



COUNTY OF LAKE
 COMMUNITY DEVELOPMENT DEPARTMENT
 Planning Division
 Courthouse - 255 N. Forbes Street
 Lakeport, California 95453

May 28, 2024

REVISED CALIFORNIA ENVIRONMENTAL QUALITY ACT ENVIRONMENTAL CHECKLIST FORM INITIAL STUDY (UP 23-05, IS 23-10)

- | | |
|--------------------------------------|---|
| 1. Project Title: | AG Forest Wood Processing Bioenergy Project (UP 23-05) |
| 2. Permit Numbers: | Major Use Permit UP 23-05 Initial Study IS 23-10 |
| 3. Lead Agency Name & Address: | County of Lake Community Development Department - Planning Division 255 North Forbes Street Lakeport, CA 95453 |
| 4. Contact Person: | Laura Hall, Senior Planner, (707) 263-2221 |
| 5. Project Location(s): | 755 E State Hwy 20, Upper Lake, CA (APN 004-010-04) |
| 6. Project Sponsor's Name & Address: | Scotts Valley Energy Corporation 1005 Parallel Drive Lakeport, CA 95453 |
| 7. General Plan Designation: | Rural Lands RL |
| 8. Zoning Designation: | "APZ" Agricultural Preserve Zone-"SC" Scenic Combining-"WW" Waterway-"FF" Floodway Fringe |
| 9. Supervisor District: | 3 |
| 10. Flood Zone: | X-Areas determined to be outside the 0.2% annual chance floodplain, 0.2 Pct Annual Change Flood Hazard, and AE-Area inundated by the Base Flood with Base Flood Elevations |
| 11. Slope: | 0 to 4% |
| 12. Wildfire Hazard: | Not in SRA |
| 13. Earthquake Fault Zone: | Yes |
| 14. Dam Failure Inundation Area: | N/A |
| 15. Parcel Size: | 42.60 |

16. PROJECT DESCRIPTION

Background and Purpose

The Scotts Valley Band of Pomo Indians (SVBPI) has received grant funding from the U.S. Department of Commerce's Economic Development Administration (EDA) to develop a facility to process and manage forest wood removed to lower fuel risk in Lake County from wildfires.

Biomass material will derive from the contractors that are removing biomass such as tree branches from powerline rights-of-way and operations from forest clearing for reduction of fuel resources to help protect communities.

This project will improve forest health and resiliency by providing alternatives to pile-burning of forest biomass. As a result, a reduction of greenhouse gas (GHG) emissions would occur. In addition, the project would also create employment opportunities for residents and supplement existing businesses in Lake County. The project agrees with California's Wildfire and Forest Resilience Action Plan, January 2021 (Attachment 9), as well as with California's 2022 Scoping Plan for Achieving Carbon Neutrality.

The Lake County Community Development Department (CDD), Planning Division has prepared this Initial Study/ Mitigated Negative Declaration (IS/MND) to evaluate potential environmental effects that may result from the proposed AG Forest Wood Processing project. Project activities would include constructing a facility to process and manage forest wood removed throughout the County to lower fuel risk from wildfires in communities. Biomass material would consist of tree branches from powerline rights-of-way and forest clearing. Contractors would deliver materials to the site. The project would result in the production of renewable energy which would be used to power the site and with the capability of serving down-stream users.

According to CEQA, the lead agency is the public agency with primary responsibility for carrying out or approving a project that has the potential for resulting, directly or indirectly, in a physical change to the environment (CEQA Guidelines Section 15367). The CDD Planning Division is responsible for taking discretionary action to consider approval of IS/MND and use permit. Attachment 1. Includes the Mitigation Monitoring & Reporting Program (MMRP).

Project Location

The project is located at 755 E State Hwy 20, Upper Lake in northwest Lake County (Figure 1). The 42.6-acre parcel is within Section 7, Township 15N, Range 10W, in the UGGS 7.5 Upper Lake Quadrant (Global Positioning System 39.15884, -122.89998). Adjacent peaks include Hogback Ridge to the east at 2600 feet and Sam Alley Ridge to the north at 2000 feet (Lake County, 2024) (Figure 1). Attachment 2 includes the project plans. Situated on a 42.6-acre parcel of land, the area to be used is 5 acres, located approximately 1,000 ft. to the southwest of the northern property line. The northern property line parallels State

Highway 20 with the eastern property corner located across from Old Lucerne Road. Lake County Watershed Protection District ("LCWPD") owns the parcel and has provided a long-term lease for the 5 acres (where project activities would occur) to SVBPI. The LCWPD also owns the 75-acre parcel to the south.

Environmental Setting

The project site is within the Upper Cache Watershed (Hydrologic Unit Code [HUC 18020116]), at Latitude 39.157827 N, Longitude -122.901689 W; and Township 15N, Range 9W, Section 7; MDB&M (Mount Diablo Base and Meridian). **According to USGS Topo maps, a** blueline stream that is tributary to Clear Lake flows from the north under State Highway 20 before entering the site **(please refer to Section IV which found no evidence of the unnamed stream)**. From the northwest it flows to the southeast and then flows south through a channel along the east side of the property line. Slopes at the site are 0 to 4 percent, ranging from 1,334 feet above mean sea level in the northwestern corner to 1,330 ft msl along the southern side of the overall parcel. The site was historically used for farming (vineyards) but has been fallow for several years. Currently, it is vegetated with blackberry thickets and other primarily nonnative vegetation (Lawrence Ray, 2023).

Environmental Commitment

The SVBPI is committed to minimizing the impact on project lands. As a result, the project will deploy non-permanent structures and equipment, which will be placed on site and secured in place. Note that no permanent foundations are planned, except for providing a foundation for a water storage tank that is needed to provide fire protection, ADA (Americans with Disabilities Act) parking, or other permanent facilities that may be required by the County in the permitting process. The steel structure (membrane canopy)¹ will be 40' wide x 60' long (2,400 sf) and constructed using a premanufactured-based building system, secured in place by ground screws and screened by conex/ cargo containers that also act as additional anchoring and storage for the facility. The membrane canopy structure will be a neutral natural coloration (selections of grey, tan, green are available). Where equipment must be anchored in place, it will be anchored using non-permanent systems, such as ground screws or equivalent.

Drainage (rainwater runoff) will be managed on-site, with less than 12% of the area for forest material management (5 of 41.6 acres [1,855,656 sf.]), and only 0.22% of the area as non-permeable (4,000 sf.). Runoff from the 2,400-sf membrane canopy structure with conex/cargo containers equaling another 1,600-sf will be managed through a surface-mounted drainage system will be in the gravel paver system with additional erosion control utilizing wattles, gravel, logs, and a bioretention area. Biological filtration will be used in areas that need protecting and will utilize rice husks and straw when needed.

¹ It should be noted that the term membrane canopy structure is used to refer to steel structure which will be covered with a membrane canopy, while the term facility generally refers to the entire operation.

Proposed Project

The facility will support the development of markets for locally derived forest biomass to support forest fuel reduction, improved ecological function, and other positive-impact forest management activities. Concurrently, the project will support new jobs and economic development activities/support revenue generation for the SVBPI. To this end, the facility will be designed to process, manage, and convert incoming forest biomass into usable materials for downstream products (renewable power generation and biochar carbon sequestering for soil amendment, and water and air filtration), while also enabling the conversion of biomass to 100% renewable electricity on-site.

Currently, forest biomass is allowed to be open controlled burned. The proposed project's operation would take that same material and process it to generate usable materials in renewable power generation or downstream products. Public Resources Code 4201-4204 directs the California Department of Forestry and Fire Protection (CAL FIRE) to map fire hazard within State Responsibility Areas (SRA). These zones, referred to as Fire Hazard Severity Zones (FHSZ), classify a wildland zone as Moderate, High, or Very High fire hazard based on the average hazard across the area included in the zone. According to CAL FIRE's State Responsibility Area Fire Hazard Severity Zones released on June 15, 2023, the majority of Lake County in the SRA area is classified as Very High (California Department of Forestry and Fire Protection, 2023). The biomass material coming from these areas of risk is important to manage and process and this proposed facility would meet that need. The facility will operate as a central forest wood management and processing system for forest thinning biomass collected throughout the area in and around Lake County.

This project aligns with SVBPI's commitment to environmental stewardship while supporting local and regional efforts to improve forest health, reduce the threat of catastrophic wildfires, and support in- region and sustainable economic and jobs development as discussed in Section 2.3.1.

Additionally, this project would help to implement the goals in the California's Wildfire and Forest Resilience Action Plan (Attachment 9). By reducing forest fuels, it would also reduce forest fires and thereby GHG emissions.

Construction Details

Construction is tentatively planned for 2024 and is estimated to take approximately 3-4 months. The access road on the west side of the parcel would be improved from State Highway 20 to a 5-acre area where the fencing and a biomass processing facility will be constructed (please see section 2.3.3 below for additional details). Some ground disturbance would be required for widening the driveway and leveling the ground to pour a pad for the 27,625-gallon NFPA 1142 rated water storage tank. Semi-trucks would deliver the steel building structure (membrane canopy structure with convex/cargo containers) as well as the large fire water storage tank and other equipment. Construction activities would require 3 to 4 local employees. Construction activities would adhere to all

requirements listed in the Lake County Municipal Code for air quality, noise, traffic and other local, State, and federal requirements.

Driveway Access & Improvements

The project development will include maintenance and improvement to the existing driveway that runs along the western edge of the parcel. This driveway has historically provided access for farming and equipment storage, and site maintenance. The driveway is lightly graveled, and an additional 200 cubic yards of gravel will be added to improve fire apparatus access to the facility as described earlier. A Knox Box (emergency key box) will be provided for rapid fire access at the gate. Fire apparatus turnaround will be provided. This will also provide a better gravel base for the vehicle access used during weekday operations. The existing encroachment from the parcel to State Highway 20 will be improved to conform to the requirements of Caltrans standard driveway exit from a 55-mph road. Line-of-sight requirements conform to the 605' minimum view in each direction for 55 mph traffic. Additional road base of 8 inches, with 2-1/2 inches of asphalt, will be added to create a more level ingress and egress for vehicle traffic along with widening to 30 feet and lengthening the driveway approach and apron area to 60 feet. The driveway will be paved from the existing edge of State Highway 20 to a new gate located at the 60' mark. Drainage and erosion control will be provided in areas of concern. The 14' wide driveway will be covered by filter fabric then 8" of rock (3/4"-1" Washed Rock) will be placed over that then a layer of TrueGrid Permeable Pavers with a layer of fill rock of 1.8" (5/8"-3/4" washed rock) (Attachment 4).

This driveway will conform to CalFire Article 2 Ingress and Egress §1273.01. Width. (c) Driveways (minimum 10'W), §1273.02. Road Surfaces (b) support at least 40,000 pounds and §1273.05. Turnarounds (d) Dead-end turnaround at terminus of 1,320'. The driveway area is 20,790 sf with a total of 514 cubic yards of base rock and 115 cubic yards of paver fill. A total of the TrueGrid with Washed rock Pavers helps prevent gravel road dust and stabilizes the road for fire/emergency vehicle access. This method of construction for the driveway will create a 40% void in space for water detention with a planned 55,000 square feet of pavers used will allow for 11,000 cubic feet of storm water detention capacity in the paver area. The pavers are made totally from post-consumer recycled plastic containers. Using gravel and pavers instead of concrete will save an estimated 163 tons of CO².

The one-acre fenced main processing area will be covered by filter fabric, 6" of washed base rock or 827 cubic yards and 276 cubic yards of fill rock. It is expected that rock will be delivered from State Hwy 179 via State Hwy 29 to State Hwy 20 for 15 total miles with dual trailers of 20 cubic yards per trip. 32 trips for the driveway and 55 trips for the fenced work area. Expected total rock delivery miles driven by truck is 2,610 miles. Pursuant to the Lake County Municipal Code Chapter 30, Article V, Section 30-17, subsection 17.4.19, routine maintenance of roads is an exempt activity, however, widening of the road is not. Although the amount of material that will be used for widening the driveway was not provided, the total material for the driveway (which includes the widening) and the fenced processing area is estimated to be 1,740 cubic yards.

Operations

As proposed, some of the project operations would include unloading biomass, sorting, trimming, crumbling, orbital shear, screening, biomass conversion processing to renewable fuel, and on-site bioenergy/biochar equipment. The site would provide its own power, utilizing the forest material to generate renewable energy as a microgrid. Microgrids are localized electric grids that can disconnect from the main grid to operate autonomously, even with the larger grid is down. It is planned that most of the material delivered to the site will be in the form of chipped wood, brush and branches that can be processed at the site. The providers of the forest wood will be required to supply the appropriate material with sizing and content.

Forest materials will be trucked to the site from contractors completing forest fuel reduction and powerline hazardous wood removal around the County and surrounding forest land. Forest materials are pre-processed into large wood chips offsite, mostly at the Donahoo facility at 8605 Bottle Rock Road, Kelseyville CA 95451, 21.2 miles away. The Donahoo site presently chips 300,000 tons, a year, of forest fuel mitigation and trucks approximately 100 miles away now. It is anticipated that between 2 and up to 5 trucks during the weekday will deliver forest materials of approximately 15,000 to 50,000 - tons per year. Utilizing the materials locally will save an estimated 158 miles per truck load or approximately 91.7 kgs of CO² emissions per truck load (one metric ton per week). We also plan that 4 employee vehicles will be used weekdays. One ADA conforming parking space will be provided. No bad odor will be generated from the process.

Once the forest material is onsite, the trucks or trailers will be unloaded by dumping or by tractor outside of the fenced area. The materials are then sorted and placed in appropriate areas and prepared for process. Tree branches and brush can be placed directly into the shredder that will cut material into chunks appropriate sizes for processing. If material is too wet to process, it will be sun-dried outside the fenced area and will be placed in rows no higher than 8 feet. Additional drying can be used during winter months with excess heat from the generating equipment. No combustion is used for direct drying of the material. Dried processed material will be placed within the fenced area for ready to trailer off or use at site. No materials that are not within the facility's ability to process will be approved for delivery.

