include them with the application package it submits to DCC. This should apply not only to this Proposed Project, but to all future CEQA documents related to cannabis cultivation applications in Humboldt County.

DCC offers the following comments concerning the IS/MND.

General Comments (GCs)

GC 1: Relationship to Previous CEQA Documents

In April 2021, Humboldt County prepared and circulated an IS/MND for the Blocksburg Family Farms project (SCH No. 2021040294). That IS/MND intended to analyze the environmental impacts on an initial project located at the Proposed Project site. The California Department of Food and Agriculture (CDFA) (DCC's predecessor agency for California cannabis cultivation licensing) submitted comments to that IS/MND on May 11, 2021.

The document that is the subject of this comment letter (SCH No. 2021110058), as submitted to the State Clearinghouse on November 3, 2021, is identified as being proposed for the same parcel (APN 217-471-001) and references the same Record Number (PLN-12265-CUP). Without additional information, DCC cannot determine whether the document is intended to be a recirculated IS/MND, an addendum to the original IS/MND, a subsequent or supplemental IS/MND, or another type of CEQA document. (*See* CEQA Guidelines §§ 15073.5, 15162, 15164.) Instead, the November IS/MND appears on its face as a new standalone IS/MND, filed under a different State Clearinghouse number from the original IS/MND. The document should clarify how this document relates to the previous IS/MND, as well as whether the original IS/MND was adopted by the County, and the current status of the project that was the subject of the initial IS/MND.

GC 2: Establishment of DCC and New Emergency Regulations

The IS/MND acknowledges that CDFA CalCannabis is responsible for licensing, regulation, and enforcement of commercial cultivation activities, as defined in the Medicinal and Adult Use Cannabis Regulation and Safety Act (MAUCRSA), and that the Proposed Project requires a cultivation license from CalCannabis. The IS/MND identifies the protections for environmental resources provided by CalCannabis' cultivation regulations, similar to the discussion provided with regard to County regulations. In July 2021, CalCannabis transitioned to DCC, and in September 2021, DCC issued new emergency regulations related to cannabis cultivation (Bus. & Prof. Code, § 26102(a)). The IS/MND would be strengthened by referencing DCC and the new state regulations for each applicable topic:

- Aesthetics (*See* 4 California Code of Regulations §§16304(a)(6); 16304(a)(7).)
- Air Quality and Greenhouse Gas Emissions (*See* §§ 15020(f); 16304(e); 16305; 16306.)
- Biological Resources (*See* §§ 15006(i); 15011(a)(11); 16304(a-c); 16304(g).)
- Cultural Resources (*See* § 16304(d).)
- Energy (*See* §§ 15006(i)(6); 15011(a)(5); 15020(f); 16305; 16306.)
- Hazards and Hazardous Materials (*See* §§ 15006(i)(5)(c); 15011(a)(4); 15011(a)(12) 16304(f); 16307; 16310.)
- Hydrology and Water Quality (*See* §§ 15006(i); 15011(a)(3); 15011(a)(7); 15011(a)(11); 16216; 16304(a); 16304(b); 16307; 16310.)
- Noise (*See* §§ 16304(e); 16306.)

- Public Services (*See* §§15011(a)(10); 15036; 15042.)
- Utilities and Service Systems (*See* §§ 16309; 17223.)
- Wildfire (*See* § 15011(a)(10).)
- Cumulative Impacts (related to the above topics)

GC 3: Site-Specific Supporting Documentation

The IS/MND discusses several project-specific plans, studies, and project-specific data, including a Site Plan, Nitrogen Management Plan, Site Management Plan, Biological Resources Reports, Grading/Erosion Control Plan, Lake and Streambed Alteration Agreement, Security Plan, Environmentally Sensitive Area Action Plan, and Hazardous Materials Business Plan (if required). Some of these plans are attached to the IS/MND and the discussion of the plans is cross-referenced to the attachments provided. In addition, to ensure that DCC has all supporting documentation for the IS/MND, DCC requests that the County advise applicants to provide copies of all project-specific plans and supporting documentation with their state application package for an annual cultivation license to DCC.

GC 4: Evaluation of Cumulative Impacts

It is important for CEQA analyses to consider the cumulative impacts of cannabis cultivation in Humboldt County. Of particular importance are topics for which the impacts of individual projects may be less than significant, but where individual projects may make a considerable contribution to a significant cumulative impact. These topics include, but are not limited to:

- cumulative impacts from groundwater diversions on the health of the underlying aquifer, including impacts on other users and impacts on stream-related resources connected to the aquifer;
- cumulative impacts related to transportation; and
- cumulative impacts related to air quality and objectionable odors.

The IS/MND would be improved by acknowledging and analyzing the potential for cumulative impacts resulting from the Proposed Project coupled with other cannabis cultivation projects being processed by the County, and any other reasonably foreseeable projects in Humboldt County that could contribute to cumulative impacts similar to those of the Proposed Project.

Specific Comments and Recommendations

In addition to the general comments provide above, DCC provides the following specific comments regarding the analysis in the IS/MND.

Comment No.	Section Nos.	Page No(s).	Resource Topic(s)	IS/MND Text	DCC Comments and Recommendations
1	4.1(d)	43	Aesthetics	Therefore, while the project will add lighting to the area, the additional lighting will be less than significant. The project lighting will have no impact on day or nighttime views in the area.	The IS/MND would be strengthened if the discussion of lighting impacts clearly indicated the significance of the impact as either “less than significant” or “no impact.”
2	4.4	59	Biological Resources	Discussion and conclusions for Biological Resources have been adapted from: Revised Biological Report, Humboldt County APN 217-215-001 [new APN = 217-471-002]; […]	The IS/MND would be improved if it provided an explanation for the notation regarding a new APN, as the entire document, aside from this reference, uses 217-215-001 as the APN.
3	4.4.2 Discussion of Significance – Sensitive Wildlife	87	Biological Resources	According to one study of 18 nests in New Jersey,	The IS/MND describes the potential for occurrence of Cooper’s hawks in the project area. The last sentence of the final paragraph of the discussion is incomplete. The IS/MND would be improved if it contained the missing information.
4	4.4.4 Discussion of Significance – Wetland and Riparian; Determination – Wetland	124	Biological Resources	As described in Mitigation Measure-Biological 6 (section 4.4.3, Effect on Sensitive Botanical Species), an additional 50-feet of riparian setback is to be added	The IS/MND would be improved if the significance conclusions for wetland and riparian impacts in the checklist (page 59) and in the impact analysis (page 124) were consistent. The checklist indicates that Impact 4.4(c) would be less than significant; however, the impact analysis identifies

Comment No.	Section Nos.	Page No(s).	Resource Topic(s)	IS/MND Text	DCC Comments and Recommendations
	and Riparian Areas			to the standard 100-foot setback (SWRCB, 2019) around the seasonal depressional wetland in the southeast portion of the Study Area (Figure 12). This buffer increase is recommended as a site specific mitigation to better protect the documented sensitive natural community and special status plant species (*Lasthenia glaberrima* Herbaceous Alliance, and *Navarretia leucocephala* ssp. *bakeri*) from potential project impacts.	Mitigation Measure Biological 6 to "better protect the documented sensitive natural community and special status plant species … from potential project impacts."
5	4.4(c)	125	Biological Resources	With all development set back from sensitive riparian areas to the level at or beyond mandated standards (Mitigation Measure - Bio 6), no significant impacts on wetlands are expected.	As described in Specific Comment 4, the IS/MND would be improved if the significance conclusions for wetland and riparian impacts in the checklist (page 59) and in the impact analysis (page 125) were consistent.
6	4.10 – Existing Conditions	167	Hydrology and Water Quality	According to the biological report, there are multiple channelized inflows	The IS/MND describes the existing conditions of seasonal and perennial wetlands in the project area. The last sentence of the first paragraph of the

Comment No.	Section Nos.	Page No(s).	Resource Topic(s)	IS/MND Text	DCC Comments and Recommendations
				and outflows associate with both the seasonal wetlands and perennial wetland as well as (Appendix B).	discussion is incomplete. The IS/MND would be improved if it contained the missing information.
7	4.18 – Native American Consultation	210	Tribal Cultural Resources	On August 2, 2017, consultation letters were sent all Native American groups listed by the NAHC.	The IS/MND would be improved if it included a list of which Native American groups were identified by the NAHC and contacted.
8	4.21(b)	227	Mandatory Findings of Significance	N/A (General Comment)	The IS/MND should identify the other cannabis growing operations that exist or have been proposed in the vicinity of the Proposed Project, and provide an analysis of whether the Proposed Project would make a considerable contribution to any cumulative impacts from these other projects with regards to other resource topics other than traffic. (*See* General Comment 4.)

Conclusion

DCC appreciates the opportunity to provide comments on the IS/MND for the Proposed Project. If you have any questions about our comments or wish to discuss them, please contact Kevin Ponce, Senior Environmental Scientist Supervisor, at (916) 247-1659 or via e-mail at Kevin.Ponce@cannabis.ca.gov.

Sincerely,

Lindsay Rains
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March 2, 2022

VIA EMAIL ONLY (PLEASE CONFIRM RECEIPT

County of Humboldt
Humboldt County Planning Commission
Hon. Alan Bongio, Chair
Planningclerk@co.humboldt.ca.us

Humboldt County Planning Department
Attn: John Ford, Planning Director
Desmond Johnston, Supervising Planner
Email: jford@co.humboldt.ca.us;
djohnston@co.humboldt.ca.us

Re: **Comments Concerning Blocksburg Family Farm, LLC Conditional Use Permits for Approximately Six Acres of Commercial Cannabis Propagation, Cultivation and Processing** (PLN-12265-CUP; APN: 217-471-001)

Dear Chairman Bongio, Honorable Members of the Humboldt County Planning Commission, Director Ford, and Mr. Johnston:

On behalf of Citizens for a Sustainable Humboldt ("CSH") and the Northcoast Environmental Center ("NEC"), we are writing to comment specifically on the above-referenced large-scale commercial cannabis project and more generally address the chronic deficiencies in the analysis of project impacts that characterize the regulatory program for cannabis enacted and implemented by the County of Humboldt ("County"). By providing these supported and substantiated comments concerning this Project in particular, and the requirements for adequate investigation of project impacts in general, CSH and NEC intend to meaningfully participate in the ongoing dialogue concerning important issues related to the industries' unmitigated direct, indirect, and cumulative environmental impacts. The comments below also supplement those presented in November 2021 by Mr. Barry Hecht, a certified hydrogeologist with Balance Hydrologics, concerning tools available to scientifically evaluate and transparently disclose the potential for groundwater hydrologic connectivity.[1]

After reviewing the IS/MND, the technical appendices, the July 8, 2021, letter from geologist David Lindberg addressed below, and the analysis in the staff report, CSH and NEC conclude that the Planning Commission should not rely upon this level of insufficient investigation and explanation as evidence that a groundwater well for a proposed industrial-

[1] *See* Exh. A to CSH and NEC comments concerning investigation of hydrologic connectivity, dated 11/03/21 – Hecht, Review of Hydrogeologic Connection Investigation Memorandum Prepared for Platinum King Commercial Cannabis Project (Humboldt County, PLN-2018-15196), incorporated herein by reference.

scale commercial cannabis project is not hydrologically connected to surface waters and that the Project's well can produce sufficient water for the Project, in perpetuity. This deficient analysis does not satisfy the requirements of the California Environmental Quality Act ("CEQA"). Accordingly, the IS/MND must be substantially revised, if the identified potentially significant impacts cannot be dispositively ruled out based on a scientific and factually supported analysis, then an EIR must be prepared for this Project.

I. Introduction: Substantially Expanded Operation on Greenfield Site Requires Robust Environmental Impact Analysis and Adherence to County Standards.

The Project involves substantially expanded large-scale cultivation and processing of cannabis on an isolated "greenfield" property in rural Humboldt County. The Project is being processed under Ordinance 1.0 (the CMMLUO). Due to the Project's unusually large size and its associated increased potential to cause significant impacts in this sensitive setting, CSH and NEC determined it was appropriate to review the analysis and weigh in with comments.

The Project site is previously undeveloped and has limited road access. The applicant seeks a Conditional Use Permit ("CUP") for 6.39 acres of cultivation and processing facilities. Notably, at this size, this would be one of the larges projects ever proposed under the CMMLUO. Cultivation would occur both outdoors (3 acres) and in framed rigid greenhouses utilizing light deprivation (3 acres). Operations would occur year-round, with a maximum of two cultivation cycles annually for the light deprivation half of the operation.

In the initial phase (Phase 1), the Project will cultivate 2 acres relying entirely on wells and generators. Only later will the Project shift to reliance on rainwater catchment and renewable energy sources. Adherence to the Operations Plan would require improvements to be in place before progressing to later development phases. The Project will initially rely on small-scale cultivation systems to scale up to an industrial-size operation. For example, gasoline used to power generators will be stored in 5-gallon containers that employees will refill repeatedly, as need.

Because of the Project's potential to cause unanalyzed significant direct, indirect, and cumulative impacts, CSH and NEC urge the Planning Commission to direct staff and the Project applicant to substantially revise the impact analysis before it considers this Project for approval.

II. Discussion: The Project Has the Potential to Cause Significant Impacts Related to Groundwater Use, Wildfire Risks, and Biological and Aquatic Resources.

A. CEQA's Provisions Militate in Favor of Preparing an EIR

CEQA contains a strong presumption in favor of requiring a lead agency to prepare an EIR. This presumption is reflected in the "fair argument" standard. Under that standard, a lead agency must prepare an EIR whenever substantial evidence in the whole record before the

agency supports a fair argument that a project may have a significant effect on the environment.[2] In contrast,

> "CEQA excuses the preparation of an EIR and allows the use of a negative declaration when an initial study shows that there is no substantial evidence that the project may have a significant effect on the environment." [Citations.] In certain situations where a straightforward negative declaration is not appropriate, the agency may permit the use of a mitigated negative declaration. [Citations.][3]

A mitigated negative declaration may be prepared instead of an EIR only when, after preparing an initial study, a lead agency determines that a project may have a significant effect on the environment, but:

> (1) revisions in the project plans or proposals made by, or agreed to by, the applicant before the proposed negative declaration and initial study are released for public review *would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur*, and (2) there is *no substantial evidence* in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment.[4]

Courts have held that, "[i]f no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR."[5] The fair argument standard creates a "low threshold" favoring environmental review through an EIR, rather than through issuance of a negative declaration or notices of exemption from CEQA.[6] An agency's decision not to require an EIR can be upheld only when there is no credible evidence

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[2] Pub. Res. Code § 21082.2; CEQA Guidelines § 15064(f), (h); Laurel Heights Improvement Assn. v. Regents of University of California (1993) 6 Cal.4th 1112, 1123 (*Laurel Heights II*); *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal. 3d 68, 75, 82; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-151; *Quail Botanical Gardens Foundation, Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1601-1602.

[3] *Inyo Citizens for Better Planning v. Board of Supervisors* (2009) 180 Cal.App.4th 1, 6-7 (emphasis added), quoting *San Lorenzo Valley Community Advocates for Responsible Education v. San Lorenzo Valley Unified School Dist.* (2006) 139 Cal.App.4th 1356, 1372-1374.

[4] Pub. Resources Code, § 21064.5, emphasis added.

[5] See, e.g., *Communities For A Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 319-320 (*CBE v. SCAQMD*), citing *No Oil, supra*, 13 Cal.3d at p. 75 and *Brentwood Assn. for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal.App.3d 491, 504-505.

[6] *Citizens Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754.

to the contrary.[7] Substantial evidence can be provided by technical experts or members of the public.[8]

With respect to the Project at issue here, the IS/MND, as currently drafted, does not satisfy the basic purposes and requirements of CEQA. Specifically, among other problems with the analysis, the IS/MND does not adequately analyze the Project's potentially significant impacts and provide substantial evidence to conclude that Project impacts will be avoided or mitigated to less-than-significant levels. The public cannot meaningfully evaluate and comment on the Project and its potentially significant impacts without this and other missing basic information (e.g., dry season well pump tests and a description of access road pinch points). In addition, because the IS/MND lacks essential information regarding the Project's potentially significant impacts, there is no evidence to support the necessary conclusion that the Project will "clearly" have a less-than-significant impact on the environment.

An EIR may be appropriate here, given that this large-scale commercial project (involving 6.39 acres of cultivation, up to twenty-five (25) employees, and approximately 3,157,826 gallons of water annually) located on a currently undeveloped "greenfield" site in a remote area with limited access, sensitive species, and potentially uncertain water resources.

B. New Cultivation Causes New Impacts.

The Project will include six acres of cultivation, a substantial expansion over the purported 16,800 square feet of existing cultivation area.

> The project will add four (4) fully enclosed ancillary propagation greenhouses that measure 100-feet by 20-feet (8,000 sq. ft) to support the addition of six cultivation acres to the parcel. These will be built in stages with two to four (2-4) propagation greenhouses constructed during Phase I and the remainder (0-2) built during Phase II.[9]

This additional cultivation area will result in a higher water demand than the existing cultivation, as well as other increased impacts.

The narrative advanced repeatedly by industry proponents at past Planning Commission meetings is that the County should not make it more difficult for existing unpermitted cultivators to transition to legal operations, and that concerns about environmental impacts should not result in "moving the goalposts." These arguments do not apply, however, to projects comprised primarily of new cultivation area. According to the February 2022 Watershed Map prepared for this Project, the majority of cannabis projects approved in the

[7] *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th, 1307, 1318.

[8] CEQA Guidelines § 15063(a)(3); *Gabric v. City of Rancho Palos Verdes* (1977) 73 Cal.App.3d 183, 199.

[9] *See* IS/MND, p. 15.

County are for new cultivation operations, not existing operations. For new and expanded operations, the externalities of the business ventures should be internalized through regulation, not forced upon their neighbors and the natural environment.

With this Project, the substantial increase in cultivation square footage will ultimately require approximately 25 employees to operate. The IS/MND assumes these employees would be transported to and from the Project site by two vans circulating to each employee's home.[10] CSH and NEC doubt whether this transportation plan is feasible. Will employees be willing to potentially commute several hours per day via vanpool (likely involving a long, circuitous route)? If not where will the employees travel from? The IS/MND simply assumes sufficient employees will be shuttled in from the nearby community, but it does not address the potential logistical problems with this plan. For example, this transportation plan, involving use a "vanpool" for employees, could leave employees on site with little or no ability to evacuate, if necessary, in the event of wildfire or other emergency on the Project site.

When describing parking areas that the Project will utilize, the IS/MND states "The project will also gravel and delineate a minimum of five (5) standard parking spaces on the west face of the proposed Multi-Use Building (approximately 900 sq. ft.)."[11] This aspect of the Project should be revised to accurately describe the amount of parking area that will be created adjacent to the Multi-Use Building.

The proposed Conditions of Approval do not appear to restrict Project phases from proceeding until renewable energy facilities are developed. Please ensure that all conditions precedent are required to be satisfied before the Project scales up to over 6 acres of cultivation area.

C. The Project's Use of Groundwater May Cause Significant Impacts to Any Hydrologically Connected Surface Water Features

The ISMND does not contain any assurance that the Project's intensive use of groundwater will not cause significant impacts to watershed and surface water hydrology. Reliance on wells and pumping groundwater does not eliminate the potential for significant effects to water supply. For in this area, with limited alluvial deposits, most groundwater either drains to or is otherwise hydrologically connected to surface water features (as explained further below).

According to the most recent comprehensive update to Bulletin 118, prepared by the Department of Water Resources ("DWR"):

[10] *See* IS/MND, p. 26.

[11] *See* IS/MND, p. 17.

> Groundwater development in the inland coastal valleys north of the divide between the Russian and Eel Rivers is generally of limited extent. Most problems stemming from reliance on groundwater in these areas is a lack of alluvial aquifer storage capacity. Many groundwater wells rely on hydrologic connection to the rivers and streams of the valleys.[12]

According to the thorough report on groundwater resources in the Eureka area prepared by the United States Geological Survey ("USGS") in 1959, the fractured Franciscan Sandstone formation underlying much of the Project site (below the landslide deposits) is likely to bear relatively little groundwater.[13] Indeed,

> The oldest rocks exposed [within the Eureka area] are undifferentiated sedimentary and metamorphic rocks of the Franciscan and Yager formations of Jurassic and Cretaceous age. These rocks crop out in the hills and mountains along the east and south edges of the area and underlie most of the mountainous drainage area. However, they do not yield appreciable amounts of water to wells.[14]

The USGS further found what relatively little groundwater there is to be found in Franciscan formations "occurs along fault zones, in landslide debris, and in joints" and that this water is "discharged in springs or through seepage zones."[15] This finding, while admittedly dated, constitutes substantial evidence that the groundwater the Project will depend upon is hydrologically connected to surface waters and that extracting this groundwater may reduce the discharge of groundwater underlying the Project well site to nearby "springs and seepage zones." The geology of the area has not changed appreciably since the report was written in 1959. Further, given increased water demand, prolonged droughts, and the effects of climate change, groundwater availability in these zones cannot possibly have improved.

The above information undermines the unsupported assertions in the IS/MND that 1) the Project's well can sustainably pump up to 3,157,826 gallons a year without depleting groundwater resources and without affecting surface waters such as tributary streams and wetlands and 2) the Project will have no significant impact on groundwater supplies.[16]

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[12] DWR's Bulletin 118 Update (2003), p. 123, available at: https://cawaterlibrary.net/wp-content/uploads/2003/10/Bulletin_118_Update_2003.pdf, accessed Sept. 9, 2020.

[13] *See generally* USGS (prepared in cooperation with the California Department of Water Resources), Water-Supply Paper 1470, Geology and Ground-Water Features of the Eureka Area Humboldt County, California (1959), pp. 1, 3-4, 7, 11-12, available at: https://pubs.usgs.gov/wsp/1470/report.pdf, accessed 10/01/20.

[14] *See id.* at p. 12; *see also id.* at p. 13 [Table 1, stating Franciscan Sandstone of the Jurassic age is "Consolidated; not tapped by wells, probably contains *some* water in fractures and in deeply weathered rocks," emphasis added].

[15] *See* USGS Water Supply Paper 1470, *supra*, p. 14.

[16] *See* Revised IS/MND, pp. 196-198.

Reliance on groundwater does not eliminate the potential for significant effects to water supply. Furthermore, to the extent the Project's use of limited available groundwater depletes or adversely affects the quantity and quality of surface water wetlands, streams, and tributaries (e.g., to adjacent headwaters to McMahon Creek and to the nearby tributary to Cooper Creek), the use of Project wells may also cause significant impacts to biological resources (e.g., fish, birds, and other wildlife) that depend upon those impacted surface waters.[17]

The applicant and County can use available modelling tools and field techniques to determine or estimate whether and to what degree the projected groundwater pumping from Project well can potentially impact surface waters.[18] For example, USGS Circular 1376 addresses situations where groundwater pumping from wells having a hydrological connection to surface waters may cause a decline in those surface waters.[19] The circular recommends several modeling and field techniques that can be used to determine whether groundwater pumping from a specific well can potentially impact nearby surface waters.[20] The analysis of this Project's impacts to surface waters should employ modeling and investigation.