Within the membrane canopy structure, the process system will consist of mechanical conveyors and systems to interconnect the biomass material as it moves through the process. The processing is to achieve a size for the biomass that will allow for the best results in turning woody material into renewable syngas to run in the power generator for producing onsite microgrid power. As part of the syngas process, wood biomass is dropped into an airlock chamber through a solid slide gate (Attachment 5). On the bottom of the chamber is another slide gate that is opened once the first chamber is full. The wood then enters into the electrically heated sealed and insulated chamber that is thermally heat with no air to release the gas embedded in the biomass. No combustion of the wood occurs, rather the biomass is thermally decomposed into combustible gases (called Synthetic Gas "Syngas") and residual carbon mass called biochar. The syngas is filtered and cooled to

make it ready for use in power generation and the biochar is then sent to a holding container. Attachment 7 provides specifications and other information on an Artis Biomass Gasifier Unit Syngas Generator. Photo 1 is an example of a Field-Testing Facility which is in Walnut Grove, California.

Biochar will leave the facility about once every two weeks in a covered truck trailer. The amount of biochar produced will be about 1-1.5 tons a day, 5 days a week. A 15-ton capacity trailer would be leaving every two to three weeks. The main customer would be the Donahoo located along Bottle Rock Rd., Kelseyville.

The steel building structure (membrane canopy structure) is designed in accordance with California Building Code Volume II Chapter 31 (Special Construction) Section 3102 in place for over 180 days for membrane canopy structures. Sections 3102.1, 3102.3, 3102.6, and 3102.6.1 apply. Occupancy Group (CBC Chapter 3) is U with construction type being IIB, single-story, building height under 55 feet (actual 26 feet) (CBC, Table 504.3), Building Area Limit of 8,500 sf (actual 2,400 sf (40'Wx60'L)) (CBC Table 503), and conforms to building area without sprinklers under 8,500 sf (CBC Table 506.2). Building Occupancy F-1 or F-2 for wood processing is for buildings over 2,500 sf in area and at 2,400 sf does not require fire protection sprinklers.

Photo 1: Artis Field Test Lab Site Picture (Walnut Grove, CA)



Source: Scotts Valley Energy Corporation, 2024.

Employment

Work would consist of arranging forest wood materials delivered into processing sections. Sun drying may occur on static forest materials during summer months, but wood biomass drying will occur when necessary, using waste heat from the power generation process. Moving materials and loading them into processing equipment will be accomplished with a front loader. Employees will work in and around the woodyard throughout the site. One of

the 5 acres is designated for material handling and processing, with most of the equipment located within this fenced restricted area. The employees also work in and around the process building when materials are in process.

The total onsite personnel, as proposed, would be between 3-5 employees. The weather will have an influence on the number of employees working at any one time. For example, in the winter if conditions dictate that forest material is not generated offsite and trucking of biomass to the site is limited then less employees would be needed. This would also be the case when fire conditions dictate that no activity can take place in the forest and, therefore, no material will be coming to the processing site. Shredding and crumbing operations would require 2 to 3 employees. Employees are always onsite during normal weekday business hours, engaged in the processing and moving of material, moving of equipment around the yard, loading and unloading of trucks/trailers, and performing repairs and maintenance. The forest material delivery contractor is responsible for delivering the correct specification of wood chips equal to or under 6" in size. A covered trash container is provided in areas where employees generate litter. Onsite litter is collected routinely and disposed of properly.

Water Usage

Estimated domestic water use is approximately 100 – 500 gallons a day and 100,000 gallons annually which would be applied to the material to control dust and maintain the appropriate moisture content and applied to areas to suppress fugitive dust emissions. Water is currently available at two existing wells, one near the entrance or the property and the other 300' south of the operations location, one of which will be refurbished.

A 27,625-gallon NFPA 1142 rated water storage tank will be placed near the entrance to fenced area for emergency water supply for fire suppression. No fire pump will be provided but a fire hydrant connection, acceptable to North Shore Fire District, will be supplied for connection to a pumper truck. A 2" water line and UG electrical line to power pump, approximately 300' long will be installed from an existing farm well that fills the water storage tank (Attachment 6). The well is located on the parcel to the south at APN: 004-013-15.

No septic system will be installed. Instead, an ADA-approved restroom facility will be used, and a servicing company will be hired to maintain the facility appropriately with cleaning and disposal at minimum of once a week. The project includes a 2,500-gallon onsite water storage tank used for dust control and domestic water when needed.

Hours of Operation

The facility would operate Monday through Friday, and close on all national holidays. Hours of operations will occur between 7:30 a.m. and 7:00 p.m., with the site not open to the public. No weekend processing will be allowed outside the hours permitted herein. Some of the power facilities will be running on already processed materials to keep water pump, security and lights operating keeping lights directed toward the ground to prevent

any significant nighttime light pollution. Remote monitoring and control will be used for operations and security.

Petroleum Based Products

Petroleum based products that will be located onsite from time-to-time, and proposed temporary storage at the facility, consist of the following:

- Diesel fuel (red diesel) to be stored and used only onsite in a tank/trap wagon (500-gallon UL142 double-walled fuel storage tank with 25gpm 120vac pump & meter fueling station) for off-road vehicles.
- Located in a designated locked Conex Metal Shipping Container with appropriate containment and ventilation, will house the following:
 - Hydraulic oil, new or used, for the equipment will be kept in 5-gallon bucket or less, prior to being transported to a certified recycling center waste oil container.
 - Engine oil, new or used, will be kept in 5-gallon buckets or less, prior to being transported to a certified recycling center waste oil container.
 - New engine oil is stored in a 5-gallon bucket which is used for the equipment and generator set when applicable (oil change). General cleaning liquids in containers under 1 gallon.

Noise

Sound levels have been estimated and fall under the county's acceptable levels for agriculture operations. The sound level of the power generation facility will be under the decibels A levels for non-business hours to the property line.

17. Surrounding Land Uses and Setting

Surrounding land uses includes row crops and agricultural buildings to the west, undeveloped land to the south, single-family home to the east, and State Highway 20 to the north. The parcel sizes in the surrounding area range in size from 9.9 acres to 74.8 acres. Public rights-of-way in the vicinity of the project site include State Highway 20, a Caltrans maintained roadway, on the north. Access to the subject property is limited to State Highway 20. The nearest residences are located approximately 1,000 feet to the east and additional properties over 850 feet to the north, with State Hwy 20 in between. The residences are located above any drainage planned for the site. The Lake County Municipal Code zoning designations for surrounding properties include:

- North: Beyond State Highway 20. APN 004-010-23, "RR" Rural Residential-"WW" Waterway.
- South: APN 004-013-18, "APZ" Agricultural Preserve Zone-"WW" Waterway-"FF" Floodway Fringe.
- West: APN 004-010-29, "A" Agriculture-"SC" Scenic Combining-"WW" Waterway-"FF" Floodway Fridge.
- East: APN 004-010-05, "A" Agriculture-"SC" Scenic Combining-"WW"

Waterway-“FF” Floodway Fridge.

18. Other public agencies whose approval is required (e.g., Permits, financing approval, or participation agreement).

The extent of this environmental review falls within the scope of the Lead Agency, the Lake County CDD, and its review for compliance with the Lake County General Plan, the **Upper Lake-Nice Area Plan** ~~Middletown Area Plan~~, the Lake County Zoning Ordinance, and the Lake County Municipal Code. Other organizations in the review process for permitting purposes, financial approval, or participation agreement can include but are not limited to:

- Lake County Air Quality Management District
- Lake County Community Development Department
 - Building and Safety Division
 - Planning Division
- Lake County Department of Environmental Health
- County of Lake Health Services
- Lake County Department of Public Works
- Lake County Sheriff Department
- Lake County Northshore Fire **Protection** District
- California Department of Transportation
- California Department of Fish & Wildlife
- Central Valley Regional Water Quality Control Board

19. Have California Native American tribes traditionally and culturally affiliated with the Project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

The County sent out an AB52 Tribal Consultation Notification to all Tribal Nations on September 27, 2023. ~~To date, no comments have been received.~~ **Staff received a request for consultation from the Habematolel Pomo of Upper Lake on May 8, 2024, and held the first tribal consultation meeting on May 16, 2024. Another meeting is scheduled for June 10, 2024.**

20. Initial Study Attachments

The following attachments are included at the end of this report and referenced throughout the report’s text:

Attachment 1: Mitigation Monitoring & Reporting Program (MMRP)

Attachment 2: Project Plans:

- Bioretention Rainwater Runoff Plan (CP-1.2)
- General Encroachment (GE-0.1)

- Architectural & Structural Drawing (AS-1.1)
- Architectural Equipment Drawing Interior Layout (AQ-5.1)
- Architectural Equipment Drawing Interior Layout (AQ-5.2)
- Architectural Equipment Drawing Interior Layout (AQ-5.3)
- Electrical Drawing Microgrid Schematic (E-1.6)
- Sound Level Analysis (X-0.6) and
- Earthquake Fault Zone Map (X-0.8)

Attachment 3: Biological Resource Assessment with Botanical Survey

Attachment 4: TrueGrid Pavers

Attachment 5: Artis 200 R2 Carbon Negative Fuel & Energy

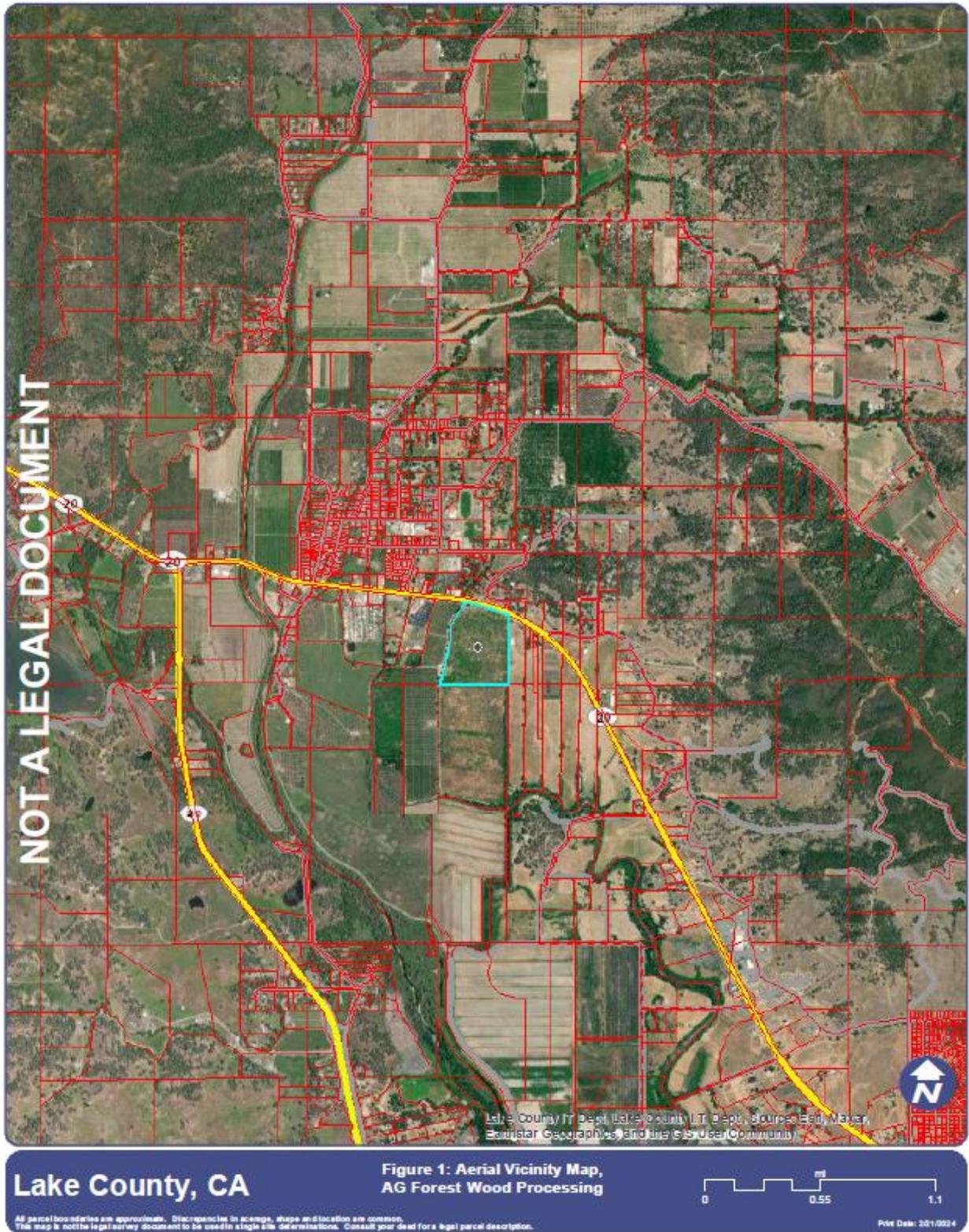
Attachment 6: Water Tank NFPA 22 Compliant and Typical Suction Nozzle with Anti-Vortex

Attachment 7: Generator Sets

Attachment 8: Land Evaluation & Site Assessment (LESA)