USGS Circular 1376 summarizes the "Components of streamflow depletion" as follows:

> Both captured groundwater discharge and induced infiltration of streamflow result in reductions in the total rate of streamflow. Streamflow depletion, therefore, is the sum of captured groundwater discharge and induced infiltration. Captured groundwater discharge is often the primary component of streamflow depletion, but if pumping rates are relatively large or the locations of withdrawal relatively close to a stream, then induced infiltration may become an important component of streamflow depletion.[21]

The required revised analysis must carefully examine all the ways in which the Project's well can cause streamflow depletion.

For areas outside of large alluvial basins, such as mountainous areas with limited alluvial deposits, the County should assume groundwater drains to or is otherwise hydrologically connected to surface waters unless proven otherwise. In other words, the County should utilize the "precautionary principle."[22]

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[17] *See generally*, *e.g.*, CDFW, Fish & Wildlife Groundwater Planning Considerations (2019).

[18] *See* Exh. A – Hecht Letter, pp. 9-10.

[19] *See generally* USGS Circular 1376, Streamflow Depletion by Wells—Understanding and Managing the Effects of Groundwater Pumping on Streamflow, available at: https://pubs.usgs.gov/circ/1376/pdf/circ1376_barlow_report_508.pdf, accessed Sept. 24, 2020.

[20] *See id.* at p. 35, 50, 54.

[21] USGS Circular 1376, p. 76 [Conclusion].

[22] *See* National Institutes of Health, Environmental Health Perspectives, The precautionary principle in

> The precautionary principle, then, is meant to ensure that the public good is represented in all decisions made under scientific uncertainty. When there is substantial scientific uncertainty about the risks and benefits of a proposed activity, policy decisions should be made in a way that errs on the side of caution with respect to the environment and the health of the public.[23]

If there is any evidence of a potential hydrologic connection between the Project well and surface water features, the Project may be subject to forbearance of groundwater pumping during certain times of year under the State Water Resource Control Board's Cannabis Cultivation Policy.[24]

The Staff Report states that "A July 2021 study, Hydrologic Isolation of Existing Well from Surface Waters, determined there is no connectivity between the well and surface waters."[25] The IS/MND reports that "[t]he well, in the context of the geologic structure of the site as well appears to access an aquifer between 110 to 140 feet below ground that exist within a layer of fractured water bearing sandstone that is hydrologically disconnected from the upper layer of landslide deposits."[26] The well log only offers a two-dimensional view of the geology surrounding the well. While there may be impervious layers vertically in the well's bore hole, that does not rule out non-impervious layers laterally, to the area downslope of the Project site. It is possible that groundwater pumping could result in reducing the amount of groundwater that would otherwise make its way to the surface.

However, the referenced July 2021 study does not conclusively rule out the potential for hydrologic connectivity. Information in the IS/MND suggests that the Project may well be hydrologically connected:

> Landscapes exhibit irregular, lumpy topography, with numerous springs, seeps, sag ponds and wetlands; hillslopes lack well incised drainage features. Shallow groundwater perches on a dense clay layer at concave to planar hillslope locations or dense, weakly fractured argillite on some convex to planar hillslope

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environmental science, Vol. 109, No. 9 (2001), p. 871 ["The precautionary principle, proposed as a new guideline in environmental decision making, has four central components: taking preventive action in the face of uncertainty; shifting the burden of proof to the proponents of an activity; exploring a wide range of alternatives to possibly harmful actions; and increasing public participation in decision making"], available at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1240435/pdf/ehp0109-000871.pdf, accessed March 2, 2022.

[23] *Id.* at p. 876.

[24] *See* SWRCB, Cannabis Cultivation Policy Principles and Guidelines for Cannabis Cultivation, 2019, p. 13, available at: https://www.waterboards.ca.gov/water_issues/programs/cannabis/cannabis_policy.html., accessed 03/01/22.

[25] *See* Staff Report, p. 5.

[26] *See* IS/MND, p. 140

> locations. Seeps and springs are evident in hillslope swales and along margins of toeslopes.[27]

The above description of the geology underlying the Project area suggests that groundwater pumping on the Project site could indeed impact springs, seeps, wetlands, and streams located downslope from the well location.

The May 2021 letter from CDFW expressed concern for the very rare wetland type between the Project well and the cultivation site. A hydrologically connected well could impact this rare wetland.

D. The Project May Not Have a Sufficiently Reliable Long-Term Water Supply.

The Staff Report notes that "Water is presently sourced from an existing, onsite non-diversionary well that has a production rate of 28 gallons/minute, as established in a recent drawdown pump test" Similarly, the IS/MND states "The well has a production rate of 28 gallons/minute, as established in a recent drawdown pump test. This production rate will allow the project to pump up to 40,320 gallons in 24 hours."[28] Neither the staff report nor the IS/MND reveals, however, that the Well 2 was installed in June 2017 and the initial pump test for the well was completed at that time, outside of the dry season. The IS/MND also does not reveal that the updated pump test for the well was conducted in May 2020, and was also not conducted during the dry season, as required by County regulations.[29] The IS/MND also does not reveal that the updated pump test was not conducted for the 8-hour minimum duration required under County Department of Environmental Health requirements, but was only conducted for 6.5 hours.[30] Further, because these wells are located outside of an alluvial formation, the production rate of 28 gallons per minute (reported solely in handwritten notes, in violation of CDEH guidelines) is inherently suspect.[31]

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[27] *See* IS/MND, p. 140.

[28] *See* IS/MND, p. 26, citing Appendix I [well report and drawdown test details].

[29] *See* Appendix I to IS/MND, handwritten notes concerning pump test for Well #2, conducted on May 13, 2020; *see also* Exhibit B: CDEH, Water Production Standards and Test Procedures, p. 3 ["All water production tests must be conducted during the dry season and be representative of the lowest annualwater production anticipated from the source. The dry season testing period is August 1 through September 30"], available at: https://humboldtgov.org/DocumentCenter/View/98439/Water-Production-Standards-and-Test-Procedures-PDF, accessed March 1, 2022.

[30] *See* CDEH, Water Production Standards and Test Procedures, p. 3.

[31] *See ibid.*; *see also* public hearing testimony of David Fisch to the Humboldt Planning Commission on November 18, 2021, available at: https://humboldt.granicus.com/MediaPlayer.php?view_id=5&clip_id=1562 [see video of PC meeting at approximately hour/minute mark 2:00, stating most wells in the County outside of the major alluvial basins typically only produce 5 to 10 gallons per minute].

The IS/MND asserts that "[w]hile water demand for Phase II/III irrigation using only the existing well is feasible and sustainable, the project will have the benefit of the 2.2 million gallon rainwater catchment pond to support irrigation demands."[32] This rainwater backup water supply for later phases of the Project is a great improvement over other large-scale cannabis projects proposed in the County. However, there is no evidence to support the claim that reliance on groundwater alone as the Project's supply would be "sustainable."

The sustained yield of the Project's wells have not been adequately assessed. At a minimum, for the analysis of long-term yield to be sufficient, the applicant must conduct at least one pump test in the dry season (August through November) and should report the results of that test.[33] As it stands, there is simply no factual support for a conclusion that well productivity will be sufficient during the dry season both in the near term and in the long-term. According to a well driller in the County with substantial experience determining the long-term yield of wells, multiple pump tests through multiple seasons are necessary to accurately determine that a well can be a reliable long-term water source.[34] According to the County's own standards, the information concerning the well's productivity provided in the IS/MND and in Appendix I is insufficient to determine the reliability of the Project's groundwater supply.[35]

The IS/MND reports that "McMahon Creek to the north is a blue line, Class I stream, but is likely intermittent near the headwaters on the project parcel."[36] Pumping groundwater from Well 2 could potentially affect the headwaters to McMahon Creek and nearby Cooper Creek, potentially making these surface water streams even more intermittent than baseline conditions – this possibility has not been ruled out. The IS/MND should be revised to analyze the potentially significant impacts that can result if pumping from the Project well measurably dewaters one or both of these streams in the dry season.

In his letter, Mr. Lindberg reports:

> Groundwater is also approximately 58 feet higher in elevation than the elevation of the ephemeral tributary of McMahan Creek. Therefore, the perennial

[32] *See* IS/MND, p. 31.

[33] *See* Humboldt County, Division of Environmental Health, Well Permits and Water Production, available at: https://humboldtgov.org/DocumentCenter/View/56116/Well-Permits-and-Water-Production-PDF ["All water production tests must be conducted during the dry season and be representative of the lowest annual water production anticipated from the source. The dry season testing period is August 1 through September 30."]

[34] *See* Fisch testimony to Planning Commission on November 18, 2021, *supra*, at 1:43, 1:50 [well completion report is a "snapshot in a moment in time, it is not a document to take to the bank and say 'look this is my well it is going to last for 1,000s years"], 1:51 [testing well productivity in dry season and wet season is necessary to better understand long-term well yield].

[35] In light of this clear inconsistency with County standards, it is unclear why the IS/MND was accepted as complete by County staff and noticed for approval on the Planning Commission's consent agenda.

[36] *See* IS/MND, p. 88.

> tributary of McMahan Creek appears to be flowing in a different part of the stratigraphic section than the sourced aquifer, and the ephemeral tributary only appears to convey surface runoff during the winter wet season, drying up soon after the seasonal rains end.[37]

We have reviewed the maps and materials provided and are unable to verify the above statement. However, in light of past inaccuracies in Mr. Lindberg's testimony on the subject of potential hydrologic connectivity (where Mr. Lindberg opined that a well that is approximately 20 to 40 feet deeper than the nearest adjacent river level is "approximately equal" in depth to the river),[38] NEC and CSH request independent, scientific, and transparent verification that the groundwater is hydrologically disconnected to surface water features, including but not limited to the perennial tributary of McCann Creek, the tributary to Cooper Creek, and nearby wetlands, springs, and seeps. Dewatering such connected surface water features could result in potentially significant impacts to wildlife that must be analyzed.[39]

1. <u>If Groundwater Is Hydrologically Connected to Surface Waters or Insufficiently Available, It May Be Uncertain as an Identified Water Source, Requiring Identification of Alternative Water Supplies.</u>

Because the Project's groundwater supply itself may be depleted over time, the identified groundwater supply may be uncertain. In *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412 (*Vineyard Area Citizens*), the California Supreme Court set forth a set of principles, derived from over a decade of Court of Appeal case law, governing the manner in which lead agencies must address water-related issues in land use EIRs. Among other principles, the Court stated that:

> If the uncertainties inherent in long-term land use and water planning make it impossible to confidently identify the future water sources, an EIR may satisfy CEQA if it acknowledges the degree of uncertainty involved, discusses the reasonably foreseeable alternatives—including alternative water sources and the option of curtailing the development if sufficient water is not available for later phases—and discloses the significant foreseeable environmental effects of each alternative, as well as mitigation measures to minimize each adverse impact.[40]

Neither the IS/MND nor the staff report for the Project acknowledge the uncertainties concerning the Project's groundwater supply, nor do these analyses include the required

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[37] *See* Exh. E to IS/MND, Letter from D Lindberg, dated July 8, 2021, p. 3.

[38] *See* Appeal Hearing for Humboldt's Own permit, dated February 15, 2022 [hour/minute range: 2:50 to 3:03].

[39] *See Vineyard*, *supra*, 40 Cal.4th at pp. 448-450 [addressing petitioners' claim that groundwater extraction from well field would dewater adjacent river, potentially impacting migrating salmon].

[40] *Vineyard*, *supra*, 40 Cal.4th at p. 434.

analysis that would follow from this acknowledgment. Instead, staff and project consultants simply assume that sufficient groundwater would be available for the Project in perpetuity and that if this water supply proved insufficient, and supplemental supplies through rainwater catchment prove insufficient, the Project could curtail water use.

According to *Vineyard Area Citizens*, in light of an uncertain water supply, the environmental review document (e.g., IS/MND) must acknowledge the uncertainties inherent in a project's sole groundwater supply, identify secondary/alternative sources of water for cultivation and other needs, and analyze the impacts of obtaining the required water from those sources.

For many projects, the most likely potential secondary/alternative sources are: (1) increased groundwater pumping from additional wells, (2) increased rainwater capture, or (3) diversions of surface water under currently nonexistent appropriative rights. Yet, for both hydrological and legal reasons, any claims regarding the availability of these secondary/ alternative sources to serve as a water supply for these projects may themselves be highly uncertain and problematic.

To the extent that the project applicants propose increased groundwater pumping from new wells as a secondary/alternative water supply to make up for uncertain or unavailable groundwater from existing wells or from surface water, CEQA would require assessment of the actual availability of and environmental impacts associated with such groundwater resources, and such assessment cannot be undertaken without first providing up to date information on baseline groundwater conditions and any hydrologic connection between groundwater underlying the Project site and any surface waters.

Rooftop rainwater capture water source can be exempt from the requirement for a water right permit, pursuant to the Rainwater Capture Act of 2012.[41] However, any proposed increase in the capture of rainwater as a secondary/alternative water supply source, unless also (and exclusively) from greenhouse or other project rooftops, would be subject to the water right permit requirement.

Any appropriative diversions of surface water as a secondary/alternative source would require a permit application to the California State Water Resource Control Board ("SWRCB"). In light of increasing water scarcity and high demand, it is highly uncertain that such an appropriative water right application would be approved. In any event, this would need to be explained, together with an analysis of the impacts of diverting surface water.

Again, when a transparent and scientifically sound analysis of the groundwater supply reveals uncertainty of the planned groundwater supply in the long-term, the required analysis under CEQA must identify secondary/alternative sources of water, identify any permits that

[41] *See* Water Code, §§ 10571(c), (d), 10573(d), 10574.

would be required for such sources, and analyze the environmental effects that would stem from utilizing those sources.

2. The County has a Duty to Independently Assess Water Supply Information.

The County has a statutory obligation under CEQA, PRC section 21082.1 to "independently" review and analyze the legal adequacy of the environmental impact assessment performed for land use development projects. This duty includes the duty to undertake an independent assessment by the County of the claimed entitlements to water supply, the claimed sufficiency of the identified groundwater supply, and the environmental impacts of utilizing that identified water source. For the reasons discussed above, the projected groundwater supplies for the Project may be uncertain and utilizing those supplies (or alternative supplies) may cause impacts. The County must independently review and analyze the water supply for the Project and may not merely rely upon opinions or bald assertions of advocates for the proposed development. Here, because the two pump tests for the wells were conducted in June 2017 and May 2020, outside of the dry season, their results are unreliable for determining the well's long-term yield. Yet County staff appear to have uncritically accepted the conclusions from these pump tests.[42]

Importantly, groundwater extraction for commercial cannabis projects in remote mountainous regions may cause cumulative impacts to navigable surface waters, including major rivers, the Public Trust Doctrine is implicated.[43] The County has an independent responsibility, under this doctrine, to ensure these projects do not cause impacts to surface waters and the species that depend on them. Unfortunately, in many of the staff reports that we have reviewed, County staff appear to simply accept scantly supported representations made by the applicant's consultants concerning the lack of a hydrological connection between a project's groundwater source and surface waters.

E. The Project's Roads May Not Satisfy the Minimum Standards of the County's Fire Safe Regulations.

The Project is subject to the SRA Fire Safe Regulations and all other County land use regulations.[44] The County's Fire Safe Regulations require that "Road and street networks, whether public or private, unless exempted under Section 3111-3(b), shall provide for safe access for emergency wildland fire equipment and civilian evacuation concurrently, and shall

[42] *See* Staff Report, p. 5 ["Water is presently sourced from an existing, onsite non-diversionary well that has a production rate of 28 gallons/minute, as established in a recent drawdown pump test"]. Notably, the only evidence reporting the results of the May 2020 pump tests are handwritten notes.

[43] *See Environmental Law Found. v. State Water Resources Control Bd.* (2018) 26 Cal.App.5th 844, 867-68.

[44] *See* CMMLUO, HCC, §§ 55.4.3.3, 55.4.8.1; *see also* SRA Fire Safe Regulation, HCC §§ 3111-1, 3111-2, 3111-3(a)(3).

provide unobstructed traffic circulation during a wildfire emergency consistent with Sections 3112-2 through 3112-13."[45]

In spite of the above mandatory requirements, the Project utilizes a primary access road that does not satisfy minimum requirements of the County's Fire Safe Regulations. For example, County Code section 3112-2 generally requires all access roads for commercial developments to be rated as Category 4 or its functional equivalent. The Fire Safe Regulations would require, at a minimum, expansion of the ranch access roads to Category 3 standards.[46]

The Project will rely upon 3.2 miles of an un-named private road to provide the Project's primary access. The Project does not include improvements to this road. "The evaluation concluded that, with annual maintenance (maintenance grading, ditch upkeep, and spot rocking), the un-named private roads meet the Humboldt County Category 4 Standards (Appendix F)."[47] It is inappropriate to site an operation that, between cultivation and processing facilities, exceeds 200,000 square feet in size with up to 25 employees in a remote wildland area with access roads that do not even currently meet a Category 2 standard.

In contravention of the assumptions relied upon in connection with approving the CMMLUO concerning compliance with access road performance standards, this Project, as proposed, will only satisfy a Category 2 access road standard along the access road to the Project's facilities for one of the largest commercial cannabis projects ever to be proposed in the County. Staff has never explained how a Category 2, 12-foot wide unpaved road will satisfy the access road requirements under the SRA Fire Safe Regulations. The County's Fire Safe Regulations, HCC § 3112-1, requires that "Road and street networks, whether public or private, unless exempted under Section 3111-3(b), shall provide for safe access for emergency wildland fire equipment and civilian evacuation concurrently, and shall provide unobstructed traffic circulation during a wildfire emergency consistent with Sections 3112-2 through 3112-13." Allowing an access road for this commercial project that does not satisfy these minimum standards would require processing this permit as an exception to the applicable standards.

Part A of the Road Evaluation Report included in Appendix F to the IS/MND is inaccurate because it reports that the entire un-named access road is developed to a Category 4 standard.[48] The supporting Road Evaluation Report contradicts and undermines the checked box in Part A of the Road Evaluation Report with the following statement: "Travel way width from intersection of Un-Named Private Access Road varies from 9-15 ft wide with 1'-2' shoulder

[45] HCC, § 3112-1. Notably, none of the exemptions for access road requirements enumerated in HCC § 3111-3(b) apply to the Project.

[46] HCC, § 3112-3(b).

[47] IS/MND, p. 17.

[48] *See* IS/MND, Appendix F, Road Evaluation Report Form.

and adequate turnouts" (emphasis added). An access road that is 9 feet wide in undescribed places could not possibly be a Category 4 road, nor even its functional equivalent.

A "Category 4" road requires the following:

(1) Two lane - narrow roadway, low to moderate speed - 25-40 mph.

(2) No parking on traveled way.

(3) Serves a maximum of 100 parcels with no more than one dwelling unit per parcel.

(4) Urbanization situation. Vicinity is beginning to undergo a transition from rural to urban.

The two 9' -wide gates pictured at pages 350 and 352 of the IS/MND appendix document do not appear to satisfy minimum width requirements under the County's fire safe regulations.[49]

The staff report to the Planning Commission vaguely describes the Project's access roads as satisfying the County's SRA Fire Safe Regulations, but does not acknowledge that staff has relied upon the improper Category 2 access road standard.[50] If the Project access roads remain 9-15 feet wide, and a fire engine is 8 feet wide, how can the access road provide concurrent public evacuation and fire response access? Staff does not address critical questions concerning what is, as a matter of law, a mandatory regulatory requirement.

Because the initial phases of the Project will rely upon two gas generators for all electricity needs, and generators are a known source of accidental wildfire ignition, it is even more important that the access road meet the County's fire safe standards. According to the IS/MND:

> Generator support for product drying during a full build out season is estimated to take a maximum of 6.5 weeks and burn 1,680 gallons of gasoline. [¶] During periods of elevated gasoline use, the project will increase the supply of gasoline to (8) five-gallon containers; these will be refilled by employees daily or as needed."[51]

Operating generators during the fall harvest and drying period would coincide with California's fire season. Both generator operation and transporting gasoline and propane to and from the

[49] *See* HCC § 3112-13 [Gate entrances shall be at least two (2) feet wider than the width of the traffic lane(s) serving the gate, and have pull outs in both directions"].

[50] *See* Staff Report, pp. 6-7 ["[the] conclusion [in the Road Evaluation Report] is that the road network leading to the cultivation area on the subject parcel (APN 217- 215-001) will be equivalent to Road Category 4 with routine annual maintenance, given the adequate distribution of turnouts and low ADT"].

[51] IS/MND, p. 18.

Project site will exacerbate the risk of wildfire. Even the gasifier (which burns wood chips) that will be utilized for heat and energy in Phase 4 may exacerbate wildfire risks because it would be operated in August, September, and October – the most critical fire months. While NEC and CSH support the effort to utilize alternative energy sources, the associated increased risk of wildfire must be considered in the impact analysis. These potentially significant impacts related to wildfire risk were not adequately considered in the IS/MND's impact analysis.

F. The Project Will Contribute to Cumulative Impacts to Grassland Prairie Habitat

When the CMMLUO was adopted, the stated intent was to discourage cannabis cultivation in remote mountainous areas and encourage cultivation in more appropriate flat agricultural land.[52] Indeed, when adopting Resolution 16-14 approving the CMMLUO, the Board specifically found that, under the ordinance:

> New operations are focused towards areas explicitly zoned for agricultural uses that are host to level terrain and prime soils. Since these sites are typically either equipped for or already host to agricultural uses, this helps ensure that runoff from site development and irrigation is controlled and contained, while the lack of steep slopes prevent the possibility of soil erosion and sediment runoff. A documented current water right or non-diversionary source of irrigation water is also required. The amount of prime agricultural soils on the parcel that may be used for cultivation are limited to 20% of those on the parcel to discourage the complete conversion of all prime ag lands to cannabis cultivation, thus helping to preserve and maintain land for existing conventional agricultural activities. Additionally, all grows must comply with the performance standards and conditions contained in the ordinance.[53]

The Project is inconsistent with many of the assumptions made in the above finding.[54] The Project will be located on mountainous terrain in the few interspersed relatively flat grasslands that can potentially be classified as "prime agricultural soil."

This understanding of the unintended consequence of the "Prime Agricultural Soil Loophole," as some commenters have referred to it, has persisted.[55] In late 2020, when the

[52] *See* Humboldt County Bd. of Supervisors, Resolution 16-14, General Plan Consistency Analysis and Findings, p. 2; *see also id.*, Substituted Mitigation Measure Analysis and Findings, p. 8 [finding that a substituted mitigation measure prohibiting new cultivation operations in TPZ zoned parcels "does not allow new cannabis cultivation in forest lands…."].

[53] *See id.*, Substituted Mitigation Measure Analysis and Findings, p. 4.

[54] For example, the Project site is characterized by steep slopes with few relatively flat areas. *See* Exh. B to IS/MND, Figure 4. Study Area Map, 2 of 2 [topographic map of Project site].

[55] *See*, *e.g.*, Exh. C – comments by Friends of the Marbled Murrelet on the Revised IS/MND for the Rolling Meadow Ranch Project, dated Dec. 30, 2020 [stating "the county never analyzed the impacts of a loophole in the ordinance that creates a path for developers to hire consultants that map 'new' prime ag soils. This loophole has

Board heard the Appeal of the decision to approve the Adesa project, staff reported the following frank discussion among the Planning Commissioners:

> During the three Planning Commission meetings there was considerable debate among the commissioners over whether the provisions of the CMMLUO for parcels over 320 acres in size was intended to allow for new cultivation in remote rural portions of the county such as Maple Creek. Specifically, most commissioners agreed that requirement for new cultivation to be located on prime soils was intended to keep new cultivation limited to the more fertile bottomland areas. Commissioners appeared to agree that the identification of prime soils by soils scientists in various rural portions of the county was an unintended byproduct of the CMMLUO as written ….[56]

CDFW's past comments on this issue as it applies to other commercial cannabis projects have pointed out how the associated environmental impact analysis did not address potential cumulative impacts to important grassland prairies (golden eagle foraging habitat) that may result from locating cannabis facilities on newly identified prime agricultural soils located in remote mountainous areas.[57] Neither the IS/MND nor the post-analysis explanations provided by staff address this issue.

The IS/MND must be revised to consider whether the Project is inconsistent with the intent of the CMMLUO. Because the Project will contribute to cumulative impacts to rare plant species and plant communities, the analysis must include mitigation measures to reduce or eliminate this impact.

III. Conclusion: The IS/MND Must be Substantially Revised to Fully Analyze and Address the Project's Potentially Significant Impacts, or an EIR Must be Prepared.

CSH and NEC appreciate the opportunity to provide these comments, albeit under a very tight timeframe. The County, as CEQA lead agency, has the duty to address all of the above substantiated issues based on facts and applicable regulatory standards. In the past, County staff have attempted to improperly shift the burden of proof concerning whether there will be significant impacts onto project challengers and the public. But the failure to adhere to the County's regulatory standards (e.g., performance standards relied upon in prior findings concerning significant impacts) carries with it the presumption that the Project, as designed and currently mitigated, may cause significant impacts.[58] This is all commenters need show in order

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been exploited throughout the county, where questionable methods and consultants have produced soil reports miraculously finding new prime ag soils in places that were never analyzed under the CMMLUO and its MND."]

[56] *See* Appeal package for Adesa project, for 10/27/20 BOS meeting, p. 3.

[57] *See* Exh. D – CDFW comments on revised IS/MND, dated Dec. 30, 2020, pp. 7-8.

[58] When approving the CMMLUO and the CCLUO, the Board relied upon adherence to access road performance

to compel an EIR. Accordingly, and for all of the foregoing reasons, the Planning Commission should not approve this Project based on the flawed and incomplete analysis in the IS/MND.

* * *

We sincerely hope these comments will be useful in revising the impact analysis so that the environmental impacts of pressing concern are adequately addressed in the analysis and fully mitigated, as necessary and appropriate. Please contact us with any questions or concerns you may have regarding these comments.

Very Truly Yours,

Jason Holder

cc: (Via e-mail only)
Client contacts

Attachments:

Exhibit A: Barry Hecht letter, dated Nov. 2, 2021, re: Review of Hydrogeologic Connection Investigation Memorandum Prepared for Platinum King Commercial Cannabis Project (Humboldt County, PLN-2018-15196)

Exhibit B: CDEH, Water Production Standards and Test Procedures

Exhibit C: Comments by Friends of the Marbled Murrelet on the Revised IS/MND for the Rolling Meadow Ranch Project, dated Dec. 30, 2020

Exhibit D CDFW comments on revised IS/MND, dated Dec. 30, 2020

standards in order to find that projects permitted under these regulatory regimes would not have any significant impacts to public services. Now staff proposes an informal exception to the requirements concerning access roads; but the IS/MND does not transparently reveal this exception let alone justify it.

November 2, 2021

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Re: Review of Hydrogeologic Connection Investigation Memorandum Prepared for Platinum King Commercial Cannabis Project (Humboldt County, PLN-2018-15196)

Dear David and Jason,

You have asked for a technical review of a memorandum prepared by Rinehart Engineering interpreting groundwater conditions beneath the Platinum King holdings off of Petrolia Road, and how groundwater at this project site might be connected to streams, seeps, springs, wetlands and other surface-water bodies. The Rinehart Engineering memo is appended to the letter as Attachment A.

As you explained, this memo was attached to a staff report presented to the Humboldt County Planning Commission on September 2, 2021, in connection with the Platinum King, LLC application for a Special Permit for an existing commercial cannabis project. Relying in part on the Rinehart Engineering memo analysis of potential groundwater hydrologic connectivity, the Planning Commission unanimously approved the project. The critical question is whether the analysis and information presented in the Rinehart Engineering memo is sufficient to determine and establish a lack of hydrologic connectivity between the project wells and surface waters.

The Reinhart memo is based on the premise that the potential surface water connections can be described entirely on information contained in Well Completion Reports ('well logs') signed by the licensed drilling contractor who drilled the wells. I have been provided only with a 2-page memo, without materials which frequently accompany a well log intended for agency review, such as a geologic map, a well test report ("flow test/inspection report") noting the water levels during the development testing required for new wells, and, for wells to be used for irrigation, basic water-quality report ("irrigation suitability analysis"), if available. I do not know whether these materials were originally submitted, then separated from the memo; there is no specific reference to such materials in the memo, nor are they cited as attachments or enclosures. As fully set forth below, that information is directly relevant to assessing potential effects of

groundwater withdrawals and sufficiently vital to the intended hydrogeologic interpretation. We would be more than willing to re-interpret the findings below if shown that a more complete package had been relied upon in reaching the conclusions made in the memo.

The memo is primarily based upon the geologic logs in the well completion reports (WCRs) for two wells drilled on slopes of bedrock knobs on either side of Reynolds Road. Their location is also identified as 37773 Mattole Road, shown in other documents to be somewhat more than a mile south of the Mattole River, and at least several dozens of feet above the river. The WCRs (as yet unnumbered but bearing owners' designation as wells 1 and 2) indicate the wells were drilled by mud-rotary methods during May and July 2017, respectively, to depths of 185 and 120 feet, yielding 3 and 10 gallons per minute (gpm) as measured by air lift, a conventional quick-and-dirty approximation appropriately used for interim evaluation of newly completed wells.

Drilling was conducted by Mitchell Drilling, a state-licensed C-57 contractor, under approved Humboldt County Environmental Health Department domestic well-drilling permits. The geologic logs discussed in the Rinehart memo were prepared by the driller. They were filed with the state through the WCR process as required by state law. The logs appear to have been carefully prepared, noteworthy because 2017 was the wettest rainy season of the past 10 years, so access and drilling conditions may have been challenging. Further information on the wells can be found in the staff report prepared by the Humboldt County Planning Department for the Planning Commission hearing of September 2, 2021. Excerpts from the staff report related directly to the wells are appended as Attachment B.

The Rinehart memo does not discuss the nature or location of the wetlands, springs, seeps or streams which may potentially be affected by pumping the wells. No site visits seem to have been made in preparing the memo. It might be noted that the Humboldt County staff report does mention several nearby features considered as habitat for yellow-legged frogs but does not cite their position or distance from either well. This could be important because, *if the aquifer(s) are confined as the memo concludes*, drawing water from the wells could deplete such water bodies at much greater distances (as described below) than from an unconfined water-table aquifer, which is more familiar to most people.

Aquifer Mechanics

Wells work by drawing water out of saturated rock. A cone of depression drained water-bearing rock (aquifer) develops when a well is pumped, much as a depression forms on the surface of a large milkshake when sucked through a straw. The size of the cone of drained water depends on how quickly the fluid is withdrawn. If the cone extends below a river or pond, the water in the waterbody can drain – often quickly – into the cone, with the water level falling and eventually not available to support ecological values in the affected streams, springs, seeps, and wetlands. The volume of the cone (depth and distance from a well) depends upon (1) how quickly the fluid is drawn from the aquifer, (2) the distance from a water body, and (3) how long the well is to be pumped. At a technical level, it is also affected by the permeability of the aquifer integrated over the saturated depth of the aquifer (Transmissivity, or "T"), the storage coefficient ("S"), and the depth and slope of the water table, as well as the degree of confinement (if any) and whether the aquifer is being appreciably (a) recharged by recent rains, or (b) depleted by pumping in nearby wells. None of these factors need to be known exactly to assess effects of pumping on nearby surface-water bodies; approximations can be developed by suitably qualified

individuals, with the needed precision of the estimates varying with the intended purpose of the evaluation. In this case, approximations may be sufficient, but the size and depth of the cone should be roughly known. If the cone does not extend outward as far as the water bodies, it will not directly affect them. Such steps are further discussed in the last section of this letter.

Quandaries in the Rinehart Engineering memo.

Several positions or interpretations put forth in the memo are simply confusing and/or illogical.

1. The memo states that there is no confining layer, but it states the two wells both draw nonetheless upon confined groundwater, presumably connected. The condition of confinement in groundwater is measured by a difference in pressure (or 'head'), generally of some appreciable magnitude. There must be a mechanism – a geologic bed or unit, or a durable membrane of some kind – to maintain that pressure difference. In virtually all cases I know of, confinement is maintained by a confining bed on top of the confined water body, something impermeable below it – either intact bedrock or another confining bed. But since the memo puts forth the notion of (presumably significant) groundwater confinement, it is not clear how pumping these wells would affect the local groundwater system or the surficial water bodies. If so, there is no structure or support for any confinement, the opinion with which the memo concludes.

2. Confined groundwater bodies (or "aquifers") have several well-documented attributes. First, they transmit pressure quickly. Wells developed in confined aquifers can affect water levels in wells developed in the same geologic unit at distances of some thousands of feet or even miles, with the effects being almost instantaneous. There are many widely-known accounts of water levels suddenly rising in wells at some distance from a railroad station as a train approaches a station, then quickly dropping as the train departs and the pressure in the aquifer returns to the pre-existing state; one such case describes a well near the Eureka train station (see Evenson, 1956) from back in the days when there were actual trains at that station.[1] Second, the storage factor (or storativity, commonly symbolized as 'S' in the groundwater literature) is generally much lower in confined aquifers of all types. In unconfined aquifers, S usually ranges from 1 to 25 percent, most commonly 5 or 10 percent. Conversely, in confined aquifers S values typically fall in the range of 0.00005 and 0.005 (or 0.005 and 0.5 percent)[2]. Therefore, when the well if operated, and the pumping cone or funnel described above is being drained to yield water to wells, much less water is produced from a confined aquifer. Draining a cubic foot of aquifer within the cone may produce 5 or 10 percent of a cubic foot of water in a typical unconfined or 'water table' aquifer but might produce only 0.5 to 0.005 cubic feet of water from a confined aquifer. Pumping a confined aquifer to irrigate a crop may dewater many times as much volume in a confined aquifer than in an unconfined aquifer. Cumulatively, pumping a confined aquifer can result in cutting off the supply of water flowing to springs, seeps, streams, and wetlands much more quickly and over a much broader area than would occur when pumping a similarly situated unconfined aquifer.

[1] The weight of train adds pressure to a confined aquifer, causing a rise in water level; pumping such a well causes the reverse effect – it diminishes pressure, causing the water level to fall. Adding pressure causes water levels to rise in a confined aquifer by the same distance that pumping (or lowering pressure) would call water levels to fall in the same well under similar conditions.
[2] Values for confined aquifers from David Keith Todd's textbook (1963), p.31

3. The memo finds definitive meaning in reported differences between static water levels and the water level at which first water was reported to be encountered. This conclusion lacks evidentiary support. The following might be noted:

    a. If a static water level has been established while drilling at shallow depth, and the level in the well rises *above* that level when lower beds are penetrated, yes that does indicate a special kind of confined aquifer, commonly known as an artesian system. But that is not what the memo is stating *("Positive pore pressures were not observed in a borehole when it was drilled.")*

    b. Rather, the memo, though, seems to argue the opposite: *"**If** the depth to the first encountered water is greater than the depth to the static water after the well has been completed, developed and pumped, this is a **determinative indicator** that the well has been completed in a confined aquifer." (Emphasis added).* This position is not supported and, in our experience, is counter to well behavior in a confined aquifer setting. It would be helpful if a citation to a groundwater text, article, manual or ordinance were provided.

    c. In that light, we are not aware of any statutory requirement to note in the WCRs where "first water" is encountered, and no established method of doing so. Depth to first water or the difference between static water level and the depth at which saturated aquifer was first perceived is not recorded on many WCRs ('drillers' logs'). And, as noted below, the observations can mean vastly different things depending upon the drilling methods used for a given well or boring, and whether the static water level is measured before or after the drilling muds are washed out of the gravel pack and the immediately adjacent aquifer clogged by the 'mud cake' associated with drilling with muds. So how can a metric which is estimated (seldom measured) differently by multiple individuals who use different criteria and varies substantially with method of drilling – not to mention that it is not required – be used to define and quantify confinement in the real-world hydrologic environments? The next section explores this further.

    It is difficult to distinguish the depth at which water is first encountered during drilling when the drilling method is mud rotary. Mud rotary entails pumping hundreds of gallons of water and 'mud' down the borehole during drilling. To estimate the depth of 'first water' the driller or his helper must have a look at the mud-coated cuttings washed out of the hole to detect whether they are saturated. In the real world, many drillers who use mud must legitimately focus on safety and often don't have time to do that as they face the very real challenges posed when drilling through the water table; rather, they simply note when enough water from the upper portion of the saturated aquifer has entered the bore such that the drilling mud is becoming thinner. This condition may not be discernible until long after the 'first water' level has been drilled through, at which point the noted first water depth may be dozens of feet lower than when the water table

was first penetrated.[3] In Franciscan formation rocks, such in as those in the Mattole watershed, recognition of saturated rock tends to be further delayed (meaning that the driller reports first water to be deeper than actually might be) because the drilling muds tend to have the same grey coloration as the saturated aquifer. As a result, depth to reported first water is often, or even usually, considerably deeper when drilling with muds. We are not aware of a formal protocol or standard of care for measuring depth to first water. Therefore, many groundwater professionals who need reasonably accurate depths to first water for shallow-water-table, landslide-causation, or contamination investigations (among others) are focused on the level at which first water is encountered do **not** drill with mud, typically specifying "air" or auger methods.

Geologic Context

We concur with the unsurprising observation in the Reinhart memo that "It is essential to fully understand the geologic context at each of these well sites before asserting whether a hydrogeologic connection [to surface waters, including streams, springs, seeps, and wetlands] is likely to exist." But the memo contradicts this principle by not investigating and explain the Platinum King site's geologic context. Because we were unable to find an attached geologic map (or any reference to one), we went to the most widely used published map and produced a copy of the area around these wells (attached). We also checked the geological mapping and literature, just to be sure that the regional mapping was still current and relevant to hydrologic connections. We then posed a few basic questions which geologists and other groundwater professionals typically ask when major re-interpretations have been put forward. These questions and inferred answers are presented below:

Can these wells produce enough water from the screened zone to supply the intended volumes? (NO)

The Rinehart Engineering memo and related discussions with staff seem to be the primary source for the finding in the Planning Department staff report considering the firm yield of the project's water-supply system. Water supply is characterized as 2.5 million gallons per year of ponded surface runoff collection[4] and 1.032 million gallons of groundwater pumped on a 24/7 basis. The arithmetic computation of well yield is correct, but the value is not usable because:

(a) It is based on using air-lift measurements for purpose for which they are not appropriate. They are very approximate short-term pumping tests which the State notes "may not be representative of a well's long-term yield", a statement printed on the well log (WCR) for good reason. Once a well is completed and a pump installed, well yields seldom match airlift tests. Further, both yields and water levels often quickly fall as the cone of depression expands as the well is pumped for sustained periods, and the limits of water-yielding rock are encountered.

[3] Water diluting the muds is drawn into the bore largely by gravity. The deeper the drill may be below the water table, the more water flows into the bore, making the dilution more noticeable. Especially in low-permeability aquifers (such as those at Platinum King), dilution may not be noticeable for tens of feet.
[4] Not considered in this letter.

(b) The tests for well 1 and well 2 were conducted during May and July 2017, the wettest year of the past decade and are not likely reflective of drought conditions, one logical basis for planning an industrial water supply in a remote area.

(c) The wells are not built for 24/7 operation. They were permitted and built as basic domestic wells. When permits for the wells were obtained, the owner had the option of checking boxes which identified them as either "irrigation wells" or "industrial wells" in which heavier-duty materials, construction techniques, pumps, controls, and gravel pack might have been installed.[5]

For estimating reliable annual contributions to the firm of this facility, expectations of available groundwater supplies should reasonably be throttled way down.

Is the hypothesis of an intact confining bed consistent with the local geologic evidence (NO, it is not.)

The memo gives an impression of near-flat-lying confined aquifer overlain by confining layer (seemingly called "aquitard" in the memo), with the well(s) drawing solely from an extensive zone sealed from any hydrogeologic flow above the aquitard.

Site-specific geologic and hydrogeologic conditions:

The wells are located near the Mendocino Triple Junction, probably the most seismically active portion of Humboldt County over the past several million years and counting. The local aquifers are heavily deformed, tightly folded, and physically torn apart. Groundwater conditions in the vicinity of the wells have been fundamentally affected. The geologic deformation – and how inconsistent with the memo's assumption of an extensive confined aquifer -- is not recognized in the Reinhart memo.

The following four points describe why the highly deformed, faulted and fine-grained underlying geology of Franciscan sediments make it unlikely that a confined aquifer isolated from surface waters would occur in the Reynolds Road area. For more background, readers can seek out the U. S. Geological Survey's regional geologic overview by McLaughlin and others (2000) and some of the narrower context of hydrologic response at this site to seismic activity is documented in part in McPherson and Dengler's (1992) article in California Geology.

a. Confinement of groundwater conditions require continuity of the affected aquifer, which the local geology does not provide: The memo claims that confinement is the mechanism by which surface water bodies can be isolated from groundwater pumped at the two wells, which the memo implies may be interconnected. Any confining geologic unit must logically extend at least the distance (seemingly several hundred yards) between the two wells, and substantially beyond them. The geologic conditions at the site do not provide for such continuity. But there is nothing gentle, flat, or continuous about the local geologic structure. Figure 1 (Attachment C) shows geologic units which dip steeply and in almost every direction, chaotically folded. And the map shows that Coastal-Belt Franciscan deposits underlying the Reynolds Road area, even if not fragmented by the chaotic folding, are mélanges -- so fine-grained, squeezed, having peanut-

[5] Not that any well should be operated on this schedule. Maximum pumping of 14 to 16 hours per day are the standard of care.

butter-like plasticity with minimal permeability, such that a connection of either pressure or water within the sediment is so unlikely that it approaches impossible. The two main geologic units under this site are described as violently sheared clayey, sticky, incoherent rock, plainly incapable of forming a nearly flat continuous confined aquifer as more extensive than the distance between the two wells (McLaughlin and others, 2000):

> "**Co1 Mélange** – Dominantly of highly folded argillite and abundant clayey penetratively sheared rock that exhibits rounded, lumpy, and irregular poorly incised topography
>
> **Co2 Mélange** – Subequal amounts of shattered sandstone and argillite with much clayey, penetratively sheared rock that exhibits generally irregular topography lacking well-incised sidehill drainages."

The likelihood of continuous aquifers or aquitards in the Reynolds Road area is vanishingly small.

b. Confinement requires an extensive, rigid, or near-rigid layer with minimal permeability: While the memo states that no confining layer exists, the only logical means of creating confinement is by a layer capable of maintaining a potentially significant pressure differential, with essentially no permeability and with no gaps, holes, or tears which would permit interconnection. The individual beds in these units are too thin, too contorted and convoluted, and transected by faults and fractures to prevent leakage of water or pressure between the zones in which the wells are developed and those which support the streams, springs, seeps and wetlands. The U.S. Geological Survey cross section through this area[6] shows beds so contorted to depths of at least 700 meters (more than 2200 feet, or far deeper than the wells) that the agency uses a series of dense pinwheels cartoons rather than conventional geologic symbology, which is not capable of showing how densely deformed and folded these beds are, and the unlikelihood that any layer capable of groundwater or pressure isolation might exist. Not to mention the ruptures from faulting (see Figure 1) or deep fractures (see below) which characterize this immediate area.

In reality, two such layers would probably be needed to confine water in this area – one above the confined waters and one below to maintain confinement. "Impermeable" bedrock serves as the lower boundary confining pressure and waters in most geologic settings. Given the local contorted folding and the absence of a continuous underlying bedrock, a lower confining unit of some type would be needed to maintain a pressure differential. The memo does not identify one, let alone two, such units.

c. The Reynolds Road area is typical of areas drained of groundwater following the Honeydew earthquake of August 1991 and the Petrolia earthquake of April 1992; raising the question of when else does water move to the Mattole River, its tributaries, and springs and seeps? So it is known that under at least some extreme conditions that groundwater moves to the streams (and presumably seeps, springs, and wetlands). Following the Honeydew earthquake, streamflow

[6] The cross section is located along the thin line trending northeastward through Figure 1.

in the Mattole River increased by 5 to 8 times, with flows only gradually dim? shing to pre-quake levels after 60 to 90 days[7]:

The geology under the Reynolds Road area is typical of the hydrogeologic environment which contributed to these post-event significant and persistent flows. The memo does not envision any barrier which would have isolated water from this area during the regional post-event drainage. While post-quake conditions may not be the benchmark for defining surface/groundwater connection relevant to the Humboldt County regulations, it does raise the question of when else does water move to the streams from beneath this area.

d. "Well technology" and "impermeable well seals" cannot isolate surface and groundwaters in this area, as claimed in the memo. Local seismic events in the Triple Junction Area tend to be unusually violent and grinding for their size. For example, Petrolia earthquake of 1992 accelerated the whole region surrounding Reynolds Road by a measured rate of 2.2 times gravity, enough to launch unanchored items (such as pumps or concrete pads surrounding wells) in the air, and one of the most abrupt seismic shaking events ever recorded in the country. Hydrogeologists know that even more-routine earthquakes are sufficient to shatter well seals, rupture casings, and destroy wells. To give some idea of the types of stresses to which wells are subjected in this area, the entire region was thrown upward by more than a yard during the Petrolia event.

Similarly, the smaller Honeydew event left cracks in the rock extending to great depths through the multiple groundwater-bearing zones throughout the Reynolds Road and surrounding (described by McPherson and Dengler, 1992), further casting doubt on the ability of "well technology" to create a well seal capable of lasting the life of the proposed project.

Natural geologic barriers capable of causing confined conditions are similarly unlikely to survive events of this type without rupturing, especially since they have been shaken by literally dozens of comparable events over recent geologic time.