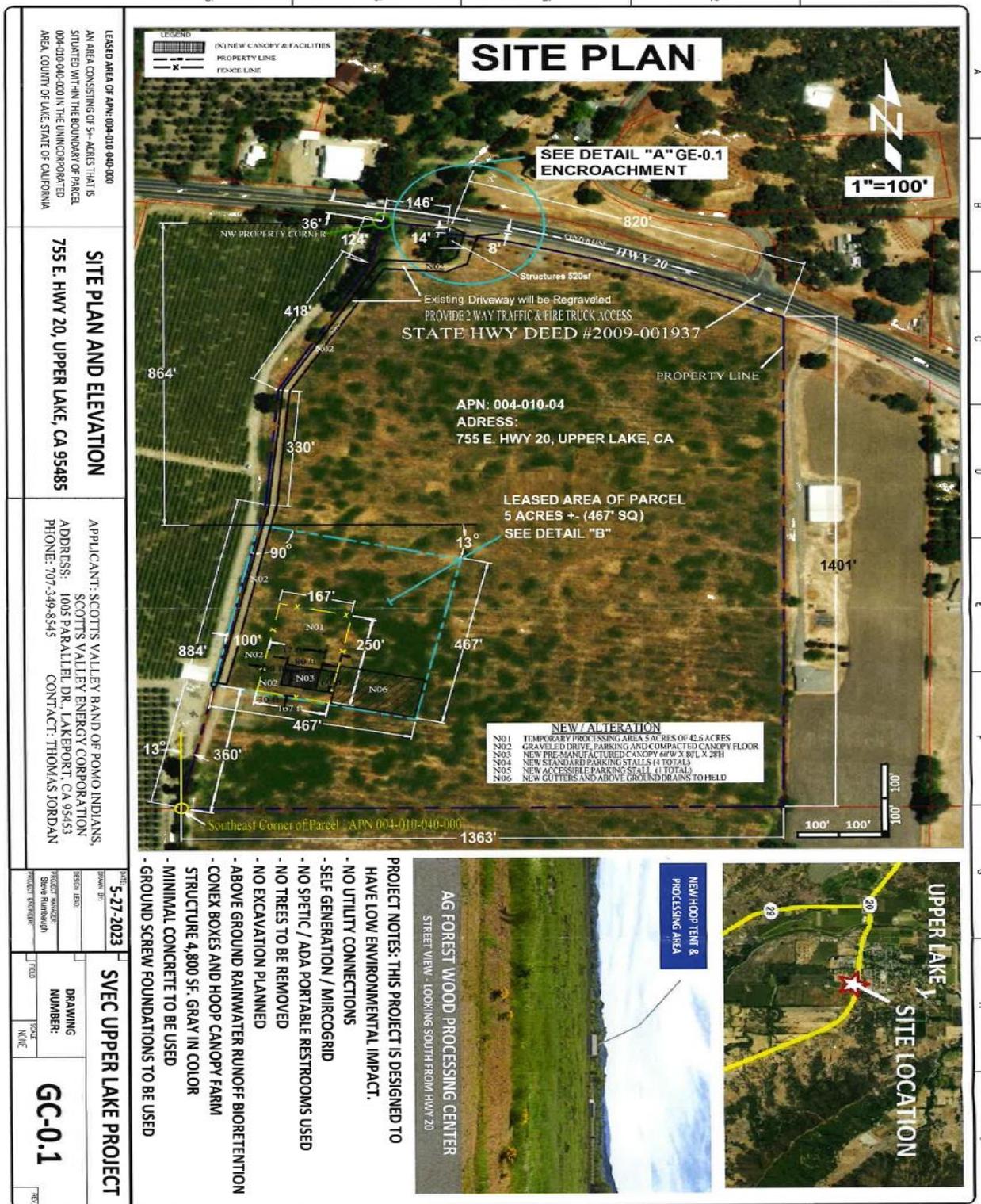
Attachment 9: Californias Wildfire and Forest Resilience Action Plan

Figure 1: Aerial Vicinity Map



Source: Community Development Department, 2023.

Figure 2: Site Map



Source: Scotts Valley Band of Pomo Indians, 2023.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving project aspects that have a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|---|---|--|
| <input checked="" type="checkbox"/> Aesthetics | <input type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Public Services |
| <input type="checkbox"/> Agriculture & Forestry Resources | <input checked="" type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Recreation |
| <input checked="" type="checkbox"/> Air Quality | <input checked="" type="checkbox"/> Hydrology / Water Quality | <input checked="" type="checkbox"/> Transportation |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Land Use / Planning | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Utilities / Service Systems |
| <input type="checkbox"/> Energy | <input type="checkbox"/> Noise | <input checked="" type="checkbox"/> Wildfire |
| <input checked="" type="checkbox"/> Geology / Soils | <input type="checkbox"/> Population / Housing | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Initial Study Prepared By: Laura Hall, Senior Planner

Signature: _____ Date: _____

Mireya G. Turner, Director
Lake County Community Development Department

EVALUATION OF ENVIRONMENTAL CHECKLIST

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
Once the lead agency has determined that a particular physical impact may occur, and then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 3) "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c) (3) (D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures, which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
 - a) The significance criteria or threshold, if any, used to evaluate each question; and
 - b) The mitigation measure identified, if any, to reduce the impact to less than significance.

| I. AESTHETICS | Potentially Significant Impact | Less Than Significant with Mitigation Measures | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| Except as provided in Public Resource Code Section 21099, would the project: | | | | |
| a) Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area would the project conflict with applicable zoning and other regulations governing scenic quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Discussion

a) Scenic areas are regulated in the Lake County Municipal Code Zoning Ordinance Article 34, "SC" Scenic Combining District. The site includes both pastoral features and convenient visual access from State Highway 20. These two characteristics must be considered when applying the "SC" district. According to Article 34, the minimum standard shall be the development standards of the base zoning district, or the performance standards set forth in this Article, whichever is more restrictive. Therefore, the project must meet the performance standards under Article 34, Section 21-34.10 (b) and (c) which requires consideration of the following: setbacks, yard areas, parking and loading, outdoor storage, operations, and landscaping to be part of the review. Although Article 34 states that uses except single-family residential structures shall be subject to development review as set forth in Article 56, pursuant to Article 56, Section 21-56, subsection 56.2 (d) "A development review permit is hereby waived whenever a design review permit is required by this Chapter".

Due to the size of the parcel and the 5-acre site being set back approximately 1,000 feet from State Highway 20, the project would meet the performance standards for lot dimensions and setbacks. The site plans include Architectural & Structural Drawing of the membrane structure that includes fabric and trim color options. A chain-link fence will be installed around the membrane structure and outdoor processing area. To meet the requirements of Section 21-34.10 (b) (v), the following mitigation measure shall be applied.

AES-1: Prior to construction activities, a landscaping plan shall be submitted to the Community Development Department that includes the appropriate visual screening using drought resistant or indigenous vegetation. Water conservation shall be applied with the use of drip irrigation.

In addition, according to the ~~Shoreline Communities Area Plan~~ **Upper Lake-Nice Area Plan** Section 3.40, subsection 3.4, ~~State Highway 20 has been identified as a potential scenic highway. However, existing, and commercial and residential development in the planning area may affect the ability of the highway to be considered for Scenic Highway status.~~ **scenic corridors include among other things 1) pastoral features such as farms, pastures, vineyards or orchards, 2) provide convenient visual access from a state highway, county roadway, bikeway or trail, and 3) allow features to remain in view of the traveling public for a reasonable length of time for lasting views or impressions. With AES-1 incorporated into the project, it would comply with Objective 3.5.2.a and Policy 3.5.2e.**

The project would meet Objectives ~~3.5.2 4.4 and 3.4.~~, Policies ~~3.5.2.e 4.4a through 3.4.4i and 3.4.5~~ with AES-1 applied.

Less Than Significant with Mitigation Measure AES-1

b) ~~According to As mentioned above, the~~ **Upper Lake-Nice Area Plan** ~~Shoreline Communities Area Plan Section 3.0, subsection 3.4~~ **Figure 5**, says that State Highway 20 has been identified as a potential **state scenic route** highway. However, although State Highway 20 is included on the State's List of Eligible and Officially Designated State Scenic Highways List, it is not on the Caltrans List of Officially Designated County Scenic Highways (California Department of Transportation, 2015).

Less Than Significant Impact

c) Proposed development would be located approximately 1,327 feet from State Highway 20. Below is the street view of the property with the red arrow showing the general location of the 5-acre site. Although the facility would be visible from State Highway 20, both pastoral features and convenient visual access would remain. Also, as discussed in criteria a) above the project will need to comply with Articles 34 and 56.

Less Than Significant Impact

Photo 2: Google Street View from State Highway 20 Looking South at Property



Source: Google, 2024.

d) No weekend processing will be allowed outside the hours permitted. Some of the power facilities will be running on already processed materials to keep water pump, security and lights operating keeping lights directed toward the ground to prevent any significant nighttime light pollution. Remote monitoring and control will be used for operations and security. Additionally, pursuant to the Lake County Municipal Code Chapter 5 Building Regulations, Article I, Section 5-4G 5. Light fixtures must direct light downward and not allow light to escape in an upward direction. The following mitigation shall be incorporated into the project.

AES-2 Outdoor lighting shall be restricted to the processing facility and shall be directed downward so as not to illuminate adjacent areas. All lighting being proposed shall conform with IDA Dark Sky approved fixtures.

Less Than Significant Impact with Mitigation Measure AES-2

| II. AGRICULTURE AND FORESTRY RESOURCES | Potentially Significant Impact | Less Than Significant with Mitigation Measures | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|--------------------------|
| Would the project: | | | | |
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

| | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | | | | |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion

a) The 42.6-acre project site is zoned APZ “Agricultural Preserve” by the County of Lake and five acres of the parcel is designated as “Prime Farmland” by the California Department of Conservation. Construction activities including improving the existing driveway and installing the membrane canopy structure and required infrastructure would result in temporary impacts to 5 acres of prime farmland. The estimated timeline to complete these activities is approximately 3-4 months. Operations would continue to have impacts on five acres of prime farmland. Although most of the development would not be permanently affixed to the land and could be returned to its natural state when the lease agreement ends (10 to 15 years). However, due to the prime-farm land designation, an analysis was conducted using the California Department of Conservation’s Land Evaluation and Site Assessment (LESA) Model to determine the potential significance of the project’s conversion of agricultural land.

The LESA Model is a point-based approach for rating the relative importance of agricultural land resources based upon specific measurable features such as soil resource quality, the project's size, water resource availability, surrounding agricultural lands, and surrounding protected resource lands (California Department of Conservation, 1997). A single LESA score is generated for a given project after all of the individual Land Evaluation (LE) and Site Assessment (SA) factors have been scored and weighted. The California LESA Model is weighted so that 50 percent of the total LESA score of a given project is derived from the LE factors, and 50 percent from the SA factors. Individual factor weights are listed in Attachment 8, with the sum of the factor weights required to equal 100 percent.

Attachment 8 includes the final LESA score for the proposed project. As shown, the project site has an LE sub score of 42.46 and an SA sub score of 18; therefore, the final LESA score for the proposed project is 60.46. Table 1 includes the scoring thresholds to determine the significance of a project. The final LESA score for the proposed project is 60 which is considered significant unless either LE or SA sub score is less than 20. Since the SA sub score is 18, the proposed project's impact on prime farmlands would be less than significant.

Table 1: Total LESA Score Scoring Decision

| | |
|------------------|---|
| 0 to 39 Points | Not Considered Significant |
| 40 to 59 Points | Considered Significant only if LE and SA sub scores are each greater than or equal to 20 points |
| 60 to 79 Points | Considered Significant unless either LE or SA sub score is less than 20 points |
| 80 to 100 Points | Considered Significant |

Source: California Department of Conservation, 1997.

Less Than Significant Impact

b) The Williamson Act (California Land Conservation Act of 1965) states that a board or council by resolution shall adopt rules governing the administration of agricultural preserves. The rules of each agricultural preserve specify the uses allowed. Generally, any commercial agricultural use will be permitted within any agricultural preserve. In addition, local governments may identify compatible uses permitted with a use permit (California Department of Conservation, 2023). Pursuant to the Lake County Municipal Code Zoning Ordinance Article 4 Agricultural Preserve Zone (APZ), Section 21-4, subsection 4.5 (e) uses in Article 27, Table B, are allowed and include power generation facilities with a major use permit. Pursuant Article 68, Section 21-68, subsection 68.4 (p)14. Power generation is defined as "Any electrical generating facility using thermal, wind, or water energy including but not limited to, biomass plants, wind farms, coal-fired plants, or thermal power plants".

The parcel is under Williamson Act contract and was historically utilized for vineyard operations. Currently, the land has been fallowed since 2018 following its sale. However,

the County automatically renews Williamson Act Contracts annually until cancelled. As discussed above, using the California LESA Model methodology, the project’s impact on prime farmland would be less than significant.

Less Than Significant Impact

c) Forest land as defined under Public Resource Code 12220(g) is land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

Timber land as defined under California Code, Public Resources Code Section 4526, means land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis.

Timberland production zone or “TPZ” as defined under California Code, Government Code Sections 51104(g) means an area which has been zoned pursuant to Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, as defined in subdivision (h).

Neither the project site nor surrounding lands meet these definitions.

No Impact

d) Please refer to criteria c) in this section.

No Impact

e) Five acres of a 42.6-acre parcel classified as prime farmland would be used for the biomass facility operation for approximately 15 years. However, according to the LESA Model, the project is not considered significant. Please refer to criteria a) in this section.

Less Than Significant Impact

| III. AIR QUALITY | Potentially Significant Impact | Less Than Significant with Mitigation Measures | Less Than Significant Impact | No Impact |
|-------------------------|--------------------------------|--|------------------------------|-----------|
| Would the project: | | | | |

| | | | | |
|--|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under and applicable federal or state ambient air quality standard? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Result in other emissions (such as those leading to odors or dust) adversely affecting a substantial number of people? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Discussion

a) The project site is located within the Lake County Air Basin, which is under the jurisdiction of the Lake County Air Quality Management District (LCAQMD). The LCAQMD applies air pollution regulations to all major stationary pollution sources and monitors air quality. Due to the Lake County Air Basin attainment status with both state and federal ambient air quality standards, the LCAQMD does not have an air quality plan.

Less Than Significant Impact

b) and c) Any project with daily emissions that would exceed thresholds of significance of these criteria pollutants should be considered as having an individually and cumulatively significant impact on both a direct and cumulative basis: CO, SO₂, NO_x, O₃, PM₁₀, PM_{2.5}, VOC, ROG, Pb. Because the Lake County Air Basin is in attainment with both State and federal ambient air quality standards, the LCAQMD is not required to adopt thresholds for air quality.

Short-term construction activities would include widening and improving the existing driveway, setting up the membrane canopy structure with convex/cargo containers, and pouring a pad for installation of the 27,625-gallon NFPA 1142 rated water storage tank. Semi-trucks would deliver these items to the project site. Construction activities would take approximately three months and would require up to five local employees. The following equipment is expected for construction of the project: gruber; gravel truck; compaction equipment; post hole digger; ground screw anchor machine and delivery trucks; water trucks; and water buffalo trailer. Forty (40) total truck trips are estimated for construction.

Long-term operations per the lease agreement with the County are anticipated to last from 10 to 15 years. Approximately two to five trucks per weekday would deliver forest

materials (approximately 15,000 to 50,000 tons per year) to the site from Kelseyville approximately 24.5 miles away, and biochar produced at the site would require 1-2 covered trucks leaving the site approximately every two weeks. There would be two to five full-time personnel working Monday through Friday, 12 hours a day. Stationary equipment would include two power generators (Attachment 7). The nearest offsite residences are located approximately 820 feet to the east and 1,055 feet to the north on State Highway 20. Additional residences are located north of State Highway 20 which includes the pre-school that would be considered a sensitive receptor.