In summary, the Rinehart memo proposes confinement as a mechanism precluding connection between the wells and surface waters, but states that no confining layer exists. No alternate mechanism for confinement is proposed. Confinement requires geologic conditions which can maintain significant pressure differences over areas at least as far apart as the two wells, but the memo offers no evidence or even indications for it. If confinement indeed exists, pumping of these wells must result in a much more extensive and more rapid dewatering of the aquifer per volume of water pumped than would be true in an unconfined or 'water table' condition, because of the much lower storativity ("S") that is integral to confinement. In all likelihood, any well will be drawn down further when a given volume is pumped out of the well if the aquifer is unconfined. These are known relationships and are to be expected if the aquifer(s) are in fact confined. It would have been useful to include in the memo some indication that the effects of pumping were likely to propagate further –perhaps onto adjoining properties – or more rapidly

[7] A similar response was documented in many watersheds in the Santa Cruz Mountains following the Loma Prieta earthquake (1989) in a region where very few confined aquifers are reported.

extend to the bottom of the usable aquifer, that such information might belong in the memo, and be available to guide evaluation of the project.

The memo states that "well technology" can isolate these wells. Water can and does go around the type of unperforated ("blank") casing described, as well as the 'impermeable concrete grout' well seals discussed in the memo.[8] Water does so by percolating into the soil and infiltrating to the water table and flowing into the well, completely bypassing the so-called impermeable well seal when drawn into the well by the forces within the well's cone of depression. That is why wells with perfect seals still produce contaminated water when they are situated in areas where groundwater has been (or is being) contaminated. And if water did not move to the water table from which the two wells draw, where are they being recharged each year to meet the annual production anticipated?

Perhaps there is a better way?

The memo does not consider other ways of exploring and documenting connection(s) with other surface waters that were and are available to its writer. We make several suggestions of ways to assess this set of questions in which the public process might be more usefully informed. These alternate approaches are in keeping with standard practice statewide. They would provide the County with greater assurance of protecting the public resources that are so valued in Humboldt. And they are not unduly costly relative to other standard methods used to assess or monitor as part of the CEQA process. Among accepted approaches are:

1. Show the locations and extents of seeps, springs, wetlands, or wetted reaches of streams which could possibly be linked to the aquifer within which the well(s) is developed, preferably on a map also showing the cone from which the wells will draw.

2. Compare similarities and differences in basic water quality measures, such as salinity (measured either as total dissolved solids or the field index of specific conductance), or individual major ions, simple measures which comparisons of water to quantify whether they come from common source(s). If the sources may be significantly different, there is a good chance that extracting water from the well(s) may not directly affect the surface water body; strong similarities suggest the possibility of a strong connection.

3. Evaluate the well(s) by pumping, which can be done in many ways and levels of accuracy, but it is essential to estimate the sustained yield of the wells) and the properties of their target aquifer, such that effects of pumping the well(s) can be knowledgeably estimated.

[8] The memo indicates that both wells will not affect other local waters because they are sealed with concrete grout. However, the promised well technology does not apply here, since the WCRs ('driller's logs) show that both wells are sealed with field-hydrated bentonite pellets, not concrete grout. The pellets may actually be a suitable idea, as they may provide a seal likely to flex rather than shatter during the unusually forceful seismic events which affect this particular area – with deep geologic cracks (observed after the Honeydew earthquake of 1991) and vertical acceleration exceeding 2g, plus tectonic uplift of more than a meter (during the Petrolia earthquake of 1992) -- provided that County so allows it.

4. Assess the water levels in the wells relative to the surface water bodies, including field visits, if warranted, such that adjustments can be made for wet year/drought year and seasonal water-level fluctuations.

5. Use historical and recent aerial photography to identify where vegetation supported by a surface-water body or elsewhere may be drawing on groundwater, including the use of commonly available false-color infrared imagery and other remote-sensing applications can be incorporated, if and where useful.

6. Inquire of knowledgeable local observers as to where and when springs, seeps, and streams flow or when wetlands pond, and inquiring about factors possibly contributing to identified changes.

7. Evaluate water levels in waterbodies (and/or other local wells) relative to the water level in the well(s) of interest to calculate groundwater slopes and flow paths; and

8. Measure any visually connected flows (using approved methods), then adjust for evapotranspiration to compute whether the flows are being depleted or augmented by local groundwater pumping or recharge.

These approaches can be combined, conducted concurrently, and can be checked and validated with results of each other approaches. Many or most would not be needed in all settings, or even the majority of settings, as the right set of approaches for each site should be tailored to local conditions and constraints. Other approaches (such as geophysical investigations) can be added in special situations. In the specific instance of the Reynolds Road wells and aquifers, it is likely for example, that the eighth method would not be appropriate, and the information needed to assess the utility of 1, 2, and 3 such as basic well-development records or water-quality data are not currently available in the public forum. Generally, though, the most valid, cost-effective, and reproducible answers will likely result from assessing effects on other bodies by applying this "supported by multiple, independent lines of evidence set of approaches" (SMILES).

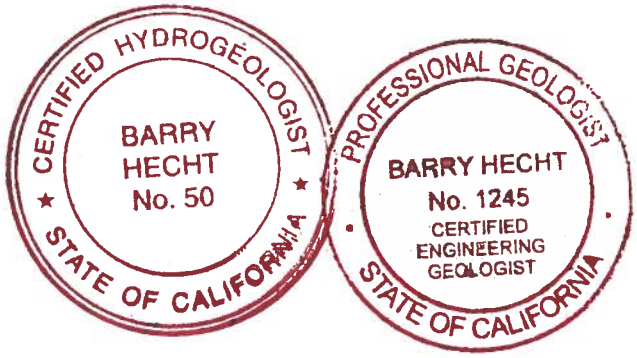
The practice of evaluating the effects of pumping wells on springs, seeps, streams, and wetlands is now rapidly evolving in California. Partly, this is a secular change as practitioners become increasingly interested in protecting sensitive habitat, often in conjunction with managing Waters of the U.S. or Waters of the State. In our opinion, three distinct other resource-management trends are also catalyzing this evolution. First, the State Division of Water Rights is increasingly conditioning all projects to consider, conserve, and monitor springs, seeps, and wetlands. Second, water conservation efforts statewide such as measures encouraging lining of ponds, ditches, and canals are now requiring assessment of their effects on seeps, springs, wetlands, and in-channel flows. Finally, the California Department of Water Resources and the State Water Resource Control Board are implementing the State Groundwater Management Act (SGMA), which requires all regulated entities to demonstrate that they are not adversely affecting such waterbodies, known as Groundwater Dependent Ecosystems (GDEs). Consequences under SGMA of not being able to demonstrate affirmative efforts to show no adverse effects on GDEs and to do so with hydrologically rigorous methods are very real and very substantial. While Platinum King is not within a specified jurisdiction subject to SGMA, the state-wide professional standards are rapidly shifting toward a

quantitative standard. It may serve Humboldt County well to draw upon the methods outlined above, staying in step with at least the basic elements of the statewide state of the art. Once again, I remain available to modify this review as additional information becomes available.

I appreciate the questions you have asked and look forward to helping find sound answers.

BALANCE HYDROLOGICS, Inc.

Barry Hecht, Senior Principal
PG 3664, Ch 50, CEG 1245



Literature Cited

Evenson, R., 1956, Geology and groundwater features of the Eureka area, Humboldt County, California: U.S. Geological Survey Water Supply Paper 1470.

McLaughlin, R.J., and others, 2000, Geology of the Cape Mendocino, Eureka, Garberville, and southwestern part of the Hayfork 30 x 60-minute quadrangles and adjacent offshore area, Northern California: U.S. Geological Survey miscellaneous field studies MF-2336. Figures (geologic maps, cross sections, seismic event epicenters) and pamphlet (28 p.)

McPherson, R.C., and Dengler, L.A., 1992, The Honeydew Earthquake, August 17, 1991: California Geology, v.45, no. 2, p. 31-39

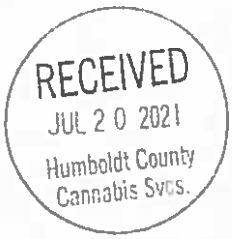
Attachments:
A. Rinehart Engineering memo
B. Materials from the Sept. 2, 2021 Planning Commission public hearing
C. Geologic map of the area surrounding Reynolds Road.

ATTACHMENT A:

MEMORANDUM FROM RINEHART ENGINEERING
JULY 20, 2021

As noted in our Nov. 2, letter, we do not know if this memo included the well completion reports (WCRs or driller's logs), Flow-Test Report (Well-Development log) or analytical results of water quality testing. All three shed important light on the memorandum, but are not cited as being attached.

RINEHART ENGINEERING
559 Howard Heights Road Eureka, CA 95503
(707) 498-3414
rinehartengineering@gmail.com



To: Platinum King Farms, LLC

From: Bret Rinehart, PE

Date: July 20, 2021

Subject Well Hydrogeologic Analysis

Location: 37773 Mattole Road, Petrolia CA 95558 APN 104-071-004

I have reviewed the attached Well Completion Reports for the existing 6" diameter 180 ft deep well (Well #1) and existing 4" diameter 120 ft deep well (Well #2) at 37773 Mattole Road, Petrolia CA 95558 (APN 107-071-004) to assess the likelihood of a direct hydrologic connection between the well as completed and surface waters.

I evaluated the well log for the following specific evidence of a potential surface water connection:

1. The presence of a stratum of alluvium within the screened interval(s). The presence of rounded rocks or gravels is a strong indicator that the well intersected an area that was formerly a stream channel. While not conclusive proof that an individual well is hydrologically connected to surface water, alluvium is a strong indicator that such a connection could exist. Lenses or stringers of course sand, gravel, and cobbles provide a preferential pathway for groundwater to discharge to surface water or for surface water to be depleted by pumping from a well. However, even if alluvium is encountered in the borehole, well completion techniques typically preclude the shallow groundwater from the borehole. This is most often accomplished by installation of blank casing and a sanitary seal (impermeable grout) or a conductor casing completed to the depth of the aquitard.

2. Positive pore pressures were not observed in a borehole when it was drilled. If the depth to the first encountered water is greater than the depth to the static water level after the well has been completed, developed, and pumped, this is a determinative indicator that the well has been completed in a confined aquifer. The presence of observable positive pore pressure in an aquifer precludes a direct connection to surface water. If a direct connection did exist, pore pressures would be in equilibrium with the ambient atmospheric pressure.

3. A confining layer is not present. In the geologic logs, the screened interval for the well lies below a substantial aquitard. In order for a confined aquifer to exist, there must be an aquitard that allows some level of positive pore pressure to exist in an aquifer.

4. Screened well interval(s) do not intersect shallow water tables or geologic units with very high hydraulic conductivity or porosity. The geology of north western California does not have extensive bedrock units that have high hydraulic conductivity and effective porosity (such as karst). The colluvial soils derived from bedrock in this area tend to be relatively fine-grained, do not yield significant groundwater, and tend to form competent aquitards.

5. It is essential to fully understand the geologic context at each of these well sites before asserting whether a hydrologic connection is likely to exist. For instance, wells in deep Franciscan bedrock units are unlikely to have a hydrologic connection to surface water unless extreme topographic relief and a deeply incised stream channel results in a nearby surface exposure of that same bedrock unit.

Conclusion

I have concluded that the existing wells at 37773 Mattole Road are not hydrologically connected because of the geology, the distance to nearby surface waters and the construction technique.

At Well #1, approximately 75 feet of overburden ("top soil" and "brown clay, silty clay, sandy clay and silty sandy clay") overlies about 85 feet of "grey shale" followed by 20 feet of "greyish sand and gravel". Based on the depth to first water, the primary water bearing unit is the "grey shale" layer from 75 to 160 feet deep. The depth to the first observed water was 35 feet bgs and the static water level after the well was completed and developed was 20 feet bgs, meaning that this well is screened in a confined aquifer. The upper 40 feet is blank well casing and cannot yield shallow groundwater. The screened interval extends from 40 to 180 feet bgs and groundwater from intervals shallower than 40 feet cannot be produced from this well.

At Well #2, approximately 40 feet of overburden ("topsoil" and "brown clay, brown silty clay, brown sandy clay") overlies about 60 ft of "rock & shale, grey shale, grey silty sand, rock & gravel". Below that lies "greyish sandy sandstone". Based on the depth to first water, the primary water bearing unit is the "rock & shale" layer from 40 to 100 ft deep. The depth to the first observed water was 30 feet bgs and the static water level after the well was completed and developed was 20 feet bgs, meaning that this well is screened in a confined aquifer. The upper 30 feet is blank well casing and cannot yield shallow groundwater. The screened interval extends from 30 to 120 feet bgs and groundwater from intervals shallower than 30 feet cannot be produced from this well.

Please feel free to contact me if you have any questions at (707) 498-3414.

REGISTERED PROFESSIONAL ENGINEER
BRET R. RINEHART
No. 70375
EXP. 9/30/22
CIVIL
STATE OF CALIFORNIA

7/20/21

Bret Rinehart, PE
Rinehart Engineering

ATTACHMENT B:

MATERIALS FROM HUMBOLDT COUNTY PLANNING COMMISSION SEPTEMBER 2, 2021 AGENDA PACKET

ATTACHMENT C

FIGURE 1: GEOLOGICAL MAP OF REGION SURROUNDING PLATINUM KING HOLDINGS, PETROLIA, CA

(Excerpt From Mclaughlin And Others, 2000)

WATER PRODUCTION STANDARDS AND TEST PROCEDURES

Purpose

The following standards apply to individual water supplies serving 1 to 4 service connections for proposed subdivisions, individual residences in the coastal zone, and accessory dwelling units where proof of water is needed in accordance with Humboldt County Code. These standards are intended to assure that development is consistent with the limitations of the parcel's water supply. Water production testing results shall be valid for a period of five (5) years without a comprehensive justification for extension from a Registered Geologist or a Registered Civil Engineer.

The water production test is necessary to identify the sustained yield of a water supply and demonstrate that the proposed source has sufficient, and sustainable, capacity to meet the minimum water supply requirements. However, water rights entitlements are not considered under this policy. Developers and owners must demonstrate compliance with applicable laws and regulations related to water resources during the development project evaluation.

Water production testing must be conducted in conformance with the procedures herein. Alternative testing procedures may be utilized if they yield equivalent results, have no greater impact to neighboring wells or surface waters, and are approved in writing by the Division of Environmental Health prior to the test.

WATER PRODUCTION STANDARDS

- For individual residences the minimum required water supply per residence from the source shall be 1.0 gallons per minute (gpm) per dwelling unit. This quantity may be reduced to a minimum of 0.5 gpm per dwelling unit if a minimum of 1,500 gallons of domestic water storage is provided for the residence. Note that this storage volume must be dedicated to domestic use and does not include storage for fire suppression, if required.

- Minimum required water supply for commercial, institutional, and industrial facilities shall be determined by a licensed civil or mechanical engineer and accepted by the County Planning Department during project review. The procedure outlined in this document may be used to demonstrate specific capacity.

- Water production tests for springs and streams must be conducted by a Licensed Well Drilling Contractor (C-57), Licensed Land Surveyor, Registered Civil Engineer, Registered Geologist, or Registered Environmental Health Specialist. Other qualified consultants may conduct water production tests if they obtain prior written approval from the Division of Environmental Health.

- Well production tests must be conducted by a Licensed Well Drilling Contractor (C-57), Registered Civil Engineer, or Registered Geologist. Other qualified consultants may conduct water production tests if they obtain prior written approval from the Division of Environmental Health.

- All water production tests must be conducted during the dry season and be representative of the lowest annual water production anticipated from the source. The dry season testing period is August 1 through September 30. The period may be modified, extended, or terminated by the Division of Environmental Health during periods of unusual rainfall.

- The Division of Environmental Health may waive or modify the dry season testing requirement on a case-by-case basis where adequate documentation is presented to determine adequate water supply is available, accessible and sustainable for the proposed development.

- Requests for waivers, modifications, or proposals for alternative testing procedures must be submitted in writing with appropriate supporting information.

- In cases, where extraction may have long term impacts to surface and/or groundwater supplies in areas identified as Critical Watershed Areas or Critical Water Supply Areas, by the Humboldt County Board of Supervisors, an analysis of impacts from a certified hydrogeologist may be required.

WATER PRODUCTION TEST PROCEDURES

Streams and Springs: Where Water Overflows the Collection Facility

The water tester shall measure the time required to fill a container of a known volume (minimum size two (2) gallons) to determine the source water flow rate in gallons per minute. At least three measurements must be made to complete a test. If the rates vary considerably (by more than 33 percent), a minimum of ten measurements must be taken to complete a test. The average of the recorded measurements shall be considered the test production rate. A minimum of three (3) tests shall be taken, each spaced at least seven (7) days apart.

Wells and Springs: Where Water Must Be Pumped from The Collection Facilities

The static or non-pumping water level shall be established prior to the start of the test, and the volume stored in the well or spring shall be calculated. For existing wells, it may be necessary to prohibit pumping 12 to 24 hours prior to beginning the test. For newly developed wells, production testing shall commence no sooner than 7-days following well development.

A sustained yield, metered pump test is required for pumped water sources for a minimum specified time period of 12 hours for water systems with 1-2 connections, 24 hours for water systems with 3-4 connections, and 72 hours for systems with 5 or more connections. Note: also refer to Section 64563 of the California Code of Regulations for systems with 5 or more connections.

When multiple sources are proposed to provide the minimum water supply for a shared water system each source shall be tested simultaneously.

Water pumped from the water source during testing shall be conserved by storage or routed to a recharge/discharge area beyond the influence of the pump test (minimum 200 feet from well). The pump shall be set at the depth of the lowest producing zone of the spring or well. During the initial stage of the production test, a volume of water equivalent to the calculated volume stored in the well or spring shall be removed as quickly as possible.

During the test, the pumping water level (drawdown) and discharge rate shall be measured according to the following schedule:

Time since pumping initiated (including pumping to remove stored volume)	Time Interval
0 to 10 minutes	Record every 1 minute
10 to 45 minutes	Record every 5 minutes
45 to 90 minutes	Record every 15 minutes
90 to 180 minutes	Record every 30 minutes
180 minutes to end of test	Record every 1 hour

Should the measurements not be made exactly at the time specified, the actual time of each measurement shall be recorded.

Once the calculated volume stored in the spring or well is removed, the water source shall be pumped at a flow rate equal to or greater than the minimum required flow for a duration equal to or greater than the minimum specified time period. If the pump breaks suction at a flow rate higher than the minimum requirement, the pumping rate may be slowly decreased to not less than the minimum required supply flow. Each time the pump breaks suction, the pumping rate shall be reduced by a minimum of 5 percent to a rate that allows the pump to continuously operate. The well shall be pumped at this rate until the drawdown stabilizes for a minimum of 3 consecutive hours. The discharge rate and drawdown, thus established, shall be maintained until the 3 hour drawdown stabilization concludes or the minimum test duration expires, whichever is longer. If the pump breaks suction at or below the minimum required water supply rate, the test fails.

For water well sources, the minimum required pump test duration may be reduced to a minimum specified time period of 8 hours for water systems with 1-2 connections or 16 hours for water systems with 3-4 connections if, after at least 4 hours of pumping, the following conditions are met:

- the pump never breaks suction with the pumping water level
- the specific capacity (pump rate divided by drawdown) is greater than 0.05

For both spring and water well sources, the 72 hour test duration for sources serving 5 or more connections may be modified by the Division of Environmental Health if sufficient justification is provided in writing by the qualified test conductor; in no case shall the 72 hour test be reduced to less than 48 hours.

On completion of pumping, the final discharge rate and pumping water level shall be recorded, and post-test recovery measurements shall begin. Recovery measurements shall be made according to the above drawdown schedule until the water source recovers to 95% of the original static water level or until a maximum duration of 72 hours is completed, whichever is sooner. If a 95% recovery cannot be obtained within 72 hours following the pump test, the water source's yield is inadequate to support the proposed development.

All measurements shall be recorded and reported with the highest degree of accuracy. All data and information pertinent to the project shall be submitted on a form(s) prepared by, or approved by, the Division of Environmental Health (see Attachments 1 and 2) and accompanied by a summary report of the testing. The summary report shall include a site plan encompassing all existing, and proposed, developments and all hydrologic features within 1000 feet of each water source being tested.

Drawdown effects on all wells within 300 feet of the proposed production well, or spring, must be evaluated and disclosed. Impacts to flow rates, static water level and recovery of neighboring wells greater than 5% shall not be approved as demonstration of adequate water supplies. Additionally, an adequate water supply pump test shall not have an impact to neighboring wells with less than 1.0 gpm per connection, within 300 feet, greater than 1%.

Effective 07/30/2021

(Attachment 1) **DRY WEATHER WATER PRODUCTION TEST DRAWDOWN DATA**

Owner: _____ **APN:** _____

Well Location latitude: **longitude:**

_____1/4	_____1/4	_____1/4	**Section:** _____	**Township** _____ N / S	**Range** _____ E / W

Type of Water Measuring Equipment: _____ **Date Test Performed:** _____

Company Performing Test: _____ **Measured By**: _____

TIME DATA	WATER LEVEL DATA	DISCHARGE DATA
PUMP ON Date:_____ Time: _____ (t_0) **PUMP OFF** Date: _____ Time: _____ (t_1) **DURATION OF AQUIFER TEST** Pumping: _____ Recovery: _____	**STATIC WATER LEVEL:** _____ **MEASURING POINT:** _____ **HEIGHT OF MEASURING POINT ABOVE GROUND:** _____	**HOW WAS DISCHARGE MEASURED?** _____ **DEPTH OF PUMP/AIRLINE:** _____

Pumping Data: **Specific Capacity:**

Date	Clock Time	Time Since Pump Started (min.) t_0	Pumping Water Level Measurement (ft)	Pump Rate (discharge) gpm	Comments on Factors Affecting Test Data

(Attachment 2) **DRY WEATHER WATER PRODUCTION TEST RECOVERY DATA**

Owner: _____ **APN:** _____

Well Location latitude: **longitude:**

_____1/4	_____1/4	_____ 1/4	**Section:** _____	**Township** _____ N / S	**Range** _____ E / W

Type of Water Measuring Equipment: _____ **Date Test Performed:** _____

Company Performing Test: _____ **Measured By**: _____

TIME DATA	WATER LEVEL DATA	DISCHARGE DATA
PUMP ON Date:_____ Time: _____ (t_0) **PUMP OFF** Date: _____ Time: _____ (t_1) **DURATION OF AQUIFER TEST** Pumping: _____ Recovery: _____	**STATIC WATER LEVEL:** _____ **MEASURING POINT:** _____ **HEIGHT OF MEASURING POINT ABOVE GROUND:** _____	**HOW WAS DISCHARGE MEASURED?** _____ **DEPTH OF PUMP/AIRLINE:** _____

Recovery Data:

Date	Clock Time	Time Since Pump Shutoff (min.) t_1	Recovery Water Level Measurement (ft)	Comments on Factors Affecting Test Data

McClenagan, Laura

From: Ryan, Meghan
Sent: Wednesday, December 30, 2020 2:14 PM
To: 'Marbled Murrelet'; Planning Clerk; Johnson, Cliff
Subject: RE: Rolling Meadows CUPs, SCH 2020070339

Dear Friends of the Marbled Murrelet - Thank you for your comments on the Rolling Meadow Ranch project near the community of McCann. Your comments will be forwarded to the Humboldt County Planning Commission for consideration at the January 7, 2021, Planning Commission hearing.

I appreciate your participation in the public process.

Best,
Meghan

From: Marbled Murrelet <marbledmurreletfriends@gmail.com>
Sent: Wednesday, December 30, 2020 1:41 PM
To: Planning Clerk <planningclerk@co.humboldt.ca.us>; Johnson, Cliff <CJohnson@co.humboldt.ca.us>; Ryan, Meghan <mryan2@co.humboldt.ca.us>
Subject: Rolling Meadows CUPs, SCH 2020070339

We urge the county to deny this project. In the alternative, should the county persist in attempting to approve the project, it should be recirculated, and an NOP & EIR must be prepared because there are multiple significant environmental impacts. Nothing in county code requires approval of the project, and the county has complete discretion to deny the project.

Issues of grave concern:

1) Golden Eagle

An active Golden Eagle territory completely overlaps the project, and a mapped nest site is within 1000 yards of the primary development area. The US Fish and Wildlife Service (USFWS) requires a one mile “no disturbance” buffer around Golden Eagle nests. The developers have conducted some surveys but none have occurred in the critical eagle courtship timeframe (January & February) when observers are most likely to see Eagles and potential nest sites. This means that they failed to follow established protocols, either deliberately or because the consultants at NRM are incompetent. If the project is built as proposed it will likely result in the loss of this Eagle territory. And no, Eagles don’t just move somewhere else, because those other areas are occupied by Eagles already.

The county has already approved the Adesa project in the Maple Creek area of the Mad River, over the objections of a retired USFWS Eagle expert and without consultation with the USFWS. The county is currently evaluating at least 40 commercial cannabis projects that occur within known Golden Eagle territories, but has failed to analyze these cumulative impacts.

This is a significant issue, and once again the county has totally failed to protect the resources and comes to a false conclusion. If the county persists in approving projects in Golden Eagle territories, we shall work diligently to involve the Enforcement branch of the US Fish and Wildlife Service, US Attorneys and federal courts in order to uphold the federal Bald and Golden Eagle Protection Act. This is an issue of region wide significance that must be evaluated in an EIR.

2) Water wells connected to the Eel River

The water wells are absolutely “connected” to the Eel River, and the county has the obligation to evaluate the public trust impacts of water extraction for commercial cannabis cultivation. A letter from the well driller is not sufficient evidence (merely his opinion) as he is not qualified to make such statements about the wells. The well driller further has financial incentive to state his wells are not connected to streams. Only a CA licensed engineering geologist or hydro geologist may evaluate the hydraulic connectivity of wells to surface waters. The county should require an independent evaluation of the wells from a licensed and qualified professional that is not bought and paid for by the developers. In not doing so here and across the county for the many hundreds of wells supplying commercial cannabis, the county has failed in its basic duties under CEQA and the Public Trust Doctrine as put forth by the California Supreme Court.

3) Prime Ag Loophole

This project’s location and the fact that it’s a brand new large scale cultivation enterprise is completely counter to the county’s own policies for siting new commercial cannabis development. The use of “prime agricultural” soil to justify this new development turns logic on its head. The county’s first ordinance (CMMLUO) allowed for new cannabis on prime ag soils, but only to minimize environmental impacts by getting cultivation areas out of remote locations. At the time the county passed the first ordinance, it could have only evaluated the currently mapped prime ag soils, all of which occur in traditional farmland, down in the flat valleys and coastal plains. This, of course, made sense to locate cannabis on actual farmland. However, the county never analyzed the impacts of a loophole in the ordinance that creates a path for developers to hire consultants that map “new” prime ag soils. This loophole has been exploited throughout the county, where questionable methods and consultants have produced soil reports miraculously finding new prime ag soils in places that were never analyzed under the CMMLUO and its MND. Thus, that is why this Rolling Meadows project is even being considered, based entirely on a loophole in the law that was never analyzed under CEQA. This is a farce and shall not continue. We shall push to expose this damaging loophole in the county code because it is offensive to basic tenets in CEQA, and counter to policies in place for siting new commercial cannabis development.

4) Predetermined Outcome frustrates CEQA’s purpose and public involvement

The county has already set a hearing for this project on January 7, 2021 to move for approval before the planning commission. The deadline for comments on the MND is set as December 30, 2020. This leaves only a few days between the New Years Holiday and the weekend, for county staff to compile, organize, and respond to public and agency comments. This absurd timeframe only leads to a single conclusion for members of the general public that have an interest in this project: that the county planning department has already made up its mind, and will be pushing through the MND and the project for approval regardless of any comments received. The complete lack of transparency and respect for CEQA’s public process has become a hallmark of the Humboldt county planning department. This type of disregard for public comments and input is not new, and has grown out of the complete disaster of a public process that was the damaging TerraGen wind project. It is extremely discouraging and insulting to see it continue under county leadership. Therefore, should the county persist with this damaging proposal, it should propose a new hearing date that is more realistic and in keeping with the spirit of public engagement under CEQA. However, we have zero confidence in the county’s process after observing the deceitful actions that took place over the Adesa hearings and with the total disaster that was TerraGen.

Respectfully submitted,

- Friends of the Marbled Murrelet

December 30, 2020

Meghan Ryan, Senior Planner
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Subject: Rolling Meadows (SCH# 2020070339) Conditional Use Permits Initial Study and Draft Mitigated Negative Declaration

Dear Meghan Ryan:

The California Department of Fish and Wildlife (CDFW) received from the County of Humboldt (Lead Agency) a recirculated Initial Study and Draft Mitigated Negative Declaration (IS/MND), dated November 25, 2020, for the Rolling Meadows (Project), in McCann, Humboldt County, California. CDFW understands the Lead Agency will accept comments on the Project through December 30, 2020.

Previously, on July 16, 2020, the Lead Agency circulated an IS/MND. On Thursday, August 13, 2020, CDFW staff conducted a site visit of Facilities #1-16 of the Project area. On August 17, 2020, CDFW submitted written comments on the IS/MND. On October 8, 2020, CDFW issued a final Lake or Streambed Alteration (LSA) Agreement to rebuild an existing bridge on Larabee Creek that will serve as an alternate access to the Project from Alderpoint Road. Work at several additional stream crossing locations disclosed in the IS/MND are subject to LSA Notification and have not yet been evaluated or authorized by CDFW.

The Project is located on Humboldt County Assessor's Parcel Numbers (APNs) 217-181-028, 217-201-001, 217-022-004, 217-201-001, 211-281-006, and 217-181-017. The project proposes 306,648 square feet (7 acres) of new cannabis facility space, including 249,739 square feet (5.73 acres) of new mixed-light cannabis cultivation. The Project also proposes use of three wells for irrigation in addition to 320,000 gallons of proposed greenhouse roof rainwater catchment that will be stored in tanks. The mixed-light cultivation is proposed to be powered by Pacific Gas and Electric, however new connection lines and associated infrastructure will be needed.

As the Trustee for the State's fish and wildlife resources, CDFW has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants and the habitat necessary to sustain their populations. As a Responsible Agency, CDFW administers the California Endangered Species Act and other provisions of the Fish and Game Code (FGC) that conserve the State's fish and wildlife public trust resources. CDFW offers the following comments and recommendations in our role as Trustee and Responsible Agency pursuant to the California Environmental Quality Act (CEQA; California Public Resource Code §21000 *et seq*.). CDFW participates in the regulatory process in its roles as Trustee and Responsible Agency to minimize project impacts and

avoid potential significant environmental impacts by recommending avoidance and minimization measures. These comments are intended to reduce the Projects impacts on public trust resources.

Clarification of CEQA Document Type

The CEQA document currently in circulation is called an “Initial Study and Environmental Checklist”, however the November 30, 2020 Notice of Intent calls the document an IS/MND. For this comment letter, CDFW assumes the document currently is circulation is an IS/MND. However, the Environmental Checklist on page 33 of the November 25, 2020 IS/MND was not completed or signed.

Please provide clarification if the document is 1) IS/MND or 2) an Initial Study and Environmental Checklist that will be used to determine the appropriate CEQA Environmental Document (i.e., Mitigated Negative Declaration or an Environmental Impact Report) (**Recommendation 1**).

Golden Eagle

The IS/MND discloses a previously documented golden eagle (*Aquila chrysaetos*) nest site within line-of-site from the Project (California Natural Diversity Database occurrence #80, Nelson 2000), however complete protocol level golden eagle surveys for the Project have not yet occurred. The IS/MND acknowledges golden eagles are designated as Fully Protected pursuant to FGC section 3511, and that take of Fully Protected Species is prohibited. Additionally, the low and declining population numbers of golden eagles within northwestern California (Harris 2005, Hunter et al. 2005) and the broader Bird Conservation Region (BCR) where the Project occurs (Millsap et al. 2016, USFWS 2016) suggest impacts to golden eagle may be potentially significant (CEQA Guidelines section 15125 (c)). However, the IS/MND does not contain complete or adequate survey results for this species (Pagel et al. 2010). Without sufficient and complete surveys for golden eagle, CDFW cannot adequately comment on the potential for take or significant impacts to this species nor the effectiveness and feasibility of mitigations.

No Sustainable Take Rates. The importance of conserving golden eagle populations and their habitats is highlighted by their low and declining population numbers within BCR, where the Project occurs. BCR 5 spans from Alaska to Sonoma County, California and is estimated to contain only 189 golden eagle breeding pairs with no sustainable take rates (Millsap et al. 2016, USFWS 2016). While avoiding disturbance to nest locations is important during courtship, breeding, and rearing of young, it is also important to ensure that adequate grassland foraging habitat remains within a golden eagle territory. Prior studies in the western US suggest a radius of two miles encompasses 50 to 80 percent of golden eagle use and represents densely used core area (Watson et al. 2014, Hansen et al. 2017).

Project Juxtaposition to Golden Eagle Breeding Habitat. Grasslands within one mile of nest sites may be particularly vulnerable to disturbance effects on golden eagle while

they are feeding nestlings (USFWS 2020). From the location of the documented 2003 nest site, the Project's two eastern most clusters of greenhouse facilities lie within one-mile and are within in line-of-site of the nest location (Figure 1- 2). The juxtaposition of the Project area to the 2003 nest site would maximize visual and other disturbances perceived at the nest site and potentially eliminate the majority of the foraging habitat within the core area (Figure 1 – 2).

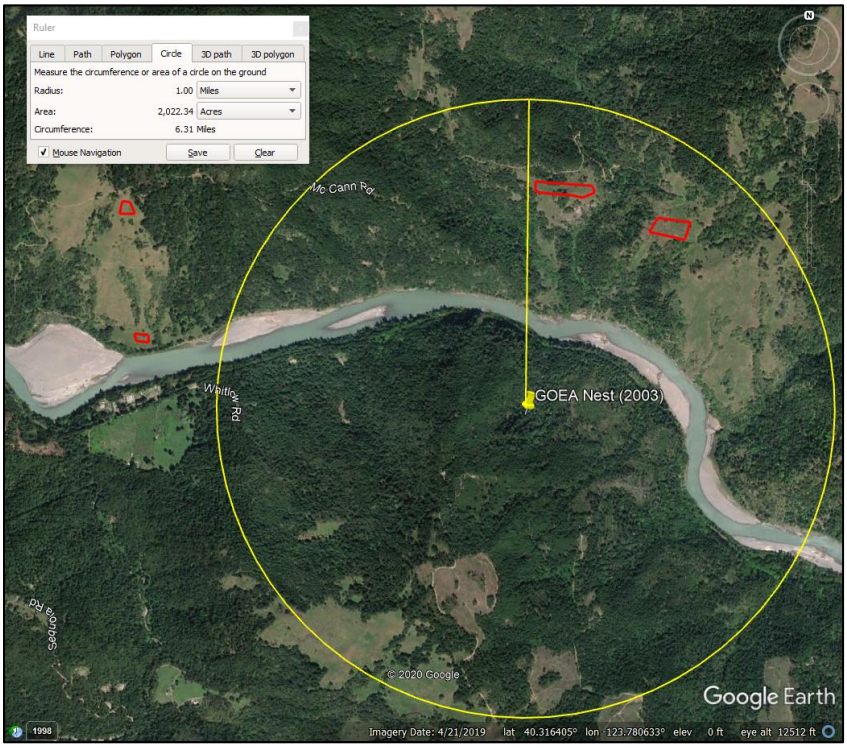

Figure 1. A one-mile radius around the 2003 nest site. Project areas are shown in red and two locations are within the one-mile no disturbance buffer. Note: alternative nest sites may be closer to the Project.

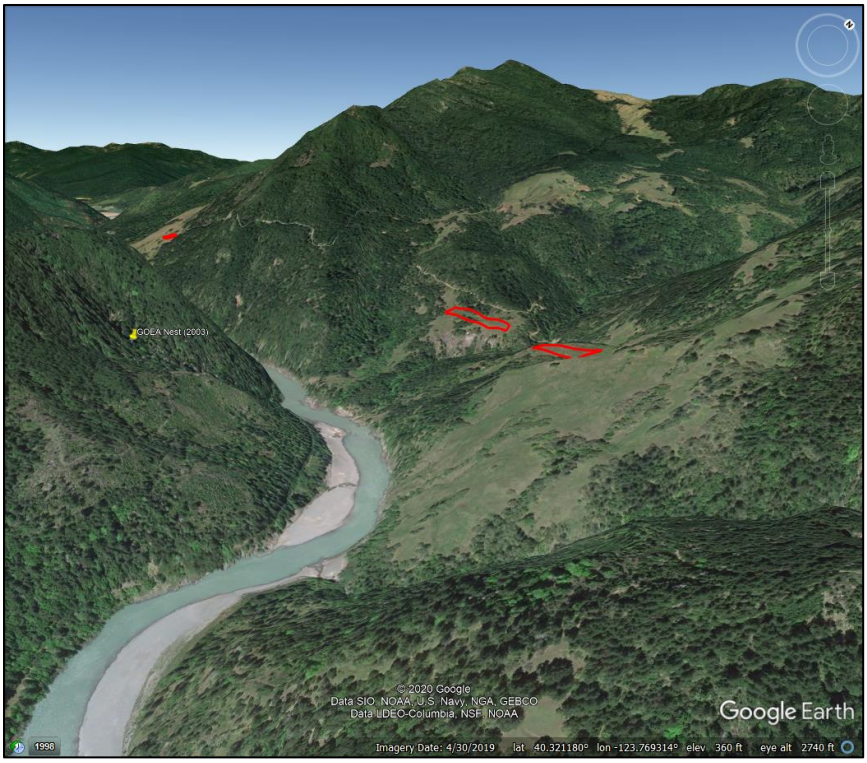

Figure 2. A documented golden eagle nest site (yellow pin) is within line-of-site of Project cultivations areas (shown in red). Note: alternative nest sites may be closer to the Project.

Golden Eagle Sensitivity to Disturbance. Although not well described in the Environmental Setting section of the IS/MND, the pre-Project baseline level of anthropogenic disturbance (e.g., visual, noise, and light) is very low or non-existent within the Project area. Any golden eagles in this vicinity are likely to be especially sensitive to human disturbance. Based on the range of disturbance distance thresholds for golden eagles (Hansen et al. 2017), they may flush from their nests or reduce feeding young with even low to moderate disturbance (including pedestrian activity) occurs within 1,000 meters (3,281 feet or 0.62 miles). Furthermore, nest-site protection is only beneficial if there is adequate access to prey. While male golden eagle's presence at nests is generally limited to prey delivery or brief assistance with young, they frequently rest on perches in view of nests (Watson et al. 2014). In southwestern Idaho, golden eagles perched away from nests were 12 times more likely to flush in response to recreationists than eagles at nests (Hansen et al. 2017). This suggests frequent human activity away from nests could result in chronic disturbance of foraging golden eagles and reduced provisioning rates at the nest. For example, if the 1,000-meter disturbance metric is applied to Project cultivation areas that may affect grassland foraging areas within a one-mile no disturbance buffer of the 2003 nest site, approximately 125 acres of 219 acres (57 percent) of foraging area may be avoided by foraging golden eagles attempting to feed their young (Figure 3).

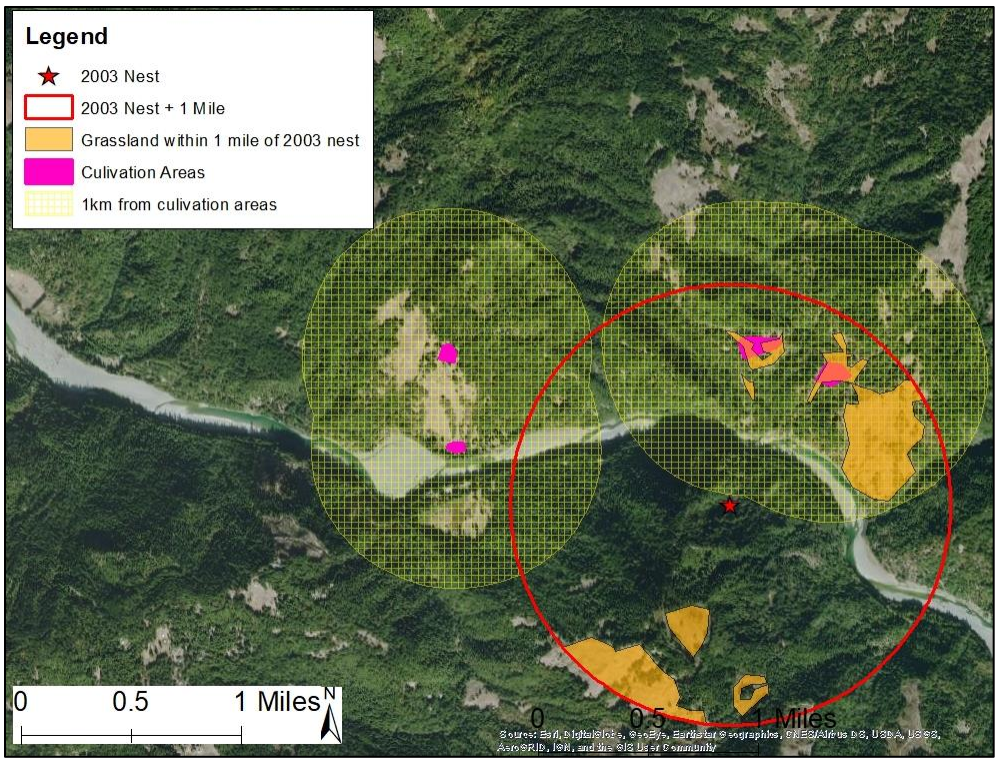

Figure 3. Assuming no golden eagles forage within 1,000 meters of cultivation sites, the Project would result in a 57 percent reduction of foraging habitat within a one-mile no disturbance buffer.

Unlike short term disturbance impacts (e.g., timber harvest), ongoing chronic disturbance may warrant buffers in excess of 1,000 meters, further supporting the USFWS' one-mile no disturbance buffer for golden eagle nest sites. Importantly, the IS/MND Mitigation Measure Bio-16 calling for a 660-foot buffer from nest sites was intended by the USFWS for bald eagles (*Haliaeetus leucocephalus*) (USFWS 2017), who are much less sensitive to disturbance than golden eagles (USFWS 2016).

Golden Eagle Surveys. Deficiencies in Project golden eagle surveys include: 1) none of the golden eagle surveys conducted for the Project occurred during the courtship season when golden eagles are most likely to be detected. Once golden eagles have paired and laid eggs after courtship, they become secretive and difficult to detect. The protocol specifically states the first inventory and monitoring surveys should be conducted during courtship when adults are mobile and conspicuous. Other deficiencies of the Project's golden eagle surveys include: 2) survey duration less than four hours (as recommended in the protocol), 3) surveyor location movement during surveys (survey should occur in blinds or other cryptic locations because golden eagles will avoid human presence and activities, potentially resulting in false negative survey results), 4) insufficient Project area coverage from survey locations (cultivation locations are nearly two miles apart and likely require multiple four-hour protocol observation points), 5) anecdotal conclusions based on out-of-season observations that the documented 2003 nest site is unoccupied, and 6) no evaluation of potential alternative nest sites within the Project vicinity (golden eagles often rotate annual occupancy of several alternative nest sites within a core area (Watson et al., 2014)).

Regarding anecdotal conclusions based on out-of-season observations, the IS/MND provides insufficient evidence to support current unoccupancy at the 2003 golden eagle nest that occurs about 1,000 meters south of the Project. The nest was last reported occupied in 2003 (Nelson 2020), but there are no records of attempts to verify continued nesting until one month ago, outside the breeding season. Project biologists visited the 2003 nest vicinity in November 2020 and concluded the nest is no longer present due to a lack of visible white-wash (fecal matter) or prey remains on the ground. If that nest location was occupied in 2020, young may have fledged from the nest several months prior and evidence of white-wash and prey remains may no longer have been present in November. The lack of a physical nest observation in 2020 does not support the conclusion a nesting site is no longer there because, 1) nests can occur in any portion of trees that could support a large stick platform and can be obscured from ground view when located at the top of a tree or in complex side-branch structures, 2) nest structures can be 10-feet in diameter and retain white-wash and discarded prey remnants where they cannot be observed from the ground, and 3) nests platforms occasionally fall out of trees and are rebuilt by golden eagles when they choose to nest in that tree again as part of their semi-annual rotation of alternative nest sites within a territory, of which they exhibit nest site fidelity over years and decades (Hansen et al., 2017).

Regarding no evaluation of potential alternative nest sites within the Project vicinity, the IS/MND states that no golden eagle nesting habitat exists in the immediate vicinity of the Project based on the assumption that potential nesting habitat is synonymous with northern spotted owl (NSO) high quality nesting/roosting habitat, but this statement is not supported. While NSO may be more likely to utilize forested areas with many larger trees, golden eagles can nest in locations with just one tree large enough to support a nest platform anywhere within the tree (Menkens et al. 1987, Baglien 1975). Given that many large diameter trees (e.g., Douglas fir [*Pseudotsuga menziesii*] crown diameter 40+ft visible on Google Earth) occur within one mile of Project locations, suitable nesting trees with complex branch structures may occur closer to the Project than the 2003 nest location.

Given the high-quality nesting and foraging habitat in the Project vicinity (large trees and grasslands), the previously documented nest site, 2018 golden eagle flyover observation during Project surveys, multiple other recent reports of juvenile golden eagles in the vicinity (Gaffin 2014 and 2015), and fidelity to nesting sites over years or decades (Hansen et al. 2017), the potential for an active breeding territory within the Project vicinity is high. Without adequate surveys for this species and, if present, a detailed effects analysis of potential Project impacts, CDFW is concerned that the Project could interfere with breeding, nesting success, feeding, sheltering behavior, and result in a loss of productivity, nest failure (e.g., disturbance-induced reduced provisioning of young), or complete abandonment of a golden eagle breeding territory (due to long term chronic disturbance).