The proposed project was routed to the Lake County Air Quality Management District (LCAQMD) for review and commenting. The following mitigation measures would reduce criteria air pollutants to less than significant.

AQ-1: Commercial burning shall not be allowed during construction or during the life of the project. All vegetative waste from land development must be disposed of by chipping or other appropriate methods.

AQ-2: Mobile diesel equipment used for construction and/or maintenance shall comply with State registration requirements. Portable and stationary diesel-powered equipment shall meet the requirements of the State Air Toxic Control Measures for Compression Ignition engines.

AQ-3: A complete list of all equipment which will be utilized at the site with the potential to emit air contaminants shall be submitted to the LCAQMD including, but not limited to: conveyors, chippers, grinders, generator, pumps, off-road equipment, etc. An Authority to Construct permit may be required for equipment with the potential for emissions to air. The pyrolysis facility will likely require a LCAQMD Authority to Construct permit. The applicant shall contact the LCAQMD as soon as possible to reduce the potential for delays in obtaining any necessary LCAQMD permits.

AQ-4: The applicant shall chip seal primary access roads and parking. Paving with asphaltic concrete is preferred. All areas subject to semi-truck or trailer traffic should require asphaltic concrete paving or equivalent to prevent fugitive dust generation. Gravel surfacing may be adequate for low use/overflow driveways and parking areas; however, gravel surfaces require more maintenance to achieve dust control, and permit conditions should require regular palliative treatment if gravel is utilized. White rock is not suitable for surfacing (and should be prohibited in the permit) because of its tendency to break down and create excessive dust. Adequate dust mitigation measures must be put in place such that a nuisance is not created.

AQ-5: Other methods to accomplish AQ-4 shall be allowed through approval from the Lake County Air Quality Management District. Proof of approval from the Lake County Air Quality Management District shall be submitted to the Lake County Community Development Department prior to any ground moving activities.

Less Than Significant with Mitigation Measure AQ-1 through AQ-5

d) The mitigation measures listed above (AQ-1 through AQ-5) would reduce both construction and operational odors and dust to a less than significant level.

Less Than Significant with Mitigation Measures

| IV. BIOLOGICAL RESOURCES | Potentially Significant Impact | Less Than Significant with Mitigation Measures | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|-------------------------------------|
| Would the project: | | | | |
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Have a substantial adverse effect on state or federally protected wetlands (including, not limited to, marsh, vernal pool, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Conflict with any local policies or ordinances protecting biological | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

| | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| resources, such as a tree preservation policy or ordinance? | | | | |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion

a) The Biological Resource Assessment (BRA) was completed for the proposed project on July 15, 2023, and updated on February 20, 2024, by ecological consultant Lawrence Ray (Attachment 3). The update included, but not limited to, providing clear information on waterways at or near the project site. In addition, the BRA was sent out with project details to the different agencies for comments through the County’s Request for Review process. The California Department of Fish and Wildlife noted plant and animal species that have been found within 5 miles of the project (according to the CNDDDB Database) and provided recommendations which will be discussed and implemented into the project.

According to the BRA, the following analyses and surveys for sensitive plants and wildlife potentially occurring in the vicinity included:

- Review of current California Natural Diversity Database (CNDDDB) mapping of known sensitive plant and wildlife populations within the region.
- An analysis of the suitability of the site for sensitive plants and wildlife using the California Native Plant Society On-line Inventory of Rare and Endangered Vascular Plants of California, and the California Department of Fish and Wildlife’s California Wildlife Habitat Relations System.
- A California Department of Fish and Wildlife protocol, floristic-level field survey of the plants occurring within the property.
- A delineation of waters of the U.S

Pre-Survey Research Results

CNPS On-Line Electronic Inventory Analysis: A California Native Plant Society (CNPS) analysis was conducted for all plants with federal and state regulatory status, and all non-status plants on the CNPS Lists 1B through 4. The query included all plants within this area of the county occurring within the plant communities identified on the project site. The inventory lists species potentially occurring at the site; these are listed in Table 2 (12 total). These species were included in the list of potentially sensitive species specifically searched for during field surveys. It is important to note that this list includes species for which appropriate habitat is not present on the parcel. The CNPS database search does not allow fine tuning for specific soil types and many specific habitats.

Note: The CNPS list is used to broaden the list of sensitive species considered during the subsequent field surveys; however, it must be used with discretion because the database search does not allow fine-tuning for specific soil types or for many specific habitats required by sensitive plant taxa. Consequently, the CNPS list generated for a site may include several taxa for which the required habitat is not present.

California Natural Diversity Database: The California Natural Diversity Database (CNDDDB) and CDFW RareFind 5 data and maps for the Upper Lake 7½' and adjacent quadrangles were reviewed for this project. Table 3 presents a list of sensitive plant (15 total) and wildlife species (20 total) known to occur within this quadrangle. In addition to listing the species present within the quadrangle, the table provides a brief descriptor of the habitat requirements and blooming season, along with an assessment of whether the project area contains the necessary habitat requirements for each species. Appendix A at the end of this report lists the species within the nine quadrangles in the vicinity of this property.

California Department of Fish and Wildlife, California Wildlife Habitat Relationships System (CWHR), Version 9.0: The CNDDDB and RareFind 5 databases consist of maps and records of all known populations of sensitive plants and wildlife in California. This data is continually updated by the CDFW with new sensitive species population data. The CNPS database produces a list of sensitive plants potentially occurring at a site based on the various site characteristics listed above. While use of the CNPS inventory does not in itself eliminate the need for an in-season botanical survey, it can, when used in conjunction with other information, provide an exceptionally good indication of the suitability of a site as habitat for sensitive plant species. The CWHR database operates on the same basis as the CNPS inventory. Input includes geographic area, plant community (including development stage), soil structure, and distinctive features such as presence of water, snags, cover, and food (fruit, seeds, insects, etc.).

Wildlife Habitat Analysis Results: The California Wildlife Habitat Relationships analysis lists a number of native species with sensitive and non-sensitive status as potentially occurring on the site based on the geographic location and wildlife habitats present. This list is included as Appendix B.

Wildlife Assessment: Based on the pre-survey research conducted for this study, a total of 15 (please note this should be 16 but the BRA lists 15) sensitive wildlife species need to be accounted for within the project area. These consist of the species identified as present within and adjacent to the Lower Lake quadrangle by the CNDDDB and CWHR, Version 9.0. Accepted protocol requires that all CNDDDB species in the surrounding U.S.G.S. quadrangle be discussed even though suitable habitat may not occur on the site.

According to the pre-survey research, a total of 27 plant species are listed (Table 2 and 3) from the CNPS and CNDDDB searches. Based on the pre-survey research, a total of 15 (please note this should be 16 but the BRA lists 15) sensitive wildlife species need to be accounted for within the project area. These consist of the species identified as present

within and adjacent to the Lower Lake quadrangle by the CNDDDB and CWHR, Version 9.0. Accepted protocol requires that all CNDDDB species in the surrounding U.S.G.S. quadrangle be discussed even though suitable habitat may not occur on the site. The 16 sensitive wildlife species include:

- Western bumble bee (*Bombus occidentalis*);
- Obscure bumble bee (*Bombus oliginosus*);
- Red-bellied newt (*Taricha rivularis*);
- Foothill yellow-legged frog (*Rana boylei*);
- Western pond turtle (*Emys marmorata*);
- White-tailed kite (*Elanus leucurus*);
- Northern harrier (*Circus cyaneus hudsonius*);
- Osprey (*Pandion haliaetus*);
- Tricolored blackbird (*Agelaius tricolor*);
- Grasshopper sparrow (*Ammodramus savannarum*);
- Townsend's western big-eared bat (*Corynorhinus townsendii* ssp. *townsendii*);
- Pallid bat (*Antrozous pallidus*);
- Pacific fisher, West Coast DPS (*Martes pennanti*);
- American badger (*Taxidea taxus*);
- North American porcupine (*Erethizon dorsatum*); and
- Bald eagle (*Haliaeetus leucocephalus*).

Additionally, the presence of the woodland, grasslands, and marshes and wetlands adjacent to Clear Lake provide a wide variety of upland and wetland habitats used by many animal species. Small, medium, and large mammals with sensitive and non-sensitive status such as rodents, bats, rabbits, skunks, deer, as well as woodpeckers, wrens, warblers, red-tailed hawks, crows and ravens, owls and other passerines and raptors may inhabit or feed on this property.

Note: Even when lacking sensitive status, migratory passerines and birds of prey are protected under the Migratory Bird Treaty Act and California Fish and Game Code. Removal or trimming of trees has a potential to result in an incidental take of eggs, or nestlings if clearing of tree habitat occurs during the nesting season (February 1 through August 31).

Field Survey Results

Sensitive Plants: A total of 42 native and introduced plant taxa were identified within the survey areas during the in-season botanical survey. As used here, the term sensitive includes species having state or federal regulatory status, included on Lists 1B through 4 by the California Native Plant Society, or otherwise listed in the California Natural Diversity Database.

Sensitive Wildlife: A total of 15 sensitive wildlife species were assessed for potential occurrence at the site because of inclusion in the CNDDDB database for the quadrangle

and the CWHR database. Based on the habitat assessment, the following conclusions are made regarding species with sensitive regulatory status:

- Sensitive status species that have a potential to be present in their sensitive state:
 - Obscure bumble bee, Foothill yellow legged frog; Western pond turtle; White-tailed kite; Northern harrier; Tricolored blackbird; Grasshopper sparrow; Townsend's big-eared bat; Pallid bat; American badger; Pacific fisher; North American porcupine.

Possible Waters of the U.S.: A small riparian area is adjacent to this parcel as shown on Figure 2 of the BRA. It is of very low quality and does not exhibit all three criteria for designation as wetland.

Recommendations

Wildlife and Bird Species: The BRA concludes that sensitive status species that have a potential to be present on the project property. Raptors and passerines lacking sensitive regulatory status but otherwise protected under the Migratory Bird Treaty Act may also be present on the property in their sensitive status. None of the species were observed during the field surveys and habitat is marginal and/or limited on-site. However, the presence of the woodland, grasslands, and marshes and wetlands adjacent to Clear Lake provide a wide variety of upland and wetland habitats used by many animal species. Small, medium, and large mammals with sensitive and non-sensitive status such as rodents, bats, rabbits, skunks, deer, as well as woodpeckers, wrens, warblers, red-tailed hawks, crows and ravens, owls and other passerines and raptors may inhabit or feed on this property. Pre-construction surveys will be completed prior to vegetation removal or earthwork to address potential impacts to nesting birds and other sensitive animals with the potential to occur within or adjacent to the existing drainage ditch (see Mitigation Measures BIO-2 and BIO-3). Additionally, Mitigation Measure BIO-4 requires the proper use, storage and handling of hazardous materials (such as pesticides and petroleum products) during construction and operation of the project to ensure impacts to sensitive amphibian species and water resources are reduced to less than significant.

Plants. Habitat onsite generally consists of annual and ruderal grasses, as well as disturbed areas from fallow farming practices. Some Valley Oaks, Himalayan blackberry and Poison hemlock are present along the western boundary of the site near the drainage ditch that borders the site. Although the database queries noted 15 plant species with the potential to occur within the larger area, no plants with sensitive regulatory status were found on the property during the floristic-level botanical survey and the project conditions do not support the presence of the noted special status plants.

Wetlands and Riparian Habitat. A small riparian area is adjacent to this parcel as shown on Figure 2 of the BRA.. It is of very low quality and does not exhibit all three criteria for designation as wetland. A formal delineation of waters of the U.S. was not conducted due to the lack of water, hydric soil and wetlands plants not present on the parcel (Ray,

2023). However, the BRA was updated on February 20, 2024, to clearly identify streams and culverts on or near the property. According to the updated BRA:

A dashed "blue line" appears on the soils map (Figure 3; Soils Map) and Vegetation Map (Figure 4), entering at the north central boundary at Hwy 20, turning to the east and continuing south along the eastern portion of the parcel.

A careful investigation looking for the presence of this unnamed stream found no evidence of it. Further field investigations and discussions with neighboring landowners revealed the presence of a culvert and ditch conveying water to the drainage ditch previously mentioned to the west. The culvert is located at datum 122.90058/39.1622 and flows approximately 45 yards to the western ditch at datum 122.900111/39.16127. This ditch is not located on the parcel, but within the State Highway 20 Caltrans's right-of-way. No water crossings are located on the parcel.

Although there is no evidence of a blue line stream on the eastern portion of the parcel according to the BRA, historical aerial imagery appears to show a pattern of what may be runoff that occurs from the northwestern corner and then ends on the east side approximately 675 feet from the highway down the parcel line. However, this occurrence is over 800 feet northwest of the project site. In addition, BIO-1 below would reduce impacts to less than significant.

Due to the proximity to the project site to the drainage ditch on the west side of the property, the following mitigation measures will be incorporated into the project. In addition, the applicant will be required to submit grading and erosion control plans which include best management practices.

Lastly, the BRA recommends outdoor lighting, if used, should be restricted to the processing facility and should be directed downward so as not to illuminate adjacent areas. All lighting being proposed conforms with IDA Dark Sky approved fixtures that will reduce impacts. This recommendation has been implemented with AES-2 which will reduce any lighting impacts.

BIO-1: All work in or near waterways and wetlands shall incorporate extensive erosion control measures consistent with Lake County Grading Regulations in order to avoid erosion and the potential for transport of sediments to the existing drainage ditch. Coverage under the National Pollutant Discharge Elimination System (NPDES), General Permit for Storm Water Discharges associated with a Construction Activity (General Permit) and a Storm Water Pollution Prevention Plan (SWPPP) may be required.

BIO-2: Pre-construction surveys for the presence of Western pond turtle, Foothill yellow-legged frog and other sensitive animal species shall be completed by a qualified biologist prior to ground disturbing activities within 100 feet of the drainage ditch along the western boundary of the site. If sensitive species are found, all work shall halt and appropriate buffer zones and handling protocols shall be established by a qualified biologist, in accordance with CDFW and USFWS protocols.