Based on the golden eagle information discussed above, CDFW recommends the Project complete protocol golden eagles surveys and consult with CDFW prior to completion of CEQA (**Recommendation 2**). There is a reasonable likelihood an active

golden eagle breeding territory occurs within the Project vicinity and that several alternative nest sites may exist within relatively close proximity to the Project. Without sufficient protocol surveys for this species, we cannot adequately comment on the potential for significant impacts nor the effectiveness and feasibility of take avoidance or mitigations. Additionally, as proposed in the IS/MND, mitigation measure Bio-16's 660-foot nest buffer may be inadequate for this species and could potentially result in take of a Fully Protected species.

Cumulative Impacts to Grassland Prairies

The Lead Agency's Commercial Medical Marijuana Land Use Ordinance states no more than 20 percent of the area of prime agricultural soils on a parcel may be permitted for commercial cannabis cultivation. It is unclear if the ordinance and its supporting CEQA analysis intended new cultivation sites to be located within remote (i.e., exurban), hillside grassland prairies (where sensitive species may occur) as opposed to traditional agricultural lands already associated with crop production. An unintended consequence of requiring new cultivation on prime agricultural soils (and allowing new areas to be classified as such with no minimum size) is the targeting of small, isolated, flat grasslands within larger prairie complexes on steeper slopes. These habitats are vital elements of biodiversity and provide important habitat for wildlife (Stromberg et al. 2007, CNPS 2011, CDFW 2014a). For example, grasslands in less developed portions of the County correspond with golden eagle foraging habitat and may be occupied by sensitive breeding territories, as described previously in this letter.

The Humboldt County Planning and Building Department has received at least 45 commercial cannabis applications occurring within 1 mile (recommended no disturbance buffer) of documented golden eagle nest sites (Table 1, Battistone, 2020). Furthermore, over 150 commercial cannabis cultivation applications occur within two miles of documented golden eagle nest sites. Given the number of proposed projects within one mile of documented nest sites and that 50 to 80 percent of eagle habitat use is reported to occur within 2 miles of nest sites, CDFW is concerned cumulative project impacts could eliminate golden eagle territories within Humboldt County.

Additional cumulative impacts could occur to other grassland-dependent special status species such as northern red-legged frog (*Rana aurora*), grasshopper sparrow (*Ammodramus savannarum*), mountain plover (*Charadrius montanus*), northern harrier (*Circus hudsonius*), white-tailed kite (*Elanus leucurus*), Pacific gilia (*Gilia capitata* ssp. *pacifica*), short-leaved evax (*Hesperevax sparsiflora* var. *brevifolia*), Baker's navarretia (*Navarretia leucocephala* ssp. *bakeri*), Kneeland prairie pennycress (*Noccaea fendleri* ssp. *californica*), maple-leaved checkerbloom (*Sidalcea malachroides*), Siskiyou checkerbloom (*Sidalcea malviflora* ssp. *patula*), beaked tracyina (*Tracyina rostrata*), leafy reed grass (*Calamagrostis foliosa*), Hitchcock's blue-eyed grass (*Sisyrinchium hitchcockii*), and other special status species (CDFW 2020a).

Table 1. Humboldt County commercial cannabis applications within two miles of documented golden eagle nest sites.

Key Parcel Distance to Mapped Golden Eagle Nest (Miles)	Number of County Cannabis Cultivation Applications
0 - 0.25	9
0.26 - 0.5	9
0.51 - 1	27
1.1 - 2	112
Total	157

Cumulative impacts could also occur to rare vegetation types known as Sensitive Natural Communities. Using the best available data on the abundance, distribution, and threat, CDFW assigns natural communities rarity ranks and/or a designation as "Sensitive" (*). Rarity ranks range from 1 (very rare and threatened) to 5 (demonstrably secure). Sensitive Natural Communities (S1 – S3 or otherwise designated as sensitive) should be addressed in the environmental review processes of CEQA and its equivalents (CDFW 2020b). Cumulative impacts could occur to grassland-associated Sensitive Natural Communities in Humboldt County including California brome – blue wildrye prairie (*Bromus carinatus – Elymus glaucus*; S3), Oatgrass - Tufted Hairgrass - Camas wet meadow (*Danthonia californica – Deschampsia cespitosa – Camassia quamash*; S4*), Idaho fescue - California oatgrass grassland (*Festuca idahoensis – Danthonia californica*; S3), California goldfields – dwarf plantain – small fescue flower fields (*Lasthenia californica – Plantago erecta – Vulpia microstachys*; S4*), and other sensitive natural communities.

The IS/MND should evaluate cumulative impacts to grassland prairies, particularly special status species and sensitive natural communities (**Recommendation 3**).

Use of Water Wells

The IS/MND relies on written statements from David Fisch of Fisch Drilling to assess well use impacts to groundwater. Although Mr. Fisch is a Licensed Water Well Contractor, it is not apparent that he is licensed to provide geologic interpretations and/or related evaluations of groundwater/surface water connectivity. The scientific and engineering community universally accepts the connectivity of surface water and groundwater systems and that groundwater discharge to streams constitutes a sizeable and important fraction of streamflow (Fetter 1988, Winter et al. 1998, Department of Water Resources 2003, Barlow and Leake 2012, Province of British Columbia 2016).

In light of the Project's geologic setting, mapped springs, wetlands, and other surface water features (IS/MND Figure 61 on page 197), and based on the potential total volume of groundwater extraction from the three new wells, CDFW recommends the applicant retain a qualified professional (e.g. geologist or engineer with hydrogeology background) licensed to practice in California to conduct a preliminary evaluation of the Project's potential impacts to local surface water flows, and to provide

recommendations that ensure Project activities will not substantially affect aquatic resources (**Recommendation 4**).

Post-project Reclamation and Restoration

As described in the IS/MND, the Project will occur in a remote area of the County that supports numerous special status species and habitats. The Project's seven acres of new cannabis facility development and infrastructure will have lasting effects on the landscape if the Project permanently ceases operations at some point in the future. Similar to other industries with this spatial magnitude of ground disturbance (e.g., mining) it is appropriate to decommission facilities and restore the area at the end of a project's life.

CDFW recommends a mitigation measure or condition of approval to require a Post-project Reclamation and Restoration Plan. That plan should be implemented if project activities cease for five years (**Recommendation 5**).

The following resource topics were brought up in our August 17, 2020 letter for this Project, and are reiterated with additional information here as the revised IS/MND did not appear to fully address these:

Botanical Surveys and Impact Analysis

The IS/MND states botanical surveys for rare plants did not encompass the entire Project area, specifically Facilities #6 through #9. The entire Project area should include the "whole of the action" (CEQA Guidelines section 15003 (h)), including all proposed buildings, new powerlines, borrow pits, access roads, and other areas of new ground disturbance. The IS/MND proposes completing botanical surveys as a mitigation measure. Based on the IS/MND, it appears floristic botanical surveys have not yet covered the entire Project area, including proposed work on the access road to Alderpoint, which contains suitable habitat for a Humboldt County milk-vetch (*Astragalus agnicidus)*, a State Endangered Species.

To avoid deferred analysis, and potential deferred mitigation, the IS/MND should include the results of floristically appropriate botanical surveys for the entire Project area. Surveys and reporting should be in accordance with CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* and propose avoidance/mitigation where appropriate (**Recommendation 6**).

Wetland Fill and Development Setbacks

The IS/MND indicates development of Facility #9 will require wetland fill and encroachments on wetland setbacks at Facilities #1 and #2. Approximately 90 percent of California's historical wetlands have been filled or converted to other uses, with a consequent reduction in the functions and values wetlands provide (CDFW 2014b). Additionally, there may not be a viable path for wetland fill to create cultivation sites

pursuant to the SWRCB's Cannabis Cultivation General Order (SWRCB 2019a).

CDFW recommends the Project adhere to Humboldt County General Plan wetland setbacks through Project layout changes to avoid wetland fill and associated development setbacks (**Recommendation 7**). CDFW also recommends the Project consult with the North Coast Regional Water Quality Control Board regarding the State Water Resources Control Board's (SWRCB) Cannabis Cultivation Policy and its mandate to protect springs, wetlands, and aquatic habitats from negative impacts of cannabis cultivation (SWRCB 2019b).

Development within the 100-year Flood Zone

The Project proposes locating two greenhouses (Facilities #1 and #2) within the 100-year flood zone of the Eel River (IS/MND Figure 63 on page 200). Floodplains, by their nature, are likely to be inundated by high flow events. They also connect streams and rivers to upland habitat and provide an important ecological transition zone (CDFW 2014b). Grading within the floodplain and placement of complex, automated mixed-light greenhouses, and ancillary facilities, would likely result in pollution and debris during a 100-year flood event.

CDFW recommends Project layout changes to avoid non-essential development in Eel River 100-year floodplain. (**Recommendation 8**).

Electric Infrastructure Expansion

The IS/MND indicates approximately four miles of new electrical lines will be installed to connect existing powerlines to proposed cannabis cultivation sites. Based on the IS/MND, it appears the new electrical lines will be installed, primarily buried within the road prism.

Although CDFW appreciates the Project using existing disturbed areas for the utility alignment, the IS/MND should include further analysis on potential additional development or growth inducing impacts within the local region that may be facilitated by the creation of four miles of new electrical utilities (**Recommendation 9**). If the Project will not be growth inducing, as stated in the IS/MND, it may be appropriate to include development limitations on these parcels in the form of a Development Plan recorded with the County.

Mixed-light Cultivation

Light pollution effects on wildlife include disruption of circadian rhythms and suppressed immune response, changes in foraging behavior, altered navigation and migration patterns, altered predator-prey relationships, impacts on reproduction, and phototaxis (CDFW 2018, CDFW 2020c). CDFW and others have observed light pollution originating from greenhouses throughout the County. This is inconstant with the County General Plan and International Dark Sky Standards. The IS/MND suggests International Dark Sky Standards will be upheld by the Project.

Based on experience with other similar cultivation projects, it is difficult to monitor and regulate potential light pollution impacts from non-compliance with permit conditions. The County should ensure the measures to comply with International Dark Sky Standards are implementable and easy to confirm or monitor (**Recommendation 10**).

Invasive Species

The IS/MND does not address potential significant effects from introduction or spread of invasive plant and animal species. Invasive species are known to result in habitat loss and other impacts to native species and may result in an overall loss of biodiversity, particularly special status species (Duenas et al. 2018). Invasive plant species may enter or spread through the Project area from imported soil, attachment to vehicles, and other means of accidental introduction.

CDFW recommends a mitigation measure or condition of approval to require an invasive species management plan that would manage any existing invasive species and prohibit planting, seeding or otherwise introducing terrestrial or aquatic invasive species on Project parcels, including all access roads (**Recommendation 11**).

Rodenticides and Similar Harmful Substances

This Project has potential high use areas for birds of prey including, white-tailed kite (*Elanus leucurus*), red-tailed hawk (*Buteo jamaicensis*), ferruginous hawk (*Buteo regalis*), golden eagle, and other species. New agricultural development has the potential to increase rodent populations, which are sometimes treated with rodenticides. Rodents killed by rodenticide have the potential to be consumed by raptors, other birds of prey, and wildlife species, resulting in harm or mortality (CDFW 2018, CDFW 2020c).

CDFW recommends a condition of approval that will prohibit the use of rodenticides and similar harmful substances on Project parcels (**Recommendation 12**).

We appreciate the opportunity to comment on this IS/MND. If you have any questions please contact Environmental Scientist Greg O'Connell by email at Gregory.OConnell@Wildlife.ca.gov.

Sincerely,

DocuSigned by:
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Citations

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From:	Berhe, Ermias A.@Waterboards
To:	Johnston, Desmond
Cc:	Dougherty, Mona@Waterboards; Filak, Jordan@Waterboards
Subject:	(SCH Number 2021110058) CEQA review response/comment for Blocksburg Family Farm, LLC APN 217-471-001-000
Date:	Wednesday, March 23, 2022 9:06:46 AM

Hello Desmond,

We have received a CEQA review request for the subject property. I had a quick look at the attachments in the Office of Planning and Research (OPR) page, SCH Number 2021110058. Please see below my comments and let me know if you have any further questions or concerns.

APN 217-471-001-000 is enrolled under the Cannabis General Order WQ 2019-0001-DWQ with WDID # 1_12CC419213, tier 1 low risk. On May 12, 2021 we have issued a Water Quality Certification NOA for instream works and amended that NOA on May 14, 2021.

From the Initial Study/Mitigated Negative Declaration and Environmental Checklist for Cannabis Cultivation and to Establish Ancillary Processing Facilities document.

1. They are proposing to expand their cultivation areas and related activities (referred to disturbed area in the General Order) to more than 1 acre. The Cannabis General Order requires enrollees to recharacterize their tier/risk level if there is any expansion to more than their current tier. In this case their tier should be upgraded to tier 2. They can submit tier change request to our general cannabis email at: NorthCoast.Cannabis@WaterBoards.ca.gov or in their annual monitoring report through the portal at; https://public2.waterboards.ca.gov/CGO.
2. Wetland delineation surveys were conducted in May of 2019, March and April of 2021. Based on the delineation report they have made buffers (state order setbacks) around the delineated wetlands in the plan they submitted. Assuming the delineation was done properly I don't see any violation of the Cannabis General Order and concerning water quality issue.

Please let me know if you need any document of enrollment and compliance.

Best,

Ermias Berhe
Engineering Geologist
Northern Cannabis Regulatory Unit
North Coast Regional Water Quality Control Board
Phone: 707-445-6128
930 6th Street, Eureka CA 95501
Email: Ermias.Berhe@Waterboards.ca.gov

The governor of California has issued a statewide shelter in place order due to the COVID-19 emergency. The Water Boards are continuing day-to-day work protecting public health, safety, and the environment. However, most staff are working remotely and we continue to check email and voicemail regularly. Thank you and stay healthy and safe.

ATTACHMENT 8

Lindburg Geologic Consulting Report Regarding Executive Order N-7-22

LINDBERG GEOLOGIC CONSULTING
David N. Lindberg, CEG
Post Office Box 306
Cutten California 95534
(707) 442-6000

April 7, 2022 Project No: 0166.01

Ms. Nancy Nunez
Mr. Dakota Ringo
Post Office Box #238
Blocksburg, California 95514

Subject: Applicability Executive Order N-7-22 to Existing Permitted Well
Sherman Flat, near Blocksburg, Humboldt County APN 217-471-001

Dear Nancy and Dakota:

As you know, in July 2021, we at Lindberg Geologic Consulting assessed your existing permitted well on the above-referenced property to estimate the potential for hydrologic connectivity with adjacent surface waters or wetlands, and if pumping this well could affect adjacent wetlands or surface waters in McMahon Creek. This well was drilled under county permit (#16/171143) on June 23, 2017, by Bushnell Drilling of Garberville. On the 28th of March, 2022, our governor issued an executive order (N-7-22) relating to the ongoing drought California is experiencing.

In his executive order, the governor outlined several measures the state will undertake to avoid and ameliorate the negative impacts of the current drought. Among these measures, it was ordered that counties, cities, and other public agencies have been prohibited from approving permits for new groundwater wells (or alteration of existing wells) in basins "*subject to the Sustainable Groundwater Management Act and classified as medium- or high-priority without first obtaining written verification from a Groundwater Sustainability Agency managing the basin or area of the basin where the well is proposed*". Your well is not within a basin subject to the Act, and there has been no Groundwater Sustainability Agency established with authority over the area where your permitted well is sited.

Further, the Order states that counties, cities, and other public agencies have been prohibited from issuing permits for new groundwater wells (or alteration of existing wells) "*without first determining that extraction of groundwater from the proposed well is (1) not likely to interfere with the production and functioning of existing nearby wells, and (2) not likely to cause subsidence that would adversely impact or damage nearby infrastructure*". Note that this Order, and that cited in the preceding paragraph, are not applicable to "*wells that provide less than two acre-feet per year of groundwater for individual domestic users, or that will exclusively provide groundwater to public water supply systems*."

Based on our April 7, 2022, review of the Division of Water Resources (DWR) Well Completion Report Map Application, there are no other wells in Sections 4 or 5, T2S, R5E, nor in Sections 32 or 33, T1S, R5E. There are apparently no other (permitted) wells nearby. We conclude therefore, that your well is "not likely to interfere with the production and functioning of existing nearby

wells." In our opinion, given the geologic structure of the area where your well was drilled, and the fact that your well is in a remote, undeveloped rural area, there is a negligible chance that the extraction of groundwater could "*cause subsidence that would adversely impact or damage nearby infrastructure*." There is no infrastructure in the vicinity of your well. Based on our review, Alderpoint Road, an intermittently maintained Humboldt County road located more than 1.5 miles west-southwest of your well, is the nearest public infrastructure. Alderpoint Road is also more than 1,200 feet lower in elevation than the site of your 200 foot deep well.

Based on our research, and the information available, it is apparent that the Governor's recent Executive Order (N-7-22) is neither relevant nor applicable to your existing permitted well at Sherman Flat. Your well is not in a basin subject to the Sustainable Groundwater Management Act. Based on the DWR records, there are no other wells within one mile of your well, so your well cannot "*interfere with the production and functioning of existing nearby wells*." There is no infrastructure nearby that could be adversely impacted by subsidence, even in the unlikely event that groundwater extraction from your well would result in subsidence.

Please contact us if you have questions or concerns regarding our findings and conclusions.

Sincerely,

David N. Lindberg, CEG
Lindberg Geologic Consulting

DNL:sll

ATTACHMENT 9

Public Comments

From: Johnston, Desmond
To: robie tenorio
Subject: Blocksburg Family Farm, LLC Record Number: PLN-12265-CUP Assessor's Parcel Number (APN): 217-471-001
Date: Thursday, April 21, 2022 11:50:00 AM
Attachments: 12265_MND_BlocksburgFamilyFarmsLLC_3.9.2022.pdf
image001.png

Hello Ms. Tenorio,

The emails that you sent to Director Ford and to me on 2/28/2022 and 3/1/2022 do not indicate a request for the revised IS/MND. I am not aware of another comment from you.

The Revised IS/MND is attached per your request. Please be aware that the CEQA public review period closed April 18, 2022.

Your message below states that you just submitted comments again for tonight's hearing. Per information in the advertised notice of public hearing, copy below, the deadline for submitting written comments closed yesterday at noon. If you wish to comment on the agenda item, you may do so during the public hearing this evening.

PUBLIC COMMENT PRIOR TO THE MEETING:
Public comments may be submitted via email to Planningclerk@co.humboldt.ca.us. Please provide the project title, record or case number and date of the hearing. The deadline for submitting written comments is 12:00 p.m. Wednesday, April 20, 2022. After the deadline, written comments may be submitted to the commission in person during the meeting. Verbal comments may be made in person, or on zoom. Comments received after the agenda is posted on Friday, April 15, 2022, can be found at the "Attachments" section of the "Meeting Details" link next to the posted Agenda at: https://humboldt.legistar.com, and will be included with the administrative record. If you do not have access to email, contact the planning clerk at 707-268-3702. Please note that each Zoom meeting has a unique meeting ID and password. Any item on this agenda that is continued to a future date will use the meeting ID and password applicable to the date the agenda item is to be heard again.

Thank you.

Regards,

Des

From: robie tenorio <robieinthegarden@gmail.com>
Sent: Wednesday, April 20, 2022 3:37 PM
To: Johnston, Desmond <djohnston@co.humboldt.ca.us>
Subject: Blocksburg Family Farm, LLC Record Number: PLN-12265-CUP Assessor's Parcel Number (APN): 217-471-001

> **Caution:** This email was sent from an EXTERNAL source. Please take care when clicking links or opening attachments.

Dear Mr Johnston,

I am contacting you as the planner for:

Blocksburg Family Farm, LLC
Record Number: PLN-12265-CUP
Assessor's Parcel Number (APN): 217-471-001

Recently this application came before the Planning Commission and we submitted comments with our concerns.
And requested any revised environmental documents.
We just submitted comments again for the hearing on April 21st. Our comments were based on the information in the Staff report on the posted Agenda.
Where is the revised IS/MND?
I do not see it as an attachment. Is this Revised IS/MND available elsewhere?

Would you please send me the Revised.

Thank you,
Robie Tenorio

April 14, 2022

Humboldt County Planning Department
Attn: Desmond Johnson
3015 H Street
Eureka, CA 95501

HUMBOLT COUNTY (COUNTY), MITIGATED NEGATIVE DECLARATION (MND) FOR THE BLOCKSBURG FAMILY FARM, LLC PROJECT (PROJECT); SCH #2021110058

Dear Mr. Desmond Johnson:

Thank you for the opportunity to review the Mitigated Negative Declaration for the proposed Project. The State Water Resources Control Board, Division of Drinking Water (State Water Board, DDW) is responsible for issuing water supply permits pursuant to the Safe Drinking Water Act. A project requires a permit if it includes water system consolidation or changes to a water supply source, storage, or treatment or a waiver or alternative from Waterworks Standards (California Code of Regulations (CCR) title 22, chapter 16 et. seq). The above referenced Project may require a new or amended water supply permit.

The State Water Board, DDW, as a responsible agency under CEQA, has the following comments on the County's current draft MND:

- The State Water Board, DDW regulates public water systems in Humboldt County. ""Public water system" means a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year." (Health and Safety Code, division 104, part 12, chapter 4, article 1, section 116275 [h]).
    - The document indicates "Employees will number between (6) and twenty-five (25) depending on the Phase and the planting schedule" (PDF page 11). The document also indicates, "Water will be used during project operations to irrigate crops and provide water for drinking, sinks, and toilets."
        - If the proposed Project will meet the definition of a public water system,
            - Describe the existing and proposed drinking water infrastructure
            - Under the State Water Resources Control Board (SWRCB) add "Water supply permit" to "Primary (not comprehensive) Permits and Approvals:" (PDF Page 6).

Once the MND is adopted, please forward the following items in support of Blocksburg Family Farm's permit application to the State Water Board, DDW Klamath District Office to DWPDIST01@waterboards.ca.gov:

- Copy of the draft and final MND that also includes the Mitigation Monitoring and Reporting Plan, and any comment letters received and the lead agency responses as appropriate;
- Copy of the Resolution or Board Minutes adopting the MND; and
- Copy of the stamped Notice of Determination filed at the Humboldt County Clerk's Office and the Governor's Office of Planning and Research, State Clearinghouse.

Please contact Lori Schmitz of the State Water Board at (916) 449-5285 or Lori.Schmitz@waterboards.ca.gov, if you have any questions regarding State Water Board CEQA comments.