BIO-3: If the project includes vegetation removal (including grasses) or earthwork of any kind during the bird nesting season (February 1 through August 31), a qualified biologist shall conduct a pre-construction nesting bird survey to identify the absence or presence of active (i.e. with eggs or young) nests. The survey area shall include the project site and a minimum 300-foot buffer around the project site. To minimize the chance of nests becoming established between the time the survey is conducted and when construction begins, the pre-construction survey shall be conducted no more than three (3) days before the start of vegetation removal and/or ground disturbing activities. If active nests are observed during the pre-construction survey, a species-appropriate no-disturbance buffer shall be established by a qualified biologist to protect the active nest.

BIO-4: State and Federal regulations on pesticide selection, use, storage and transportation shall be strictly followed. Pesticide use shall not occur during periods when winds may transport spray to adjacent areas.

Less than Significant with Mitigation Measures BIO-1 – BIO-4

b) and c) A small riparian area is adjacent to this parcel as shown on Figure 2 of the BRA... However, according to the BRA, is of very low quality and does not exhibit all three criteria for designation as wetland (1. the presence of water, 2. hydric soils, and 3. wetland plants). The proposed project would need to comply with Article 37 Section 21-37, subsection 37.3 (b)4, which will require a 20-foot setback from wetlands.

Less than Significant Impact

d) The proposed processing facility are comparatively small and unlikely to significantly impair wildlife movement through the corridor. A chain-link fence will be installed around the facility and processing area. As recommended by the BRA, BIO-5 would reduce impacts from installing fencing in other areas.

BIO 5: The use of deer fencing shall be restricted to the perimeters of the proposed facility. No deer fencing or other obstacles to wildlife passage shall be installed that will restrict wildlife movement.

Use of outdoor lighting has a potential to disrupt wildlife movement, much of which occurs at night. Proposed lighting will be limited to 1 acre in low quality habitat and conforms with Dark Sky Approved fixtures. Mitigation measure AES-2 would reduce impacts.

Less Than Significant with Mitigation Measure BIO-5

e) Tree removal is not proposed with this project.

No Impact

f) Lake County does not currently have a habitat conservation plan. The BRA prepared for this project provides mitigation measures to reduce impacts to sensitive species.

Less than Significant Impact

| V. CULTURAL RESOURCES | Potentially Significant Impact | Less Than Significant with Mitigation Measures | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| Would the project: | | | | |
| a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Cause a substantial adverse change in the significance of an archeological resource pursuant to §15064.5? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Discussion

a) Lake County sent out a Request for Review to the Northwest Information Center at the Sonoma State University on September 27, 2023. A response was received on December 21, 2023, with the California Historical Resources Information System (CHRIS) results. In addition, a Cultural Resource Evaluation was completed by John W. Parker on July 19, 2023, for the proposed project. An evaluation was completed that included a review of background records and a field inspection of ~7 acres, including the project area and proposed access road alignment. The purpose of the investigation was to locate, describe, and evaluate any archaeological or historical resources that may be present within the project area. In addition, the author was to assess the impact that might occur as a result of ground disturbance activities associated with project development.

The background research indicated that most of the area had not been inspected for cultural resources in the past. However, a Caltrans Highway improvement project did inspect the northern-most portion of the road access alignment. This inspection relocated one site. During the field inspection, the small farm house adjacent to State Highway 20 was evaluated and found not to meet the criteria necessary to be considered a “significant” historic resource. No historic or prehistoric cultural materials were discovered during the field survey (Parker, 2023).

Less than Significant Impact

b) Some ground moving activities would occur during widening of the driveway, and vegetation clearance will be needed for developing the site.

The field inspection involved a complete reconnaissance of the proposed project area. This work was done by walking transects across the project area spaced every 5 to 10 meters. The ground was examined for historic and prehistoric cultural materials and features. Dense vegetation hampered the inspection of the mineral soil over much of the project area and it is likely that isolated artifacts would have been missed. However, enough ground surface was visible to make sure any significant historic or prehistoric features or sites would have been recorded. Because the field survey could not rule out finding isolated artifacts, the following mitigation measures shall be applied.

The Cultural Resource Evaluation recommends that in the unlikely event that buried cultural sites or features are encountered during the ground disturbance process, it is recommended that work in the immediate vicinity of the find be suspended, and a Registered Professional Archaeologist called in to evaluate the find as required by CEQA with California Resource Code Section 21083.2 referenced (Parker, 2023). This recommendation is further defined to cover training for workers and to provide specific steps should any archaeological, paleontological, or cultural materials be discovered during site development.

CUL-1: All workers shall be trained in recognizing potentially significant archaeological, paleontological, or cultural materials that may be discovered during ground disturbance. Prior to ground disturbing activities, the Permittee shall submit a Cultural Resources Plan, identifying methods of sensitivity training for site workers, procedures in the event of an accidental discovery, and documentation and reporting procedures. Prior to ground disturbing activities, the Permittee shall submit verification that all site workers have reviewed the Cultural Resources Plan and received sensitivity training.

CUL-2: Should any archaeological, paleontological, or cultural materials be discovered during site development, all activity shall be halted within 100 feet of the find(s). A professional archaeologist certified by the Registry of Professional Archeologists (RPA) shall be notified and shall evaluate the find(s) and recommend mitigation procedures, if necessary. The findings and mitigation measures shall be reviewed and approved by the Lake County Community Development Director prior to commencing work.

Less Than Significant with Mitigation Measures CUL-1 and CUL-2

c) The Project site does not contain a cemetery and no known formal cemeteries are located within the immediate site vicinity. In the event that human remains are discovered on the project site, the project would be required to comply with the applicable provisions of Health and Safety Code §7050.5, Public Resources Code §5097 et. seq. and CEQA Guidelines §15064.5(e). California Health and Safety Code §7050.5 states that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin. Pursuant to California Public Resources Code §5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made by the coroner. This requirement will be incorporated into the project with CUL-3.

CUL-3: Should any human remains be encountered, the applicant shall halt all work within 100 feet, notify the Sheriff's Department, the culturally affiliated Tribe(s), and a qualified archaeologist for proper internment and Tribal rituals per Public Resources Code Section 5097.98 and Health and Safety Code 7050.5.

Less Than Significant with Mitigation Measure CUL-3

| VI. ENERGY | Potentially Significant Impact | Less Than Significant with Mitigation Measures | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|--------------------------|
| Would the project: | | | | |
| a) Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resource, during construction or operation? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion

a) The primary energy source required for the project would be petroleum during short-term construction and woody biomass and petroleum during long-term operations.

Construction activities are expected to last one season (3 to 4 months). A truck and trailer would be used to deliver construction equipment. The equipment would be staged onsite until construction activities are complete and then will be removed. Construction equipment would be used varying hours over 3 to 4 months. Workers would drive their vehicles to the site. All of these activities would result in the use of petroleum fuels. The project would be subject to all Lake County Air Quality Management District regulations as well as the California Air Resource Board's (CARB's) In-Use Off-Road Diesel Vehicle Regulation that applies to certain off-road diesel engines. Overall, while construction activities would consume petroleum-based fuels, consumption of such resources would be temporary and would cease upon the completion of construction. Further, the petroleum consumed related to construction would be typical of construction projects of similar types and sizes and would not necessitate new petroleum resources beyond what are typically consumed in California. Therefore, because petroleum use during project construction would be temporary and minimal and would not be wasteful or inefficient, impacts are determined to be less than significant.

During operations, forest materials will be trucked to the site from contractors completing forest fuel reduction and powerline hazardous wood removal around the County and surrounding forest land. Forest materials are pre-processed into large wood chips offsite,

mostly at the Donahoo facility– 8605 Bottle Rock Road, Kelseyville CA 95451, 21.2 miles away. The Donahoo facility site presently chips 300,000 tons, a year, of forest fuel and currently trucks approximately 100 miles away. It is anticipated that between 2 to 5 trucks during the weekday will deliver forest materials of approximately 15,000 to 50,000 - tons per year to the project site. Utilizing the materials locally will save an estimated 158 miles per truck load. Therefore, the project would result in a net benefit due to reducing truck miles at the Donahoo site.

Operations would also include the use of red diesel fuel for off road vehicles. This would mainly consist of the front loader used to move the forest products. In addition, employees would drive their vehicles to the site daily during the week. These uses, and these discussed above, would likely be offset however by the renewable energy in the form of biomass which will power the entire site.

Less than Significant Impact

b) Many regulations have been passed in the State to address climate change including Assembly Bill 32 (Nunez, 2006) and Senate Bill 32 (Pavley, 2016). Renewable Energy regulation including Senate Bill 350 (de Leon, 2015) established clean energy, clean air, and GHG reduction goals, including reducing GHG to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050. The California Energy Commission is working with other state agencies to implement the bill. Senate Bill 350 increases California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030. This objective will increase the use of Renewables Portfolio Standard (RPS) eligible resources, including solar, wind, biomass, geothermal and others (California Energy Commission, 2024). Because this is a biomass project that would produce renewable energy, it is in agreement with the State’s plan for addressing climate change.

Less than Significant Impact

| VII. GEOLOGY AND SOILS | Potentially Significant Impact | Less Than Significant With Mitigation Measures | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| Would the project: | | | | |
| a) Directly or indirectly cause potentially substantial adverse effects, including the risk of loss, injury, or death involving: <ul style="list-style-type: none"> i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

| | | | | |
|---|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| <p>area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special. Publication 42.</p> <p>ii) Strong seismic ground shaking?</p> <p>iii) Seismic-related ground failure, including liquefaction?</p> <p>iv) Landslides?</p> | | | | |
| b) Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Discussion

Earthquake

(a) (i) According to the United States Geological Survey, the Clover Valley fault zone runs through the project site. This fault is classified as Undifferentiated Quaternary (< 1.6 million years), well constrained location. A Quaternary fault is one that has been recognized at the surface and that has moved in the past 1,600,000 years (1.6 million years). That places movement within the Quaternary Period, which covers the last 2.6 million years. **Figure 3 shows the Quaternary Fault that runs through the project site (the reader can zoom in to Figure 3 for a clearer view, or go to the United States Geological Survey's U.S. Quaternary Faults interactive map database and enter the project site's physical address (listed on page 1 of this IS/MND).**

The California Codes Public Resources Code Section 2621-2630, Alquist-Priolo Earthquake Zoning Act, provides policies and criteria to assist cities, counties, and state agencies in the exercise of their responsibility to prohibit the location of developments and structures for human occupancy across the trace of active faults. According to California Code of Regulations Title 14, Section 3601:

An "active fault" is a fault that has had surface displacement within Holocene time (about the last 11,000 years), hence constituting a potential hazard to structures that might be located across it.

Since the Clover Valley Fault is Quaternary fault, it does not meet the definition of an active fault under the Alquist-Priolo Earthquake Zoning Act.

Less than Significant Impact

(ii) Seismic Ground Shaking

Lake County contains numerous known inactive and some active faults. The closest active fault is the Bartlett Springs fault zone. This fault is classified as a Holocene fault displacement (during past 11,700 years) without historic record. Referring to the Earthquake Shaking Potential for California 2016 map, the project site is within the increasing intensity range of experiencing ground shaking during an earthquake (California Geological Survey, 2016).

The California Building Code (CBC) identifies seismic factors that must be considered in structural design. Specific minimum seismic safety and structural design requirements are set forth in Chapter 16 of the CBC. Chapter 18 of the CBC regulates the excavation of foundations and retaining walls, while Chapter 18A regulates construction on unstable soils, such as expansive soils and areas subject to liquefaction. Appendix J of the CBC regulates grading activities, including drainage and erosion control. The CBC also contains a provision that provides for a preliminary soil report or geotechnical report to be prepared to identify "...the presence of critically expansive soils or other soil problems which, if not corrected, would lead to structural defects" (CBC Chapter 18 Section 1803.1.1.1). Additionally, the state earthquake protection law (California Health and Safety Code Section 19100 et seq.) requires that structures be designed to resist stresses produced by lateral forces caused by wind and earthquakes.

Less than Significant Impact

(iii) Seismic-Related Ground Failure, including liquefaction

Liquefaction takes place when loosely packed, water-logged sediments at or near the ground surface lose their strength in response to strong ground shaking. Liquefaction occurring beneath buildings and other structures can cause major damage during earthquakes (United States Geological Survey, 2024). Liquefaction is most likely to occur

in wet, sandy, soils. Soils with large grains, such as sands, don't fit together very well and have large void spaces ("high porosity"). In wet regions of the world, this allows more water to infiltrate the soil (United States Geological Survey, 2024).

According to the digital Seismic Hazard Zone Map presents areas where liquefaction and landslides may occur during a strong earthquake. Three types of geological hazards, referred to as seismic hazard zones, may be featured on the map: 1) liquefaction, 2) earthquake-induced landslides, and 3) overlapping liquefaction and earthquake-induced landslides. In addition, a fourth feature may be included representing areas not evaluated for liquefaction or earthquake-induced landslides. Developers of properties falling within any of the three zones may be required to investigate the potential hazard and mitigate its threat during the local permitting process (California Department of Technology, 2020). According to the Seismic Hazard Zone Map, most liquefaction and landslides occurring during earthquakes are located in the Bay Area and southern California, not in Lake County.

Less than Significant Impact

(iv) Landslides

The project is flat and there are no surrounding mountains or hills in close proximity.

No Impact

b) According to the Soil Survey of Lake County, California, the following soil type Lupoyoma silt loam, protected (map unit 158²) includes very deep, moderately well drained soil is on flood plains. It formed in alluvium derived from mixed rock sources. Slope is 0 to 2 percent. Permeability of this Lupoyoma soil is moderately slow. Available water capacity is 8.5 to 11.0 inches. This soil covers most of the 5-acre site. Approximately 0.8% Cole Variant clay loam (map unit 124) covers the remainder of the area. This soil type includes very deep, moderately well drained soil is on flood plains. It formed in alluvium derived from mixed rock sources. Slope is 0 to 2 percent. Permeability of this Cole Variant soil is slow. Available water capacity is 8 to 10 inches (U.S. Department of Agriculture, Natural Resources Conservation Service, 1989).

According to Web Soil Survey, a wind erodibility group (WEG) consists of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. Lupoyoma silt loam, protected (map unit 158) has a rating of 5 while Cole Variant clay loam (map unit 124) has a rating of 6 (Natural Resources Conservation Service, 2024).

Construction would include some soil disturbance for widening the driveway and pouring a pad for the 27,625-gallon NFPA 1142 rated water storage tank. It is expected that a

² A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils.

grading permit would be required. Although a Construction General Permit would not be triggered, the applicant would still need to follow the Lake County Municipal Code Chapter 30, Article V, Section 30-18, subsection 18.3 c) requirement to submit an Erosion and Sediment Detention Plan, as well as all other requirements under Chapter 30 including, but not limited to, signing conditions of approval.

Less than Significant Impact

c) Please refer to criteria a) iii in this section.

Less than Significant with Mitigation Measure BIO-1

d) Lupoyoma silt loam, protected (map unit **symbol** 158) has a shrink swell that is moderate to low. This soil type consists of stratified very fine sand loam to silty clay loam and is well drained with no ponding. The shrink and swell potential for Cole variant clay loam (map unit **symbol** 124) is high (Natural Resources Conservation Service, 2024).

Pursuant to California Code Regulations Title 14, Section 3601 Definitions:

(e) A "structure for human occupancy" is any structure used or intended for supporting or sheltering any use or occupancy, which is expected to have a human occupancy rate of more than 2,000 person-hours per year.

According to the project description, the site will operate 12 hours a day, 5 days a week. With State and federal holidays: $12 \times 5 = 60$ hours $\times 52$ weeks = 3,120 – eleven federal holidays = 3,110 hours.

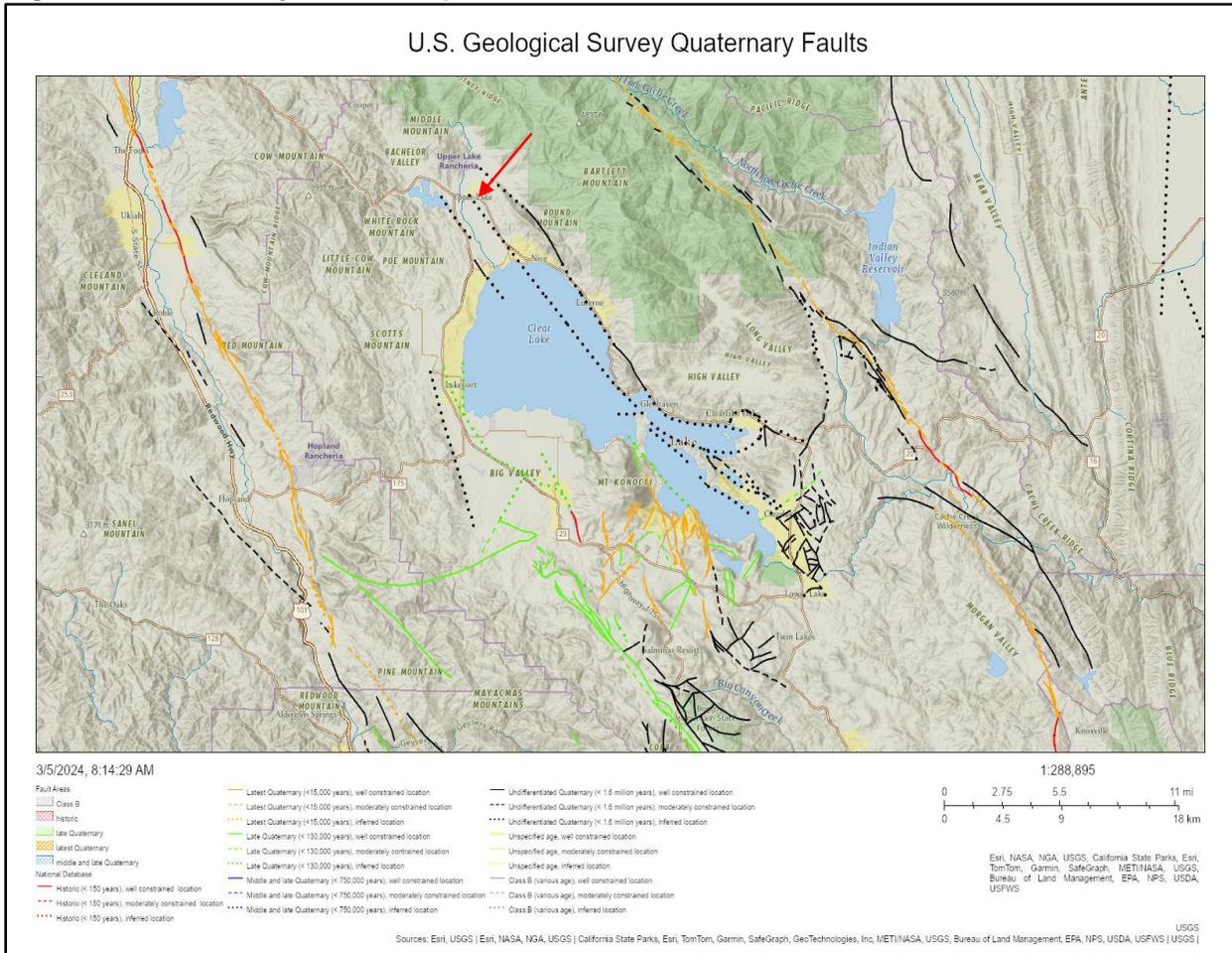
Although the project does not propose placing the member canopy structure in the area where Cole variant clay loam (map unit **symbol** 124) occurs, the following mitigation would reduce any potential design changes.

GEO 1: The proposed membrane canopy structure and any foundations shall be constructed on Lupoyoma silt loam, protected (map unit **symbol** 158) areas. Any development on the Cole variant clay loam (map unit **symbol** 124) areas would require a geotechnical report or approval from the Lake County Public Works Department prior to construction.

f) Please refer to Environment Factor 3.5 Cultural Resources section d).

Less Than Significant Impact with Mitigation Measure GEO-1

Figure 3: Quaternary Faults Map



Source: California Department of Conservation, 2024.

| VIII. GREENHOUSE GAS EMISSIONS | Potentially Significant Impact | Less Than Significant with Mitigation Measures | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| Would the project: | | | | |
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion

a) The LCAQMD does not have thresholds for greenhouse gas emissions so recommends using the BAAQMD's thresholds. On April 20, 2022, the Air District Board of Directors adopted CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans. Pursuant to Chapter 3 Thresholds of Significance, Table 3-2, land use projects must include A or B. Because A. only applies to residential, office and retail projects, the threshold for B. would have to be implemented. According to B. Projects must be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b). This option requires that a public agency creates a plan for the reduction of greenhouse gas emissions. Currently, the Lake County does not have a GHG emissions reduction plan.

However, this project agrees with both the California's Wildfire and Forest Resilience Action Plan, January 2021, as well as with California's 2022 Scoping Plan for Achieving Carbon Neutrality. While the first Plan covers the importance of reducing forest fuels through woody biomass projects in order to reduce open burning which in turn reduces GHG emissions, the second Plan covers the importance of bioenergy to reduce GHG emissions.

In addition, forest wood biomass/ bioenergy projects are becoming more common in California. Tuloume, Placer, and Shasta are among a few Counties that have been permitted over the last decade. The Placer County Air Management District is among the few air districts that has extensive experience in permitting woody biomass projects. According to the Tuloume BioEnergy Inc. Greenhouse Gas Study:

Under a No Project alternative, the biomass collected for the proposed Project would otherwise be burned in piles at the forest collection sites. Based on a report released by the National Wildfire Coordinating Group (NWCG 2020), average pile burning generates 3,711 pounds of CO₂e per bone dry ton (NWCG 2020: Table 4.1.1, Peterson, pers. comm., 2021). Thus, the Project would avoid 67,832 MT CO₂e that would be emitted annually from pile burning.

Although the project would produce a small amount of GHG emissions, mostly due to hauling traffic, these impacts would be offsite by reducing open air burning in Lake County's forests and therefore would result in net positive benefits for the life of the project.

Less than Significant Impact

b) This project agrees with California's 2022 Scoping Plan for Achieving Carbon Neutrality.

Less than Significant Impact

| IX. HAZARDS AND HAZARDOUS MATERIALS | Potentially Significant Impact | Less Than Significant with Mitigation Measures | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|-------------------------------------|
| Would the project: | | | | |
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Discussion:

a) and b) Construction activities would involve the use of hazardous materials such as fuels, lubricants, and solvents typically associated with construction equipment and vehicles. These materials are commonly used during construction and are not acutely hazardous. The federal Occupational Safety and Health Administration (OSHA) is the agency responsible for assuring worker safety in the handling and use of chemicals identified in the Occupational Safety and Health Act of 1970 (Public Law 91-596, 9 USC 651 et seq.). The OSHA has adopted numerous regulations pertaining to worker safety, contained in CFR Title 29. These regulations set standards for safe workplaces and work practices, including standards relating to the handling of hazardous materials and those required for construction activities such as excavation and trenching. Any materials used during construction activities would be handled in accordance with applicable laws, regulations, and protocols related to protect worker, user, and public safety.

Project operations would include use of diesel fuel (red diesel) to be stored and used only onsite in a tank/trap wagon (500-gallon UL142 double-walled fuel storage tank with 25gpm 120vac pump & meter fueling station) for off-road vehicles. Also, located in a designated locked Conex Metal Shipping Container with appropriate containment and ventilation, will house the following:

- o Hydraulic oil, new or used, for the equipment will be kept in 5-gallon bucket or less, prior to being transported to a certified recycling center waste oil container.
- o Engine oil, new or used, will be kept in 5-gallon buckets or less, prior to being transported to a certified recycling center waste oil container.
- o New engine oil is stored in a 5-gallon bucket which is used for the equipment and generator set when applicable (oil change). General cleaning liquids in containers under 1 gallon.

Lake County has an Emergency Operations Plan that was completed in July 2020. Businesses that handle hazardous materials in Lake County are required to file a Hazardous Materials Business Plan as well as a Risk Management Plan with Certified Unified Program Agencies. The California Health & Safety Code (Division 20, Chapter 6.95) defines a hazardous material as "any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and the environment if released into the workplace or the environment." Common hazardous materials include new and used oil, gasoline, diesel fuel, propane, antifreeze, solvents, etc. The Environmental Health Division of the Lake County Department of Health Services is the CUPA for all of Lake County (County of Lake, 2020). Therefore, the project was routed to the agency for comments and the following mitigation measures will be required.

HAZ-1: There are no permits for the referenced water well and septic system on this property. Notation of their existence was noted on material previously submitted in 2010, but the locations have not been validated. Prior to construction, the applicant shall schedule a field clearance inspection. In addition, It is noted in the submitted material that

the onsite well will be “refurbished”. A well repair/alteration permit may be required for this process. Prior to construction, the applicant shall contact the appropriate department to determine if a permit is required.

HAZ-2: All wells shall be located and with an adequate horizontal distance from potential sources of contamination and pollution. The storage of hazardous materials shall be located a safe distance from any water well to prevent contamination. The site shall be designed to prevent runoff of hazardous materials into the nearby creek and drainage paths.

HAZ-3: If the applicant stores hazardous materials equal to or greater than 55 gallons of a liquid, 500 pounds of a solid or 200 cubic feet of compressed gas, the applicant will be required to submit a Hazardous Materials Inventory Disclosure Statement/ Plan to the Environmental Health Division via the California Electronic Reporting System (CERS) and it shall be renewed and updated annually or if quantities increase. Note that additional California Unified Program Agency (CUPA) requirements may apply depending on the amounts of hazardous materials stored onsite. This requirement shall be completed prior to construction of the project.

Less Than Significant with Mitigation Measures HAZ-1- HAZ-3

c) The Early Childhood Development Center is located at 650 E. Highway 20. From the project parcels nearest boundary line to the pre-school it is 825 feet, and from the edge of the proposed facility to the pre-school is approximately 1,177 feet. Up to 5 haul trucks would be delivering processed wood to the site per day. Due to the proposed facility’s proximity to the pre-school, the project is not anticipated to emit hazardous emissions that would substantially impact the pre-school. However, this project was routed to the LCAQMD and to the Lake County Health Services for comments; noted requirements from these agencies have been incorporated as Mitigation Measures HAZ-4 and AQ-1-AQ-6. In addition, the trucks leaving the site to deliver biochar would be covered.

Less Than Significant with Mitigation Measures HAZ-4 and HAZ-4 and AQ-1-AQ-6

d) EnviroStor is the Department of Toxic Substances Control's data management system for tracking cleanup, permitting, enforcement and investigation efforts at hazardous waste facilities and sites with known contamination or sites where there may be reasons to investigate further. A search of the of EnviroStor came back as negative for hazardous waste sites within 1,000 feet of the project site (Department of Toxic Substances Control, 2024).

No Impact

e) Lampson Field is a general aviation airport and the sole public use facility in Lake County. The Public Works Department oversees the operation, maintenance, and improvements to the Airport (Lake County, 2024). Lampson Field is located at 600 Sky

Park Dr, Lakeport, CA 95453 which is over 14.5 miles from the project site. The project is not within the Lampson Field Master Plan (Hodges & Shutt, 1993).

No Impact

f) The project site would be accessed from State Highway 20 by up to 5 trucks per weekday. If an ambulance, fire truck, or the California Highway Patrol are on an emergency call and need to get by, there are areas before and at the project site where the trucks could pull over and let emergency responders go by. It is illegal in California not to yield the right of way to an emergency vehicle approaching with its lights and sirens on based on California Vehicle Code Section 21806.

Less than Significant Impact

g) Several meetings occurred with the Northshore Fire Protection District and the Lake County Building Department regarding driveway access, site operations, and water availability for firefighting. As a result of these meetings, the membrane canopy structure was reduced in size to prevent the requirement to install sprinklers which may have prevented the project from moving forward due to cost. The applicant would need to comply with all California Fire Code requirements which include but are not limited to those discussed below.

The existing driveway will be cleared and then covered with a base filter fabric, road base material, plastic heavy load grid paver system with a topping of clean crushed rock that incorporates into the paver system for compaction. This surface can retain water from running off and can carry heavy loads of 100 psi or 40,000 pounds. This driveway will conform to CalFire Article 2 Ingress and Egress §1273.01. Width. (c) Driveways (minimum 10'W), §1273.02. Road Surfaces (b) support at least 40,000 pounds and §1273.05. Turnarounds (d) Dead-end turnaround at terminus of 1,320'. The driveway area is 20,790 sf with a total of 514 cubic yards of base rock and 115 cubic yards of paver fill. Fire apparatus turnaround will be provided. A Knox Box (emergency key box) will be provided for rapid fire access at the gate.