Sincerely,

Lori Schmitz

Lori Schmitz
Environmental Scientist
Division of Financial Assistance
Special Project Review Unit
1001 I Street, 16th floor
Sacramento, CA 95814

Cc:

Office of Planning and Research, State Clearinghouse

Barry Sutter
District Engineer
Klamath District

Holder Law Group
holderecolaw.com
1980 Mountain Blvd.., Ste. 211
Oakland, CA 94611
(510) 338-3759
jason@holderecolaw.com

April 20, 2022

VIA EMAIL ONLY (PLEASE CONFIRM RECEIPT

County of Humboldt
Humboldt County Planning Commission
Hon. Alan Bongio, Chair
Planningclerk@co.humboldt.ca.us

Humboldt County Planning Department
Attn: John Ford, Planning Director
Desmond Johnston, Supervising Planner
Email: jford@co.humboldt.ca.us;
djohnston@co.humboldt.ca.us

Re: **Follow Up Comments Concerning Blocksburg Family Farm, LLC Conditional Use Permits for Approximately Six Acres of Commercial Cannabis Propagation, Cultivation and Processing** (PLN-12265-CUP; APN: 217-471-001)

On behalf of Citizens for a Sustainable Humboldt ("CSH") and the Northcoast Environmental Center ("NEC"), we are writing to object to placing the above-referenced industrial scale commercial cannabis project (the "Project") back on the Planning Commission agenda before staff have fully addressed the substantial and supported comments submitted by CSH & NEC, the California Department of Fish and Wildlife ("CDFW"), and the California Department of Cannabis Control "CDCC").

The Staff Report for this Project ignores multiple substantive comments concerning, *inter alia*, the Project's intended water supply and the adequacy of its access road under the County's SRA Fire Safe Regulations.[1] One must ask, why does staff ignore comments pointing out (with supporting evidence), for example, how the pump tests conducted for the Project's wells did not satisfy the County's own regulatory standards?[2] As CSH and NEC stated in their Prior Comments, without this and other critical information it is impossible to determine long-term sustained yield of the wells. In the face of such uncertain water supplies, alternative sources must be identified and their impacts analyzed pursuant to CEQA. This is just one example of the numerous areas of incomplete impact analysis.

[1] *See* attachment to Agenda Item Transmittal for April 21, 2022 Planning Commission meeting, Agenda Item G.2. ("Staff Report"), Prior Comments, pp. 5-16 (pp. 108-119 of Staff Report .pdf).

[2] *See* Staff Report, p. 5 ["Water is presently sourced from an existing, onsite non-diversionary well that has a production rate of 28 gallons/minute, as established in a recent drawdown pump test"]. CSH and NEC pointed out in the Prior Comments how this pump test was not conducted in the dry season as clearly specified in County regulations and guidance documents. This staff report includes the same unsupported statement, completely disregarding the Prior Comments.

The Staff Report describes the access road as a "driveway" and the IS/MND vaguely describes the required emergency vehicle "turnaround" required under the County's SRA Fire Safe Regulations (see § 3112-7). Neither the Staff Report nor the IS/MND address whether this turnaround, as designed, satisfies the regulatory requirements. Neither the Staff Report nor the IS/MND address whether the access "driveway" adheres to the requirements for dead end roads set forth in Humboldt County Code, § 3112-11.[3] As previously explained, access roads that do not satisfy the minimum standards of the SRA Fire Safe Regulations can exacerbate the risk of wildfire and can impact public services.

Based on the information and analysis provided in the Initial Study / Mitigated Negative Declaration ("IS/MND") for this Project and in the staff reports, County staff have not conclusively ruled out the potential for significant environmental impacts, as is required to proceed with a n MND.[4] An Environmental Impact Report ("EIR") may therefore be required. CSH and NEC raised this issue in their initial comments as follows:

> The public cannot meaningfully evaluate and comment on the Project and its potentially significant impacts without this and other missing basic information (e.g., dry season well pump tests and a description of access road pinch points). In addition, because the IS/MND lacks essential information regarding the Project's potentially significant impacts, there is no evidence to support the necessary conclusion that the Project will "clearly" have a less-than-significant impact on the environment.

The Staff Report does not address this important issue. An EIR may be appropriate here, given that this large-scale commercial project (involving, at build-out, 6.39 acres of cultivation, up to twenty-five (25) employees, and approximately 3,157,826 gallons of water annually).

Finally, CSH and NEC must address the issue of procedural fairness and due process. The staff report repeatedly characterizes the comments as "late." This characterization is incomplete and, unfortunately, ironic. After reviewing the staff report for the Project prior to the last meeting in March (which staff report presented new information and analysis not provided in the IS/MND)[5], CSH and NEC directed the undersigned to submit comments

[3] For example, dead end roads are supposed to have turnarounds at their terminus. (HCC, § 3112-11(c).) The access roads for this Project do not appear to comply with this mandatory standard. (*See* Appendix A to IS/MND, Parcel Overview map.) Neither the staff report nor the IS/MND identify and address this obvious inconsistency.

[4] *See* Pub. Resources Code, §§ 21064.5, 21080(c), 21157.; *see also* 14 C.C.R. (CEQA Guidelines) § 15064(f), 15065(b)(1), 15070(b)(1); *see also*, *e.g.*, *San Bernardino Valley Audubon Soc'y v. Metro. Water Dist.* (1999) 71 Cal.App.4th 382, 391 ["CEQA allows the use of a mitigated negative declaration only where the mitigation measures modify the potentially significant impacts of the Project "to a point where clearly no significant effects would occur…" [Citation.] If significant effects remain after mitigation, an EIR is required"], quoting CEQA Guidelines, § 15070(b)(1).)

[5] *See*, *e.g.*, Agenda Item Transmittal for March 3, 2022 Planning Commission Meeting, Agenda Item H.1., p. 3-8 [staff summary]; *see also id.* at .pdf p. 71, Sensitive Natural Community Mitigation and Monitoring Plan; *see also id.*

concerning the inadequate analysis of potentially significant impacts. As is allowed, the comments responded to information presented just prior to the meeting in the staff report as well as the underlying analysis. In other words, CSH and NEC's Prior Comments were timely because staff presented new information in the initial staff report for this Project that amended the analysis in the IS/MND.

The Staff Report presented for consideration at the April 21st meeting includes still more new information not previously presented to the public.[6] The public has an absolute right to comment on this new information and analysis (not presented in the IS/MND) and should be afforded a reasonable opportunity to do so in order for their feedback to be considered. It is disingenuous, at best, for staff to criticize so called "late" comments concerning new information presented in staff's reports to the Planning Commission. If staff attempts to "cure" the glaring defects in the analysis (or ignore substantive and supported Prior Comments), they should expect comments from the concerned public. By criticizing substantiated and relevant public comments as "late" rather than addressing the substance of the comments in their entirety, staff downplays the comments. This approach conflicts with the important participation role the public is afforded under CEQA.[7]

Staff regularly make it a practice to present new substantive analysis at the last minute, giving the public little time to review and weigh in on the analysis. For example, in our experience, staff regularly schedules consideration of projects for approval at the tail end of the respective IS/MND comment period, preventing staff from considering comments received as they draft staff reports and shortchanging the decision-makers' ability to consider timely public comments. In fact, the comment period for the revised IS/MND for this Project ended on April 18th, several days after the staff report for the Project was released. This now-familiar timing once again precluded inclusion of any comments on the revised IS/MND in the agenda package for this Project. The pattern of routinely issuing staff reports before the close of public comments (1) demonstrates that staff have not considered public feedback on environmental review documents before making recommendations to the Planning Commission and (2) strongly suggests that staff intend to prevent Planning Commissioners from timely considering relevant public comments on environmental review documents. Staff could easily avoid this problematic situation by scheduling projects for consideration after the close of the respective public comment period (affording sufficient time to consider public comments, as appropriate

at pp. 13-17 [CEQA Findings re environmental impacts]; *see also id.* at p. 100 [email from Greg O'Connell at CDFW re IS/MND analysis].

[6] *See* Staff Report, p. 5 [new analysis concerning Governor's executive order regarding drought]; *see also id.* at p. 8 [description of "late" public comment]; *see also id.* at pp. 10-19 [revised Planning Commission Resolution, including revised CEQA Findings]. Note: Finding 6 at the top of p. 17 of the Staff Report is illegible.

[7] *See*, *e.g.*, PRC, § 21003(b); *see also* CEQA Guidelines, §§ 15002(a)(1), (4), (j), 15003(b), (d), (e),

under the circumstances). Staff's criticism of so-called "late" comments in its report is therefore misplaced and inappropriate.

* * *

CSH and NEC urge staff to carefully consider, and not disregarded and unfairly criticize, the substantive comments they helpfully provided concerning this Project's unanalyzed and unmitigated potentially significant environmental impacts. The timely substantiated comments they submitted (along with the comments from CDFW and CDCC) demonstrate the numerous ways in which this Project does not even satisfy the County's own standards and requirements, let alone CEQA's requirements for an informational document that reflects a "good faith effort at full disclosure." Staff must squarely address these inconsistencies – not brush them under the rug or criticize public commenters for pointing out inconsistencies with mandatory requirements that staff themselves should not allow in the first instance.

As explained in CSH and NEC's Prior Comments, this large-scale Project in a remote greenfield area requires much more robust analysis, most probably in the form of an EIR, before it can be considered for approval.

Very Truly Yours,

Jason Holder

cc: (Via e-mail only)
Client contacts

ATTACHMENT 10

Water Production Standards

WATER PRODUCTION STANDARDS AND TEST PROCEDURES

Purpose

The following standards apply to individual water supplies serving 1 to 4 service connections for proposed subdivisions, individual residences in the coastal zone, and accessory dwelling units where proof of water is needed in accordance with Humboldt County Code. These standards are intended to assure that development is consistent with the limitations of the parcel's water supply. Water production testing results shall be valid for a period of five (5) years without a comprehensive justification for extension from a Registered Geologist or a Registered Civil Engineer.

The water production test is necessary to identify the sustained yield of a water supply and demonstrate that the proposed source has sufficient, and sustainable, capacity to meet the minimum water supply requirements. However, water rights entitlements are not considered under this policy. Developers and owners must demonstrate compliance with applicable laws and regulations related to water resources during the development project evaluation.

Water production testing must be conducted in conformance with the procedures herein. Alternative testing procedures may be utilized if they yield equivalent results, have no greater impact to neighboring wells or surface waters, and are approved in writing by the Division of Environmental Health prior to the test.

WATER PRODUCTION STANDARDS

- For individual residences the minimum required water supply per residence from the source shall be 1.0 gallons per minute (gpm) per dwelling unit. This quantity may be reduced to a minimum of 0.5 gpm per dwelling unit if a minimum of 1,500 gallons of domestic water storage is provided for the residence. Note that this storage volume must be dedicated to domestic use and does not include storage for fire suppression, if required.

- Minimum required water supply for commercial, institutional, and industrial facilities shall be determined by a licensed civil or mechanical engineer and accepted by the County Planning Department during project review. The procedure outlined in this document may be used to demonstrate specific capacity.

- Water production tests for springs and streams must be conducted by a Licensed Well Drilling Contractor (C-57), Licensed Land Surveyor, Registered Civil Engineer, Registered Geologist, or Registered Environmental Health Specialist. Other qualified consultants may conduct water production tests if they obtain prior written approval from the Division of Environmental Health.

- Well production tests must be conducted by a Licensed Well Drilling Contractor (C-57), Registered Civil Engineer, or Registered Geologist. Other qualified consultants may conduct water production tests if they obtain prior written approval from the Division of Environmental Health.

- All water production tests must be conducted during the dry season and be representative of the lowest annual water production anticipated from the source. The dry season testing period is August 1 through September 30. The period may be modified, extended, or terminated by the Division of Environmental Health during periods of unusual rainfall.

- The Division of Environmental Health may waive or modify the dry season testing requirement on a case-by-case basis where adequate documentation is presented to determine adequate water supply is available, accessible and sustainable for the proposed development.

- Requests for waivers, modifications, or proposals for alternative testing procedures must be submitted in writing with appropriate supporting information.

- In cases, where extraction may have long term impacts to surface and/or groundwater supplies in areas identified as Critical Watershed Areas or Critical Water Supply Areas, by the Humboldt County Board of Supervisors, an analysis of impacts from a certified hydrogeologist may be required.

WATER PRODUCTION TEST PROCEDURES

Streams and Springs: Where Water Overflows the Collection Facility

The water tester shall measure the time required to fill a container of a known volume (minimum size two (2) gallons) to determine the source water flow rate in gallons per minute. At least three measurements must be made to complete a test. If the rates vary considerably (by more than 33 percent), a minimum of ten measurements must be taken to complete a test. The average of the recorded measurements shall be considered the test production rate. A minimum of three (3) tests shall be taken, each spaced at least seven (7) days apart.

Wells and Springs: Where Water Must Be Pumped from The Collection Facilities

The static or non-pumping water level shall be established prior to the start of the test, and the volume stored in the well or spring shall be calculated. For existing wells, it may be necessary to prohibit pumping 12 to 24 hours prior to beginning the test. For newly developed wells, production testing shall commence no sooner than 7-days following well development.

A sustained yield, metered pump test is required for pumped water sources for a minimum specified time period of 12 hours for water systems with 1-2 connections, 24 hours for water systems with 3-4 connections, and 72 hours for systems with 5 or more connections. Note: also refer to Section 64563 of the California Code of Regulations for systems with 5 or more connections.

When multiple sources are proposed to provide the minimum water supply for a shared water system each source shall be tested simultaneously.

Water pumped from the water source during testing shall be conserved by storage or routed to a recharge/discharge area beyond the influence of the pump test (minimum 200 feet from well). The pump shall be set at the depth of the lowest producing zone of the spring or well. During the initial stage of the production test, a volume of water equivalent to the calculated volume stored in the well or spring shall be removed as quickly as possible.

During the test, the pumping water level (drawdown) and discharge rate shall be measured according to the following schedule:

Time since pumping initiated (including pumping to remove stored volume)	Time Interval
0 to 10 minutes	Record every 1 minute
10 to 45 minutes	Record every 5 minutes
45 to 90 minutes	Record every 15 minutes
90 to 180 minutes	Record every 30 minutes
180 minutes to end of test	Record every 1 hour

Should the measurements not be made exactly at the time specified, the actual time of each measurement shall be recorded.

Once the calculated volume stored in the spring or well is removed, the water source shall be pumped at a flow rate equal to or greater than the minimum required flow for a duration equal to or greater than the minimum specified time period. If the pump breaks suction at a flow rate higher than the minimum requirement, the pumping rate may be slowly decreased to not less than the minimum required supply flow. Each time the pump breaks suction, the pumping rate shall be reduced by a minimum of 5 percent to a rate that allows the pump to continuously operate. The well shall be pumped at this rate until the drawdown stabilizes for a minimum of 3 consecutive hours. The discharge rate and drawdown, thus established, shall be maintained until the 3 hour drawdown stabilization concludes or the minimum test duration expires, whichever is longer. If the pump breaks suction at or below the minimum required water supply rate, the test fails.

For water well sources, the minimum required pump test duration may be reduced to a minimum specified time period of 8 hours for water systems with 1-2 connections or 16 hours for water systems with 3-4 connections if, after at least 4 hours of pumping, the following conditions are met:

- the pump never breaks suction with the pumping water level
- the specific capacity (pump rate divided by drawdown) is greater than 0.05

For both spring and water well sources, the 72 hour test duration for sources serving 5 or more connections may be modified by the Division of Environmental Health if sufficient justification is provided in writing by the qualified test conductor; in no case shall the 72 hour test be reduced to less than 48 hours.

On completion of pumping, the final discharge rate and pumping water level shall be recorded, and post-test recovery measurements shall begin. Recovery measurements shall be made according to the above drawdown schedule until the water source recovers to 95% of the original static water level or until a maximum duration of 72 hours is completed, whichever is sooner. If a 95% recovery cannot be obtained within 72 hours following the pump test, the water source's yield is inadequate to support the proposed development.

All measurements shall be recorded and reported with the highest degree of accuracy. All data and information pertinent to the project shall be submitted on a form(s) prepared by, or approved by, the Division of Environmental Health (see Attachments 1 and 2) and accompanied by a summary report of the testing. The summary report shall include a site plan encompassing all existing, and proposed, developments and all hydrologic features within 1000 feet of each water source being tested.

Drawdown effects on all wells within 300 feet of the proposed production well, or spring, must be evaluated and disclosed. Impacts to flow rates, static water level and recovery of neighboring wells greater than 5% shall not be approved as demonstration of adequate water supplies. Additionally, an adequate water supply pump test shall not have an impact to neighboring wells with less than 1.0 gpm per connection, within 300 feet, greater than 1%.

Effective 07/30/2021

(Attachment 1) **DRY WEATHER WATER PRODUCTION TEST DRAWDOWN DATA**

Owner: _____ **APN:** _____

Well Location latitude: **longitude:**

_____1/4	_____1/4	_____1/4	**Section:** _____	**Township** _____ N / S	**Range** _____ E / W

Type of Water Measuring Equipment: _____ **Date Test Performed:** _____

Company Performing Test: _____ **Measured By**: _____

TIME DATA	WATER LEVEL DATA	DISCHARGE DATA
PUMP ON Date:_____ Time: _____ (t_0) **PUMP OFF** Date: _____ Time: _____ (t_1) **DURATION OF AQUIFER TEST** Pumping: _____ Recovery: _____	**STATIC WATER LEVEL:** _____ **MEASURING POINT:** _____ **HEIGHT OF MEASURING POINT ABOVE GROUND:** _____	**HOW WAS DISCHARGE MEASURED?** _____ **DEPTH OF PUMP/AIRLINE:** _____

Pumping Data: **Specific Capacity:**

Date	Clock Time	Time Since Pump Started (min.) t_0	Pumping Water Level Measurement (ft)	Pump Rate (discharge) gpm	Comments on Factors Affecting Test Data

(Attachment 2) **DRY WEATHER WATER PRODUCTION TEST RECOVERY DATA**

Owner: _____ **APN:** _____

Well Location latitude: **longitude:**

_____1/4	_____1/4	_____ 1/4	**Section:** _____	**Township** _____ N / S	**Range** _____ E / W

Type of Water Measuring Equipment: _____ **Date Test Performed:** _____

Company Performing Test: _____ **Measured By**: _____

TIME DATA	WATER LEVEL DATA	DISCHARGE DATA
PUMP ON Date:_____ Time: _____ (t_0) **PUMP OFF** Date: _____ Time: _____ (t_1) **DURATION OF AQUIFER TEST** Pumping: _____ Recovery: _____	**STATIC WATER LEVEL:** _____ **MEASURING POINT:** _____ **HEIGHT OF MEASURING POINT ABOVE GROUND:** _____	**HOW WAS DISCHARGE MEASURED?** _____ **DEPTH OF PUMP/AIRLINE:** _____

Recovery Data:

Date	Clock Time	Time Since Pump Shutoff (min.) t_1	Recovery Water Level Measurement (ft)	Comments on Factors Affecting Test Data

ATTACHMENT 11

State Fire Safe Regulations

SRA Fire Safe Regulations

Board of Forestry and Fire Protection

FOR INFORMATIONAL USE ONLY
View the official California Code of Regulations online at
govt.westlaw.com/calregs

As of July 28, 2020

California Code of Regulations
Title 14 Natural Resources
Division 1.5 Department of Forestry
Chapter 7 - Fire Protection
Subchapter 2 SRA Fire Safe Regulations

Articles 1-5

Contents

Article 1 Administration

§ 1270.00. Title

These regulations shall be known as the "SRA Fire Safe Regulations," and shall constitute the basic wildfire protection standards of the California Board of Forestry and Fire Protection.

§ 1270.01. Purpose

(a) These regulations have been prepared and adopted for the purpose of establishing minimum wildfire protection standards in conjunction with building, construction and development in the State Responsibility Area (SRA).
(b) The future design and construction of structures, subdivisions and developments in the SRA shall provide for basic emergency access and perimeter wildfire protection measures as specified in the following articles.
(c) These measures shall provide for emergency access; signing and building numbering; private water supply reserves for emergency fire use; and vegetation modification. The fire protection standards which follow shall specify the minimums for such measures.

§ 1270.02. Scope

(a) These regulations shall apply to:

(1) the perimeters and access to all residential, commercial, and industrial building construction within the SRA approved after January 1, 1991 except as set forth below in subsections (b.)through (d), inclusive, and (f);

(2) the siting of newly installed commercial modulars, manufactured homes, mobilehomes, and factory-built housing, as defined in Health and Safety Code sections 18001.8, 18007, 18008, and 19971, except where being sited or installed as an accessory or junior accessory dwelling unit as set forth in subsection (d) below; (3) all tentative and parcel maps or other developments approved after January 1, 1991; and

(4) applications for building permits on a parcel approved in a pre-1991 parcel or tentative map to the extent that conditions relating to the perimeters and access to the buildings were not imposed as part of the approval of the parcel or tentative map.

(b) These regulations do not apply where an application for a building permit is filed after January 1, 1991 for building construction on a parcel that was formed from a parcel map or tentative map (if the final map for the tentative map is approved within the time prescribed by the local ordinance) approved prior to January 1, 1991, to the extent that conditions relating to the perimeters and access to the buildings were imposed by the parcel map or final tentative map approved prior to January 1, 1991.

(c)(1) At the discretion of the local jurisdiction, and subject to any requirements imposed by the local jurisdiction to ensure reasonable ingress, egress, and capacity for evacuation and emergency response during a wildfire, these regulations shall not apply to the reconstruction or repair of legally constructed residential, commercial, or industrial buildings due to a wildfire, to the extent that the reconstruction or repair does not:

(A) increase the square footage of the residential, commercial, or industrial building or buildings that previously existed; or

(B) change the use of the building or buildings that had existed previously; or

(C) construct a new building or buildings that did not previously exist on the site.

(2) Nothing in this subsection shall be construed to alter the extent to which these regulations apply to the reconstruction or repair of a legally constructed residential, commercial, or industrial building for reasons unrelated to a wildfire.

(d) These regulations do not apply to the creation of accessory or junior accessory dwelling units that comply with Government Code sections 65852.2 or 65852.22, or any local

ordinances enacted thereunder, as applicable, including any local ordinances requiring provisions for fire and life safety.
(e) Unless otherwise exempt pursuant to this subchapter, affected activities include, but are not limited to:

(1) permitting or approval of new parcels, excluding lot line adjustments as specified in Government Code (GC) section 66412(d);
(2) application for a building permit for new building construction;
(3) application for a use permit; and
(4) road construction.

(f) EXEMPTION: Roads used solely for agricultural, mining, or the management and harvesting of wood products.

§ 1270.03. Provisions for Application of These Regulations.

This subchapter shall be applied as follows:
(a) the local jurisdictions shall provide the Director of the California Department of Forestry and Fire Protection (CAL FIRE) or their designee with notice of applications for building permits, tentative parcel maps, tentative maps, and installation or use permits for construction or development within the SRA.
(b) the Director or their designee may review and make fire protection recommendations on applicable construction or development permits or maps provided by the local jurisdiction.
(c) the local jurisdiction shall ensure that the applicable sections of this subchapter become a condition of approval of any applicable construction or development permit or map.

§ 1270.04. Local Ordinances.

(a) Nothing contained in these regulations shall be considered as abrogating the provisions of any ordinance, rule or regulation of any state or local jurisdiction provided that such ordinance, rule, or regulation is equal to or exceeds these minimum standards.
(b) Counties may submit their local ordinances for certification via email to the Board, and the Board may certify them as equaling or exceeding these regulations when they provide the same practical effect. If the Board determines that the local requirements do not equal or exceed these regulations, it shall not certify the local ordinance.
(c) When the Board grants certification, the local ordinances, in lieu of these regulations, shall be applied as described in 14 CCR § 1270.02 and used as the basis for inspections performed under 14 CCR § 1270.05.
(d) The Board's certification of local ordinances pursuant to this section is rendered invalid when previously certified ordinances are subsequently amended by local jurisdictions, or the regulations are amended by the Board, without Board re-certification of the amended ordinances. The Board's regulations supersede the amended local ordinance(s) when the amended local ordinance(s) are not re-certified by the Board. Amendments made by local jurisdictions to previously certified ordinances shall be submitted for re-certification.