As a result of meeting with the Northshore Fire District, a 27,625-gallon NFPA 1142 rated water storage tank will be placed near the entrance to fenced area for emergency water supply for fire suppression. No fire pump will be provided but a fire hydrant connection, acceptable to North Shore Fire District, will be supplied for connection to a pumper truck. A 2" water line and UG electrical line to power pump, approximately 300' long will be installed from an existing farm well that fills the water storage tank. The well is located on the parcel to the south APN: 004-013-15. This requirement will be added as mitigation.

As proposed, when material is too wet to process, it will be sun-dried outside the fenced area and will be placed in rows no higher than 8 feet. Additional drying can be used during winter months with excess heat from the generating equipment. No combustion is used for direct drying of the material. Dried processed material will be placed within the fenced area for ready to trailer off or use at site. Sun drying may occur on static forest materials

during summer months, but wood biomass drying will occur when necessary, using waste heat from the power generation process. ~~Although the p~~ Piles would be monitored through a computerized system for heat, ~~and HAZ-4 would require installation of a 27,625-gallon NFPA 1142 rated water storage tank for fire suppression which would reduce impacts to less than significant.~~ ~~the Northshore Fire Protection District was concerned that the materials might become combustible. Because combustible materials may take hours to extinguish, and other emergencies in the service area may need attention, a condition of project approval will state that:~~

~~After four hours of suppression efforts by the Fire Entities, the property owner shall take over continued extinguishment efforts with heavy equipment and water tenders at their expense.
If the emergency becomes re-established or of concern the property owner should call 911 for Fire response to mitigate the emergency.~~

HAZ-4: A 27,625-gallon NFPA 1142 rated water storage tank shall be placed near the entrance to fenced area for emergency water supply for fire suppression. No fire pump will be provided but a fire hydrant connection, acceptable to North Shore Fire District, shall be supplied for connection to a pumper truck. A 2” water line and UG electrical line to power pump, approximately 300’ long shall be installed from an existing farm well that fills the water storage tank.

Less Than Significant with Mitigation Measure HAZ-4

| X. HYDROLOGY AND WATER QUALITY | Potentially Significant Impact | Less Than Significant with Mitigation Measures | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|--------------------------|
| Would the project: | | | | |
| a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

| | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| i) Result in substantial erosion or siltation on-site or off-site; ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or iv) Impede or redirect flood flows? | | | | |
| d) In any flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion

a) and c) According to the Biological Resource Assessment with Botanical Survey completed on July 15, 2023, and updated on February 20, 2024:

A dashed "blueline" appears on the soils map (Figure 3; Soils Map) and Vegetation Map (Figure 4), entering at the north central boundary at Hwy 20, turning to the east and continuing south along the eastern portion of the parcel. A careful investigation looking for the presence of this unnamed stream found no evidence of it. Further field investigations and discussions with neighboring landowners revealed the presence of a culvert and ditch conveying water to the drainage ditch previously mentioned to the west. The culvert is located at datum 122.90058/39.1622 and flows approximately 45 yards to the western ditch at datum 122.900111/39.16127. This ditch is illustrated on Figure 4 as a yellow line and is not located on the parcel, but within the Hwy 20 Caltrans State Hwy Right of Way. No water crossings are located on this parcel.

Rainwater runoff from the 2,400 sq. ft. membrane canopy structure with 1,600 sq. ft. conex/cargo containers will go through a gutter system with downspout and would be routed to a dry detention basin area with 4% slope away from the processing area. The perforated advanced drainage system would include 140 ft. of 4" above ground piping, with 6" gravel placed over the perforated pipe system. Additional erosion control utilizing

wattles, gravel, logs, and a bioretention area. Biological filtration will be used in areas that need protecting and will utilize rice husks and straw when needed. A Bioretention Rainwater Runoff Plan (CP-1.2) is included in Attachment 2.

Earthmoving activities will include grading the existing driveway among other things (processing area and water tank). The project design will include covering the driveway with a base filter fabric, road base material, plastic heavy load grid paver system with a topping of clean crushed rock that incorporates into the paver system for compaction. This surface can retain water from running off. Also, as required under the Lake County Municipal Code Chapter 30, an Erosion and Sediment Control will need to be submitted with the grading plans. With incorporation of BIO-1, impacts related to erosion would be reduced to less than significant.

No septic system will be installed. Instead, an ADA-approved restroom facility will be used, and a servicing company will be hired to maintain the facility appropriately with cleaning and disposal at minimum of once a week. The project includes a 2,500-gallon onsite water storage tank used for dust control and domestic water when needed.

Both the project design and regulatory requirements would result in reducing impacts to surface and groundwater quality.

Less Than Significant with Mitigation Measure BIO-1

b) An estimated 100,000 gallons of water would be used annually for domestic uses and applied to control dust and to maintain the appropriate moisture content. Water is currently available at two existing wells, one near the entrance of the property and the other 300' south of the operations location, one of which will be refurbished. A 2,500-gallon water storage tank would be used for domestic purposes, and a 27,625-gallon NFPA 1142 rated water storage tank will be placed near the entrance to fenced area for emergency water supply for fire suppression. Mitigation measures for the wells and tank are implemental with HAZ-1 and HAZ-4.

Less Than Significant with Mitigation Measures HAZ-1 and HAZ-4

Groundwater in California is regulated under the Sustainable Groundwater Management Act of 2014 which requires local agencies to form groundwater sustainability agencies (GSAs) for the high and medium priority basins, and to develop groundwater management plans. The project site is within the Upper Lake Valley Basin which has not been classified as a high or medium priority basin. In addition, according to the Clear Lake Source Water Assessment and Watershed Sanitary Survey (August 2023), the Upper Lake Valley Groundwater Basin remains fully charged (California Rural Water Association, 2023).

Finally, the proposed project would use substantially less water than the previous land use which included vineyards.

Less than Significant Impact

d) The southern portion of the 5-acre site is within the 0.2 Percent Annual Chance Flood Hazard. However, the facility structure would be constructed in the X zone which is classified as Areas determined to be outside the 0.2% annual chance floodplain. In addition, the project will be required to adhere to the Lake County Building Code.

Less than Significant Impact

e) Although there is currently no water management plan, the Lake County Water Resources Department oversees programs for the water quality of Clear Lake. The Clear Lake Ambient Monitoring Program (CLAMP) collects monthly physical, chemical, and biological water quality data from the three arms of Clear Lake monthly. The CLAMP data is available on the California Environmental Data Exchange (CEDEN). Currently, the CEDEN is working with the San Francisco Estuary Institute on the Development of Lake County Water Quality Data Exchange Program (Phase 1) which will include factsheets and a data management plan. As part of the CDD’s processing of projects, a request for comments was routed to the Lake County Water Resources Department and as of April 7, 2024 no comments were received.

The project is designed to prevent runoff as discussed in Section a) above.

Less than Significant Impact

| XI. LAND USE PLANNING | Potentially Significant Impact | Less Than Significant with Mitigation Measures | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| Would the project: | | | | |
| a) Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion

a) Land uses that might result in dividing a community would include, but are not limited to development of the following uses: bridges, highways, railways, levees, tree groves, fences, etc. The property is currently not developed with structures. The development would be set back over 1,000 feet from State Highway 20. There would be some fencing around a portion of the site, but it would not interview with neighboring properties movements.

Less than Significant Impact

b) The proposed project is consistent with the Lake County General Plan. The general plan land use designation on this site is Agriculture A and Resource Conservation RC. According to the County of Lake General Plan (2008), Chapter 3, for Agriculture A “One purpose of this land use category is to protect the County's valuable agricultural resources and to prevent development that would preclude its future use in agriculture”, Because the propose project would only include 5 acres of the 42.6-acre site, much of the land would remain fallow. The LESA completed for the project resulted in a Less Than Significant Impact. In addition, the life of this project is tentatively planned for 10 to 15 years. The purpose of the Resource Conservation RC is to assure the maintenance or sustained generation of natural resources within the County. The highest priority for these lands is to provide for the management of the County’s natural infrastructure. A small riparian area is adjacent to this parcel as shown on Figure 2 of the BRA. It is of very low quality and does not exhibit all three criteria for designation as wetland. Mitigation has been applied to reduce impacts to this area.

According to the Lake County Municipal Code Zoning Ordinance, the project is zoned Agricultural Preserve Zone “APZ” - Scenic “SC” Combining- Waterway “WW”- Floodway Fringe “FF”:. Pursuant to Article 4, Section 21-4, subsection 4.5 (e) Those uses permitted in the “APZ” district with a major use permit in Table B, Article 27. According to Article 27, Section 27.11 Table B (x) power generation facilities are allowed in the APZ zoning district. Bioenergy would be produced for the woody biomass. The bioenergy would be used to power the facility and could be made available to downstream users. The project complies with other requirements with SC-WW-FF as discussed throughout this study.

Last, the project is in the ~~Upper Lake-Nice Area Plan~~ ~~Shoreline Communities Area Plan~~. The purpose of the ~~Upper Lake - Nice Area Plan~~ is to provide guidance regarding the long term (20 years) growth and development of the communities of Upper Lake and Nice as well the Blue Lakes and Lake Pillsbury areas and the surrounding rural areas. ~~Shoreline Communities Area Plan~~ is to provide guidance for the long-term growth and development of the ~~Shoreline Communities~~ area over the next twenty years. The project is in conformance with all applicable objectives and policies especially Objective 4.3.1 “To apply measures which protect life and property from fires and reduce the potential for wildland fires within the planning area”-Reduce the threat to life and property from structural and wildland fires”, and Policy 4.3.1be “Recommendations of the CDF, U.S. Forest Service and the local Fire Protection Districts shall be carefully considered and implemented where feasible and appropriate during evaluation of development proposals in the Upper Lake - Nice Planning Area Provide alternatives to controlled burns in high fire hazard areas”. The CDD had meetings with the Lake County Northshore Fire Protection District and the Lake County Fire Marshal as discussed in Section IX.

Less than Significant Impact

| XII. MINERAL RESOURCES | Potentially Significant Impact | Less Than Significant with Mitigation Measures | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-------------------------------------|
| Would the project: | | | | |
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a) and b) Mineral resources in Lake County mainly consist of aggregate minerals (Lake County Planning Department, Resource Management Division, 1992). The site does not include any known minerals and is not near a mining operation (California Department of Conservation, 2022). Other minerals exist in Lake County, but none are near the project site. Zoning of the site does not allow for mineral resource mining.

No Impact

| XIII. NOISE | Potentially Significant Impact | Less Than Significant with Mitigation Measures | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|-------------------------------------|
| Would the project: | | | | |
| a) Result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Result in the generation of excessive ground-borne vibration or ground-borne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

| | | | | |
|--|--|--|--|--|
| <p>a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?</p> | | | | |
|--|--|--|--|--|

Discussion

a) Some noise during construction will occur, however construction hours are limited to 7:00 a.m. to 6:00 p.m. Monday through Saturday, and construction would be considered temporary. Due to the temporary nature of construction, and the distance from adjacent uses, the likelihood of noise-related impacts is minimal and can be minimized through compliance with Lake County noise regulations, which are added standard conditions of approval for use permits. Operations would include noise from vehicle traffic, the facility, and other equipment used for maintaining the site. Because the wood would be processed at the Donahoo site before being delivered to the site, there would not be a lot of noise that is normally associated with woody forest biomass projects that also process the wood on the site. The project would need to comply with the following Lake County Municipal Code Zoning Article 41 which requires the following:

Table: Maximum on-hour equivalent sound pressure levels (A-Weighted-dBAS)

| Time of Day | Receiving Property Zoning District | | |
|--------------|------------------------------------|------------|------------|
| | Residential* | Commercial | Industrial |
| 7 am - 10 pm | 55 | 60 | 65 |
| 10 pm - 7 am | 45 | 55 | 60 |

*Note: The Residential category includes all agricultural and resource zoning districts.

Sound levels have been estimated and fall under the county's acceptable levels for agriculture operations. The sound level of the power generation facility will be under the decibels A levels for non-business hours to the property line.

Less than Significant Impact

b) Ground-borne vibration could be general from heavy equipment during construction. However, construction activities would be temporary, and operations at the site would not cause significant ground-borne vibration.

Less Than Significant Impact

c) See Section IX e). The project site is located 14.5 miles from the nearest airport. Therefore, the project would not expose people residing or working in the area to excessive noise levels from air travel.

No Impact

| XIV. POPULATION AND HOUSING | Potentially Significant Impact | Less Than Significant With Mitigation Measures | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|--------------------------|
| Would the project: | | | | |
| a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion

a) Typically, population growth is associated with projects that include substantial numbers of new housing units, increased roadway or utility capacity, or other facilities that draw populations of people to the area. The project does not propose such uses and all employees are anticipated to be from Upper Lake or nearby.

Less Than Significant Impact

b) Please refer to Section a) above.

Less Than Significant Impact

| XV. PUBLIC SERVICES | Potentially Significant Impact | Less Than Significant with Mitigation Measures | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|--------------------------|
| Would the project: | | | | |
| a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | | | |
|--|--|--|--|--|
| <p>impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:</p> <ol style="list-style-type: none"> 1) Fire Protection? 2) Police Protection? 3) Schools? 4) Parks? 5) Other Public Facilities? | | | | |
|--|--|--|--|--|

Discussion

a) The project could have some possible impacts on public services, primarily fire protection if a fire was to occur. Several meetings were held with the Northshore Fire Protection District and concerns about the outdoor drying of forest materials were voiced. The Fire District is located in **Upper Lake** Lucerne approximately 0.7 ~~8.6~~ miles from the project site. Mitigation measure HAZ-4 in Section IX has been incorporated into the project to reduce impacts related to hazards from wildfires. ~~In addition, a condition of approval will be added requiring the following:~~

~~After four hours of suppression efforts by the Fire Entities, the property owner shall take over continued extinguishment efforts with heavy equipment and water tenders at their expense. If the emergency becomes re-established or of concern the property owner should call 911 for Fire response to mitigate the emergency.~~

Police protection would be provided by the Lake County Sheriff's Office which has a office in Lucerne (approximately 8.6 miles) and one in Lakeport (approximately 10.4 miles).

Employees at the site would be local, so likely already use the nearby park and other facilities in Upper Lake.