§ 1270.05. Inspections.

Inspections shall conform to the following requirements:
(a) Inspection shall be made by:

(1) the Director, or
(2) local jurisdictions that have assumed state fire protection responsibility on SRA lands, or
(3) local jurisdictions where the inspection duties have been formally delegated by CAL FIRE to the local jurisdiction.

(b) Nothing in this section abrogates CAL FIRE's authority to inspect and enforce state forest and fire laws even when the inspection duties have been delegated pursuant to this section.
(c) Reports of violations shall be provided to the CAL FIRE Unit headquarters that administers SRA fire protection in the local jurisdiction.
(d) When inspections are conducted, they shall occur prior to: the issuance of the use permit or certificate of occupancy; the recordation of the parcel map or final map; the filing of a notice of completion; or the final inspection of any project or building permit.

§ 1270.06. Exceptions to Standards.

(a) Upon request by the applicant, exceptions to standards within this subchapter or to local jurisdiction certified ordinances may be allowed by the inspection entity listed in 14 CCR § 1270.05, where the exceptions provide the same practical effect as these regulations towards providing defensible space. Exceptions granted by the inspection entity listed in 14 CCR § 1270.05 shall be made on a case-by-case basis only. Exceptions granted by the inspection entity listed in 14 CCR § 1270.05 shall be forwarded to the appropriate CAL FIRE Unit Office that administers SRA fire protection in that county and shall be retained on file at the Unit Office.
(b) Requests for an exception shall be made in writing to the inspection entity listed in 14 CCR § 1270.05 by the applicant or the applicant's authorized representative. At a minimum, the request shall state the specific section(s) for which an exception is requested, material facts supporting the contention of the applicant, the details of the exception proposed, and a map showing the proposed location and siting of the exception. Local jurisdictions listed in 14 CCR section 1270.05 may establish additional procedures or requirements for exception requests.
(c) Where an exception is not granted by the inspection entity, the applicant may appeal such denial to the local jurisdiction. The local jurisdiction may establish or utilize an appeal process consistent with existing local building or planning department appeal processes.
(d) Before the local jurisdiction makes a determination on an appeal, the inspection authority shall be consulted and shall provide to that local jurisdiction documentation outlining the effects of the requested exception on wildfire protection.
(e) If an appeal is granted, the local jurisdiction shall make findings that the decision meets the intent of providing defensible space consistent with these regulations. Such findings shall include a statement of reasons for the decision. A written copy of these findings shall be provided to the CAL FIRE Unit headquarters that administers SRA fire protection in that local jurisdiction.

§ 1271.00. Definitions

Agriculture: Land used for agricultural purposes as defined in a local jurisdiction's zoning ordinances.
Building: Any structure used or intended for supporting or sheltering any use or occupancy, except Utility and Miscellaneous Group U buildings.
CAL FIRE: California Department of Forestry and Fire Protection.
Dead-end road: A road that has only one point of vehicular ingress/egress, including cul-de-sacs and looped roads.
Defensible space: The area within the perimeter of a parcel, development, neighborhood or community where basic wildland fire protection practices and measures are implemented, providing the key point of defense from an approaching wildfire or defense against encroaching wildfires or escaping structure fires. The perimeter as used in this regulation is the area encompassing the parcel or parcels proposed for construction and/or development, excluding the physical structure itself. The area is characterized by the establishment and

maintenance of emergency vehicle access, emergency water reserves, road names and building identification, and fuel modification measures.
Development: As defined in section 66418.1 of the California Government Code.
Director: Director of the Department of Forestry and Fire Protection or their designee.
Driveway: A vehicular access that serves up to two (2) parcels with no more than two (2) residential units and any number of non-commercial or industrial buildings on each parcel.
Distance Measurements: All specified or referenced distances are measured along the ground, unless otherwise stated.
Exception: An alternative to the specified standard requested by the applicant that may be necessary due to health, safety, environmental conditions, physical site limitations or other limiting conditions, such as recorded historical sites, that provides mitigation of the problem.
Fire valve: see hydrant.
Fuel modification area: An area where the volume of flammable vegetation has been reduced, providing reduced fire intensity and duration.
Greenbelts: A facility or land-use, designed for a use other than fire protection, which will slow or resist the spread of a wildfire. Includes parking lots, irrigated or landscaped areas, golf courses, parks, playgrounds, maintained vineyards, orchards or annual crops that do not cure in the field.
Hammerhead/T: A road or driveway that provides a "T" shaped, three-point turnaround space for emergency equipment, being no narrower than the road that serves it.
Hydrant: A valved connection on a water supply or storage system, having either one two and a half (2 1/2) inch or one four and a half (4 1/2) inch outlet, with male American National Fire Hose Screw Threads (NH), used to supply fire apparatus and hoses with water.
Local Jurisdiction: Any county, city/county agency or department, or any locally authorized district that issues or approves building permits, use permits, tentative maps or tentative parcel maps, or has authority to regulate development and construction activity.
Occupancy: The purpose for which a building, or part thereof, is used or intended to be used.
One-way road: A minimum of one traffic lane width designed for traffic flow in one direction only.
Residential unit: Any building or portion thereof which contains living facilities, including provisions for sleeping, eating, cooking and/or sanitation for one or more persons. Manufactured homes, mobilehomes, and factory-built housing are considered residential units for the purposes of mandatory measures required in 14 CCR § 1270.01(c), unless being sited or installed as an accessory or junior accessory dwelling unit in accordance with 14 CCR § 1270.02(d).
Road: Vehicular access to more than two (2) parcels; more than four (4) residential units; or access to any industrial or commercial occupancy. Includes public and private streets and lanes.
Road or driveway structures: Bridges, culverts, and other appurtenant structures which supplement the traffic lane or shoulders.
Same Practical Effect: As used in this subchapter, means an exception or alternative with the capability of applying accepted wildland fire suppression strategies and tactics, and provisions for fire fighter safety, including:
(a) access for emergency wildland fire equipment,
(b) safe civilian evacuation,
(c) signing that avoids delays in emergency equipment response,
(d) available and accessible water to effectively attack wildfire or defend a structure from wildfire, and
(e) fuel modification sufficient for civilian and fire fighter safety.
Shoulder: Vehicular access adjacent to the traffic lane.

State Board of Forestry and Fire Protection (Board): As defined in Public Resources Code section 730.
State Responsibility Area (SRA): As defined in Public Resources Code sections 4126-4127; and the California Code of Regulations, title 14, division 1.5, chapter 7, article 1, sections 1220-1220.5.
Structure: That which is built or constructed, an edifice or building of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner.
Subdivision: As defined in section 66424 of the Government Code.
Traffic lane: The portion of a road or driveway that provides a single line of vehicle travel.
Turnaround: A road or driveway, unobstructed by parking, which allows for a safe opposite change of direction for emergency equipment. Design of such area may be a hammerhead/T or terminus bulb.
Turnouts: A widening in a road or driveway to allow vehicles to pass.
Utility and Miscellaneous Group U building: A structure of an accessory character or a miscellaneous structure not classified in any specific occupancy permitted, constructed, equipped, and maintained to conform to the requirements of Title 24, California Building Standards Code.
Vertical clearance: The minimum specified height of a bridge or overhead projection above the road or driveway.
Wildfire: As defined in Public Resources Code Section 4103 and 4104.

Article 2 Emergency Access and Egress

§ 1273.00. Intent

Roads and driveways, whether public or private, unless exempted under 14 CCR § 1270.02(d), shall provide for safe access for emergency wildfire equipment and civilian evacuation concurrently, and shall provide unobstructed traffic circulation during a wildfire emergency consistent with 14 CCR §§ 1273.00 through 1273.09.

§ 1273.01. Width.

(a) All roads shall be constructed to provide a minimum of two ten (10) foot traffic lanes, not including shoulder and striping. These traffic lanes shall provide for two-way traffic flow to support emergency vehicle and civilian egress, unless other standards are provided in this article or additional requirements are mandated by local jurisdictions or local subdivision requirements. Vertical clearances shall conform to the requirements in California Vehicle Code section 35250.
(b) All one-way roads shall be constructed to provide a minimum of one twelve (12) foot traffic lane, not including shoulders. The local jurisdiction may approve one-way roads.
(1) All one-way roads shall, at both ends, connect to a road with two traffic lanes providing for travel in different directions, and shall provide access to an area currently zoned for no more than ten (10) residential units.
(2) In no case shall a one-way road exceed 2,640 feet in length. A turnout shall be placed and constructed at approximately the midpoint of each one-way road.
(c) All driveways shall be constructed to provide a minimum of one (1) ten (10) foot traffic lane, fourteen (14) feet unobstructed horizontal clearance, and unobstructed vertical clearance of thirteen feet, six inches (13' 6").

§ 1273.02. Road Surfaces

(a) Roads shall be designed and maintained to support the imposed load of fire apparatus weighing at least 75,000 pounds and provide an aggregate base.

(b) Driveways and road and driveway structures shall be designed and maintained to support at least 40,000 pounds.
(c) Project proponent shall provide engineering specifications to support design, if requested by the local authority having jurisdiction.

§ 1273.03. Grades

(a) At no point shall the grade for all roads and driveways exceed 16 percent.
(b) The grade may exceed 16%, not to exceed 20%, with approval from the local authority having jurisdiction and with mitigations to provide for same practical effect.

1273.04. Radius

(a) No road or road structure shall have a horizontal inside radius of curvature of less than fifty (50) feet. An additional surface width of four (4) feet shall be added to curves of 50-100 feet radius; two (2) feet to those from 100-200 feet.
(b) The length of vertical curves in roadways, exclusive of gutters, ditches, and drainage structures designed to hold or divert water, shall be not less than one hundred (100) feet.

§ 1273.05. Turnarounds

(a) Turnarounds are required on driveways and dead-end roads.
(b) The minimum turning radius for a turnaround shall be forty (40) feet, not including parking, in accordance with the figures in 14 CCR §§ 1273.05(e) and 1273.05(f). If a hammerhead/T is used instead, the top of the "T" shall be a minimum of sixty (60) feet in length.
(c) Driveways exceeding 150 feet in length, but less than 800 feet in length, shall provide a turnout near the midpoint of the driveway. Where the driveway exceeds 800 feet, turnouts shall be provided no more than 400 feet apart.
(d) A turnaround shall be provided on driveways over 300 feet in length and shall be within fifty (50) feet of the building.
(d) Each dead-end road shall have a turnaround constructed at its terminus. Where parcels are zoned five (5) acres or larger, turnarounds shall be provided at a maximum of 1,320 foot intervals.
(e) Figure A. Turnarounds on roads with two ten-foot traffic lanes.

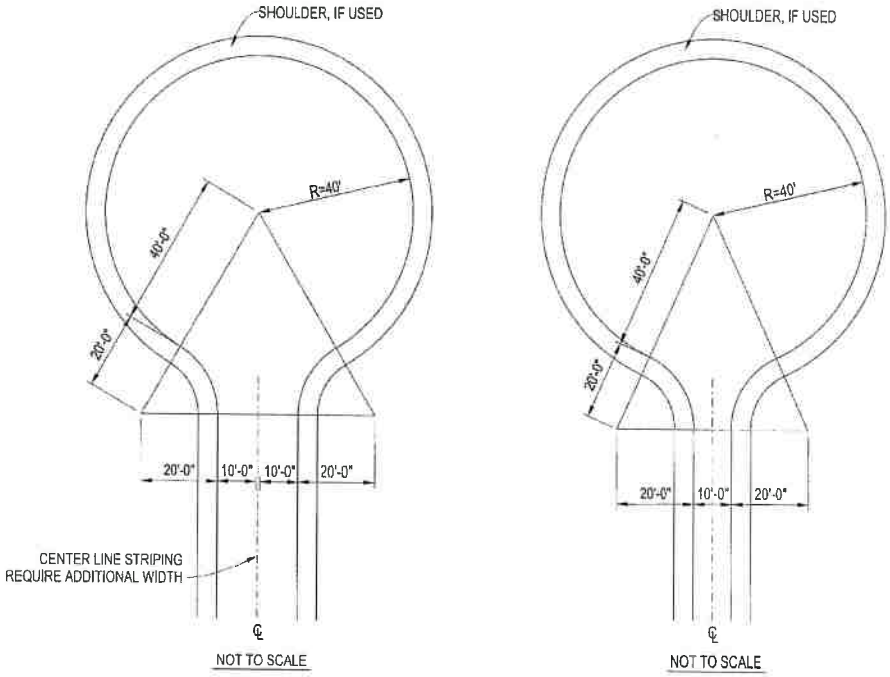

FIGURE FOR 14 CCR § 1273.05. TURNAROUND EXAMPLES

§ 1273.06. Turnouts

Turnouts shall be a minimum of twelve (12) feet wide and thirty (30) feet long with a minimum twenty-five (25) foot taper on each end.

§ 1273.07. Road and Driveway Structures

(a) Appropriate signing, including but not limited to weight or vertical clearance limitations, one-way road or single traffic lane conditions, shall reflect the capability of each bridge.
(b) Where a bridge or an elevated surface is part of a fire apparatus access road, the bridge shall be constructed and maintained in accordance with the American Association of State and Highway Transportation Officials Standard Specifications for Highway Bridges, 17th Edition, published 2002 (known as AASHTO HB-17), hereby incorporated by reference. Bridges and elevated surfaces shall be designed for a live load sufficient to carry the imposed loads of fire apparatus. Vehicle load limits shall be posted at both entrances to bridges when required by the local authority having jurisdiction.
(c) Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces which are not designed for such use, barriers, or signs, or both, as approved by the local authority having jurisdiction, shall be installed and maintained.
(d) A bridge with only one traffic lane may be authorized by the local jurisdiction; however, it shall provide for unobstructed visibility from one end to the other and turnouts at both ends.

§ 1273.08. Dead-end Roads

(a) The maximum length of a dead-end road, including all dead-end roads accessed from that dead-end road, shall not exceed the following cumulative lengths, regardless of the number of parcels served:
parcels zoned for less than one acre - 800 feet

parcels zoned for 1 acre to 4.99 acres - 1,320 feet
parcels zoned for 5 acres to 19.99 acres - 2,640 feet
parcels zoned for 20 acres or larger - 5,280 feet
All lengths shall be measured from the edge of the road surface at the intersection that begins the road to the end of the road surface at its farthest point. Where a dead-end road crosses areas of differing zoned parcel sizes requiring different length limits, the shortest allowable length shall apply.
(b) See 14 CCR § 1273.05 for dead-end road turnaround requirements.

§ 1273.09. Gate Entrances

(a) Gate entrances shall be at least two (2) feet wider than the width of the traffic lane(s) serving that gate and a minimum width of fourteen (14) feet unobstructed horizontal clearance and unobstructed vertical clearance of thirteen feet, six inches (13' 6").
(b) All gates providing access from a road to a driveway shall be located at least thirty (30) feet from the roadway and shall open to allow a vehicle to stop without obstructing traffic on that road.
(c) Where a one-way road with a single traffic lane provides access to a gated entrance, a forty (40) foot turning radius shall be used.
(d) Security gates shall not be installed without approval. Where security gates are installed, they shall have an approved means of emergency operation. Approval shall be by the local authority having jurisdiction. The security gates and the emergency operation shall be maintained operational at all times.

Article 3 Signing and Building Numbering

§ 1274.00. Intent

To facilitate locating a fire and to avoid delays in response, all newly constructed or approved roads and buildings shall be designated by names or numbers posted on signs clearly visible and legible from the road. This section shall not restrict the size of letters or numbers appearing on road signs for other purposes.

§ 1274.01. Road Signs.

(a) Newly constructed or approved roads must be identified by a name or number through a consistent system that provides for sequenced or patterned numbering and/or non-duplicative naming within each local jurisdiction. This section does not require any entity to rename or renumber existing roads, nor shall a road providing access only to a single commercial or industrial occupancy require naming or numbering.
(b) The size of letters, numbers, and symbols for road signs shall be a minimum four (4) inch letter height, half inch (.5) inch stroke, reflectorized, contrasting with the background color of the sign.

§ 1274.02. Road Sign Installation, Location, and Visibility.

(a) Road signs shall be visible and legible from both directions of vehicle travel for a distance of at least one hundred (100) feet.
(b) Signs required by this article identifying intersecting roads shall be placed at the intersection of those roads.
(c) A sign identifying traffic access or flow limitations, including but not limited to weight or vertical clearance limitations, dead-end roads, one-way roads, or single lane conditions, shall be placed:
(i) at the intersection preceding the traffic access limitation, and

(ii) no more than one hundred (100) feet before such traffic access limitation.
(d) Road signs required by this article shall be posted at the beginning of construction and shall be maintained thereafter.

§ 1274.03. Addresses for Buildings.

(a) All buildings shall be issued an address by the local jurisdiction which conforms to that jurisdiction's overall address system. Utility and miscellaneous Group U buildings are not required to have a separate address; however, each residential unit within a building shall be separately identified.
(b) The size of letters, numbers, and symbols for addresses shall conform to the standards in the California Fire Code, California Code of Regulations title 24, part 9.
(c) Addresses for residential buildings shall be reflectorized.

§ 1274.04. Address Installation, Location, and Visibility.

(a) All buildings shall have a permanently posted address which shall be plainly legible and visible from the road fronting the property.
(b) Where access is by means of a private road and the address identification cannot be viewed from the public way, an unobstructed sign or other means shall be used so that the address is visible from the public way.
(c) Address signs along one-way roads shall be visible from both directions.
(d) Where multiple addresses are required at a single driveway, they shall be mounted on a single sign or post.
(e) Where a road provides access solely to a single commercial or industrial business, the address sign shall be placed at the nearest road intersection providing access to that site, or otherwise posted to provide for unobstructed visibility from that intersection.
(f) In all cases, the address shall be posted at the beginning of construction and shall be maintained thereafter.

Article 4 Emergency Water Standards

§ 1275.00. Intent

Emergency water for wildfire protection shall be available, accessible, and maintained in quantities and locations specified in the statute and these regulations in order to attack a wildfire or defend property from a wildfire.

§ 1275.01. Application

The provisions of this article shall apply in the tentative and parcel map process when new parcels are approved by the local jurisdiction having authority.

§ 1275.02. Water Supply.

(a) When a water supply for structure defense is required to be installed, such protection shall be installed and made serviceable prior to and during the time of construction except when alternative methods of protection are provided and approved by the local authority having jurisdiction.
(b) Water systems equaling or exceeding the California Fire Code, California Code of Regulations title 24, part 9, or, where a municipal-type water supply is unavailable, National Fire Protection Association (NFPA) 1142, "Standard on Water Supplies for Suburban and Rural Fire Fighting," 2017 Edition, hereby incorporated by reference, shall be accepted as meeting the requirements of this article.

(c) Such emergency water may be provided in a fire agency mobile water tender, or naturally occurring or man made containment structure, as long as the specified quantity is immediately available.
(d) Nothing in this article prohibits the combined storage of emergency wildfire and structural firefighting water supplies unless so prohibited by local ordinance or specified by the local fire agency.
(e) Where freeze or crash protection is required by local jurisdictions having authority, such protection measures shall be provided.

§ 1275.03. Hydrants and Fire Valves.

(a) The hydrant or fire valve shall be eighteen (18) inches above the finished surface. Its location in relation to the road or driveway and to the building(s) or structure(s) it serves shall comply with California Fire Code, California Code of Regulations title 24, part 9, Chapter 5, and Appendix C.
(b) The hydrant head shall be a two and half (2 1/2) inch National Hose male thread with cap for pressure and gravity flow systems and four and a half (4 1/2) inch for draft systems.
(c) Hydrants shall be wet or dry barrel and have suitable freeze or crash protection as required by the local jurisdiction.
§ 1275.04. Signing of Water Sources.
(a) Each hydrant, fire valve, or access to water shall be identified as follows:
(1) if located along a driveway, a reflectorized blue marker, with a minimum dimension of three (3) inches shall be located on the driveway address sign and mounted on a fire retardant post, or
(2) if located along a road,
(i) a reflectorized blue marker, with a minimum dimension of three (3) inches, shall be mounted on a fire retardant post. The sign post shall be within three (3) feet of said hydrant or fire valve, with the sign no less than three (3) feet nor greater than five (5) feet above ground, in a horizontal position and visible from the driveway, or
(ii) as specified in the State Fire Marshal's Guidelines for Fire Hydrant Markings Along State Highways and Freeways, May 1988.

Article 5 Fuel Modification Standards

§ 1276.00 Intent

To reduce the intensity of a wildfire by reducing the volume and density of flammable vegetation, the strategic siting of fuel modification and greenbelts shall provide for increased safety for emergency fire equipment and evacuating civilians by its utilization around structures and roads, including driveways, and a point of attack or defense from a wildfire.

§ 1276.01. Setback for Structure Defensible Space.

(a) All parcels shall provide a minimum thirty (30) foot setback for all buildings from all property lines and/or the center of a road.
(b) When a thirty (30) foot setback is not possible for practical reasons, which may include but are not limited to parcel dimensions or size, topographic limitations, or other easements, the local jurisdiction shall provide for same practical effect.
(i) Same practical effect requirements shall reduce the likelihood of home-to-home ignition.
(ii) Same practical effect options may include, but are not limited to, noncombustible block walls or fences; five (5) feet of noncombustible material horizontally around the

structure; installing hardscape landscaping or reducing exposed windows on the side of the structure with a less than thirty (30) foot setback; or additional structure hardening such as those required in the California Building Code, California Code of Regulations title 24, part 2, Chapter 7A.

(c) Structures constructed in the SRA are required to comply with the defensible space regulations in Title 14. Natural Resources Division 1.5. Department of Forestry and Fire Protection Chapter 7. Fire Protection Subchapter 3. Fire Hazard.

§ 1276.02. Maintenance of Defensible Space Measures.

To ensure continued maintenance of commonly owned properties in conformance with these standards and to assure continued availability, access, and utilization of the defensible space provided by these standards during a wildfire, provisions for annual maintenance shall be provided in emergency access covenants or similar binding agreements.

§ 1276.03 Disposal of Flammable Vegetation and Fuels

Disposal, including chipping, burying, burning or removal to a site approved by the local jurisdiction, of flammable vegetation and fuels caused by site development and construction, road and driveway construction, and fuel modification shall be completed prior to completion of road construction or final inspection of a building permit.

§ 1276.04 Greenbelts

Subdivision and other developments, which propose greenbelts as a part of the development plan, shall locate said greenbelts strategically as a separation between wildland fuels and structures. The locations shall be approved by the local authority having jurisdiction and may be consistent with the CAL FIRE Unit Fire Management Plan or Contract County Fire Plan.