Less Than Significant with Mitigation Measure HAZ-4

| XVI. RECREATION | Potentially Significant Impact | Less Than Significant with Mitigation Measures | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| Would the project: | | | | |
| a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

| | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion

a) Because the project does not propose components that would result in an increase in population, the project is not anticipated to result in the increase of local parks. The nearest park is Upper Lake Park, located approximately 1,018 feet from the entrance driveway to the 5-acre site. Employees who would be working at the project site would be locals who likely already use the park.

Less Than Significant Impact

b) The project does not include any recreational facilities and will not require the construction or expansion of existing recreational facilities.

Less Than Significant Impact

| XVII. TRANSPORTATION | Potentially Significant Impact | Less Than Significant with Mitigation Measures | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|--------------------------|
| Would the project: | | | | |
| a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Substantially increase hazards due to geometric design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion

a) Lake Transit has 10 routes serving Lake County with Route 1-North Shore Clearlake to Lakeport that serves Upper Lake. While Route-1 has a stop at Main Street in Upper

Lake, that site is approximately 0.8 miles from the project site (Lake Transit, 2023). A request for comments was routed to Lake Transit, and as of April 7, 2024 no comments were received.

According to the Final 2022 Lake County Regional Transportation Plan/Active Transportation Plan, there is a Class III Proposed Bikeways route south of the project site along Reclamation Road which continues across State Highway 20 along Upper Lake Lucerne Road. The route also goes along State Highway 20 near the project site, and occurs north of the project site along Bridge Arbor North and across State Highway 20 to Main Street in Upper Lake. The following mitigation measure shall be incorporated into the project.

TRN-1: Before the end of the driveway at State Highway 20, install signage cautioning truck drivers to watch for bicyclists.

Less Than Significant with Mitigation Measure TRN-1

b) Project operations would include trucks coming from the Donahoo site located at Bottle Rock Road, Kelseyville CA 95451, 21.2 miles away. Up to five trucks trips would occur per day. Once every two weeks, biochar will be transported in a covered truck trailer to the main customer located at 7130 Red Hills Road, Kelseyville. Lake County currently does not have thresholds for VMT. However, pursuant to the Technical Advisory on Evaluating Transportation Impact in CEQA, in the absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a Sustainable Communities Strategy or general plan, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than significant transportation impact.

Less Than Significant Impact

c) Would the Project substantially increase hazards due to geometric design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The project site is served by a private driveway which is accessed from State Highway 20. This project was routed to Public Works and Fire as well as to Caltrans. No adverse comments were received by either Public Works or Caltrans. The Northshore Fire District requested the interior driveway be improved to meet Public Resource Code 4290 and 4291 road standards for commercial uses.

Surrounding sites do include agricultural activities that utilize farm equipment. It is not uncommon to see farm equipment moving from one farm site to another and using public roads to do so. Due to the truck traffic coming in and out of the site, the following mitigation measure shall be incorporated into the project.

TRN-2: Before the end of the driveway at State Highway 20, install signage cautioning truck drivers to watch for farm equipment.

Less Than Significant with Mitigation Measure TRN-2

d) As mentioned in Section c) above, the driveway will need to meet CAL FIRE’s standards. The existing driveway is lightly graveled, and an additional 200 cubic yards of gravel will be added to improve fire apparatus access to the facility as described earlier. Fire apparatus turnaround will be provided. The existing encroachment from the parcel to SR20 will be improved to conform to the requirements of Caltrans standard driveway exit from a 55-mph road. Line-of-sight requirements conform to the 605’ minimum view in each direction for 55 mph traffic. Additional road base of 8 inches, with 2-1/2 inches of asphalt, will be added to create a more level ingress and egress for vehicle traffic along with widening to 30 feet and lengthening the driveway approach and apron area to 60 feet. The driveway will be paved from the existing edge of SR 20 to a new gate located at the 60’ mark. No ground disturbance is anticipated while building this encroachment. Drainage and erosion control will be provided in areas of concern. The 14’ wide driveway will be covered by filter fabric then 8” of rock (3/4”- 1” Washed Rock) will be placed over that then a layer of TrueGrid Permeable Pavers with a layer of fill rock of 1.8” (5/8”-3/4” washed rock). This driveway will conform to CAL FIRE Article 2 Ingress and Egress §1273.01. Width. (c) Driveways (minimum 10’W), §1273.02. Road Surfaces (b) support at least 40,000 pounds and §1273.05. Turnarounds (d) Dead-end turnaround at terminus of 1,320’.

Less Than Significant Impact

| XVIII. TRIBAL CULTURAL RESOURCES | Potentially Significant Impact | Less Than Significant with Mitigation Measures | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|--------------------------|
| Would the project Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: | | | | |
| a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | | | |
|---|--------------------------|-------------------------------------|--------------------------|--------------------------|
| Public Resources Code section 5020.1(k)? | | | | |
| b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Discussion

a) and b) A CRE was prepared for this project by John Parker on July 19, 2023, and the results are covered in Section V. The field inspection involved examining the ground for historic and prehistoric cultural materials and features. However, it was determined that dense vegetation hampered the inspection of the mineral soil over much of the project area and it is likely that isolated artifacts would have been missed. However, enough ground surface was visible to make sure any significant historic or prehistoric features or sites would have been recorded.

The Cultural Resource Evaluation recommends that in the unlikely event that buried cultural sites or features are encountered during the ground disturbance process, it is recommended that work in the immediate vicinity of the find be suspended, and a Registered Professional Archaeologist called in to evaluate the find as required by CEQA with California Resource Code Section 21083.2 referenced (Parker, 2023). This recommendation is further defined to cover training for workers and to provide specific steps should any archaeological, paleontological, or cultural materials be discovered during site development.

In accordance with AB 52, a Request for Response for consultation was sent out to the affiliated Tribes on September 27, 2023. As of April 7, 2024, no response has been received. Because of the rich tribal heritage present in Lake County, the following mitigation measures are added as a precautionary measure in case of inadvertent discovery of significant items, relics, artifacts or remains.

TCR 1: All on-site personnel of the project shall receive tribal cultural resource sensitivity training prior to initiation of ground disturbance activities on the project. The training must be according to the standards of the NAHC or the culturally affiliated tribe(s). Training will address the potential for exposing subsurface resources and procedures if a potential resource is identified. The training will also provide a process for notification of discoveries to culturally affiliated tribes, protection, treatment, care and handling of tribal cultural resources discovered or disturbed during ground disturbance activities of the Project. Tribal monitors will be required to participate in any necessary environmental and/or

safety awareness training prior to engaging in any tribal monitoring activities for the project.

TRC-2: If previously unidentified tribal cultural resources are encountered during the project altering the materials and their stratigraphic context shall be avoided and work shall halt immediately. Project personnel shall not collect, move, or disturb cultural resources. A representative from a locally affiliated tribe(s) shall be contacted to evaluate the resource and prepare tribal cultural resources plan to allow for identification and further evaluation in determining the tribal cultural resource significance and appropriate treatment or disposition.

TCR-3: Prior to commencement of ground disturbing activities, the permittee shall submit documentation to the Community Development Department demonstrating that they have engaged with the culturally affiliated tribe(s) to provide cultural monitors and that cultural sensitivity training has been provided to site workers.

TCR 4: The Project applicant must notify all Culturally Affiliated Tribes at least 45 days prior to commencement of any and all ground disturbance activities on the Project Site. All cultural resources unearthed by Project activities shall be evaluated by the Archeologist and monitor(s). The culturally affiliated tribe(s) must be notified and given an opportunity to inspect, determine the nature of the TCR, and determine the best course of action for avoidance, protection, and/or treatment of the resource to the extent permitted by law. If the resource is determined to be a TCR of value to a tribe, that Tribe will coordinate with the Permit Holder, Lake County Watershed Protection District (County Land/Resource Manager), and the Community Development Director to establish measures by which the Tribe may appropriately protect, treat, and dispose of TCR with dignity; which may include preservation and protection in situ or removal from the Project Site. The Permit Holder will allow the Tribes to facilitate treatment and disposition of the TCR to the extent permitted by law. No destructive or intrusive analysis of nor any photographing, video recording, or similar recording of TCRs shall be permitted by the Permit Holder, except as required by law.

Less Than Significant with Mitigation Measures TCR-1 - TCR-3

| XVIII. UTILITIES / SERVICE SYSTEMS | Potentially Significant Impact | Less Than Significant with Mitigation Measures | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|-------------------------------------|--------------------------|
| Would the project: | | | | |
| a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or communications | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

| | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| facilities, the construction or relocation of which could cause significant environmental effects? | | | | |
| b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) BuiComply with federal, state, and local management and reduction statutes and regulations related to solid waste | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion

a) Water would come from the two existing groundwater wells. A company would deliver and service toilets with sinks that would be services weekly. The site would provide its own power, utilizing the forest material to generate renewable energy as a microgrid. Microgrids are localized electric grids that can disconnect from the main grid to operate autonomously, even with the larger grid is down. Employees would have cell phones. This project would not need electric, natural gas, or communication services and therefore will have no effect on any of these types of facilities.

Less Than Significant Impact

b) There are two wells onsite with one needing to be refurbished. As mentioned in Section X, the Upper Lake Valley Groundwater Basin remains fully charged. The overall trend is that of a basin in equilibrium and not exhibiting signs of overdraft even with the recent drought (California Rural Water Association, 2023). However, after routing the project to the Lake County Public Services Department mitigation was added to address issues such as well permitting and setbacks from waterways, possible hazards, and reporting requirements including but not limited to CUPA.

Less Than Significant Impact HAZ-1 - HAZ-3

c) The project will produce minimal wastewater that would be treated by a local company that will service the portable toilet and sink. Servicing would occur weekly.

Less Than Significant Impact

d) C & S Waste Solutions would provide waste services for the project site. Solid waste would be generated from up to five employees and other manufacturing waste would be minimal. The Eastside Landfill is the final designation for the most solid waste throughout the County. The landfill’s remaining capacity is 2,859,962 tons and the cease to operate date is December 31, 2043 (CalRecycle, 2024).

Less Than Significant Impact

e) As proposed, the project would follow local, State, and federal management and reduction statutes and regulations related to solid waste.

Less Than Significant Impact

| XX. WILDFIRE | Potentially Significant Impact | Less Than Significant with Mitigation Measures | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|--------------------------|
| If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project: | | | | |
| a) Substantially impair an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion

a) and b) The project site is in a local responsibility area but is near state responsible areas. Meetings and several correspondences with the Northshore Fire District and the Lake County Building Division occurred for this project. As discussed in Section IX, a 27,625-gallon NFPA 1142 rated water storage tank will be required and has been incorporated into the project with HAZ-5.

In addition, due to concerns related to drying woody materials, and combustible materials possible taking hours to extinguish while there may be other emergencies in the service area needing attention, mitigation HAZ-6 was also incorporated into the project. In addition, the existing farm driveway will be updated to meet CAL FIRE standards which is required under California Fire Code f CCR 1273. Finally, a Knox Box (a rapid entry lock box) approved by the Northshore Fire District will be installed.

Less Than Significant with Mitigation Measures HAZ-5 and HAZ-6

c) A water storage tank would be installed for fire protection (HAZ-5). The existing driveway will need to be updated to meet the requirements of CCR 1273.

Less Than Significant with Mitigation Measure HAZ-5

d) The project site is flat. There would be no drainage changes except to contain rainwater from the membrane facility structure.

Less Than Significant Impact

| XXI. MANDATORY FINDINGS OF SIGNIFICANCE | Potentially Significant Impact | Less Than Significant with Mitigation Measures | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|--------------------------|
| | | | | |
| a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | | | |
|---|--------------------------|-------------------------------------|--------------------------|--------------------------|
| community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory? | | | | |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? (incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Discussion

a) Due to the project design, conditions of approval, and implementation of mitigation measures, impacts on the environment would be reduced to less than significant. Both a Biological Resource Assessment with Botanical Survey and Cultural Resource Evaluation were completed for the project. Mitigation measures to reduce impacts to animal and plant species and the habitat has been implemented to reduce impacts and include Aesthetics, Biological Resources, Cultural Resources, and Tribal Cultural Resources. To prevent the potential disturbance of cultural and tribal historical resources, mitigation will be incorporated. Workers will be trained to prevent disturbance of important historical resources from the past.

Less Than Significant with Mitigation Measures AES-1 and AES-2, BIO-1 – BIO-5, CUL - 1-CUL3, and TRC-1 – TRC-3.

b) A project’s cumulative impacts are based on an assessment of whether the “incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.” Past developments included the small home near State Highway 20. Currently, except for this proposed project, there are no other known planned projects in the Upper Lake. Future development is unknown, however based on past development in the unincorporated Upper Lake it would likely be minimal.

Potentially significant impacts have been identified related to the following criteria. Air Quality, Hazards and Hazardous Materials, Transportation, and Wildfire. These impacts in combination with the impacts of other past, present, and reasonably foreseeable future projects on the site could cumulatively contribute to significant effects on the environment. Implementation of and compliance with the mitigation measures identified in each section as Project Conditions of Approval would avoid or reduce potential impacts to less than significant levels and would not result in any cumulatively considerable environmental impacts.

Less Than Significant with Mitigation Measures AQ-1 – AQ-6, HAZ-1 – 5, TRN-1 and TRN-2

c) The proposed project has the potential to result in adverse indirect or direct effects on human beings. Air Quality, C, Geology and Soils, Hazards and Hazardous Materials, Transportation, and Wildfire. Implementation of and compliance with the mitigation measures identified in each section as conditions of approval would not result in substantial adverse indirect or direct effects on human beings and impacts would be considered less than significant.

Less Than Significant with Mitigation Measures AQ-1 – AQ-6, GEO-1, HAZ-1 – 5, TRN-1 and TRN-2

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Attachment 1: Mitigation Monitoring & Reporting Program (MMRP)

Attachment 2: Project Plans

Attachment 3: Biological Resource Assessment with Botanical Survey

Attachment 4: TrueGrid Pavers

Attachment 5: Artis 200 R2 Carbon Negative Fuel & Energy

Attachment 6: Water Tank NFPA 22 Compliant and Typical Suction Nozzle with Anti-Vortex

Attachment 7: The Mainspring Linear Generator

Attachment 8: Land Evaluation & Site Assessment (LESA)

Attachment 9: California’s Wildfire and Forest Resilience Action Plan