

Evaluation of Need for Environmental Documentation for
Use Permit 99-017A1 and an Addendum to the Eastside
Aggregates Project Environmental Impact Report
(SCH#200062079)

Use Permit 99-017A1
TLT Enterprises, LLC

July 8, 2016

Prepared by
SHASTA COUNTY DEPARTMENT OF RESOURCE MANAGEMENT
PLANNING DIVISION
1855 Placer Street, Suite 103
Redding, California 96001

SHASTA COUNTY
EVALUATION OF NEED FOR SUPPLEMENTAL ENVIRONMENTAL REVIEW CHECKLIST FORM AND
ADDENDUM TO EASTSIDE AGGREGATES PROJECT EIR (SCH# 200062079)

1. Project Title:

Use Permit 99-017A1 (TLT Enterprises, LLC)

2. Lead agency name and address:

Shasta County Department of Resource Management, Planning Division
1855 Placer Street, Suite 103
Redding, CA 96001-1759

3. Contact Person and Phone Number:

Lio Salazar, AICP
Senior Planner (530) 225-5532

4. Project Location:

The project site is located in the Burney area on the east side of State Highway 89, approximately 3.6 miles north of the intersection of State Highway 89 and State Highway 299 (24339 State Highway 89).

5. Applicant Name and Address:

TLT Enterprises, LLC
24339 State Highway 89
Burney, CA 96013

6. General Plan Designation:

Industrial (I)

7. Zoning:

General Industrial (M) and Commercial-Light Industrial combined with Design Review (CM-DR)

8. Description of Project:

TLT Enterprises, LLC (Hat Creek Construction and Materials, Inc.) seeks to amend Use Permit 99-017 to allow for development of a 3-megawatt (MW), community-scale bioenergy facility. The Burney-Hat Creek Bioenergy Facility (project) would be located on a 343-acre property at 24339 State Highway 89. 343-acre project site was formerly used for lumber mill and is currently used by Hat Creek Construction and Materials, Inc. for offices, construction equipment storage, an asphalt plant, a concrete plant, a rock quarry, wild rice cultivation, and a brewery. The project would be developed on a previously disturbed but currently unused 9-acre portion of the site.

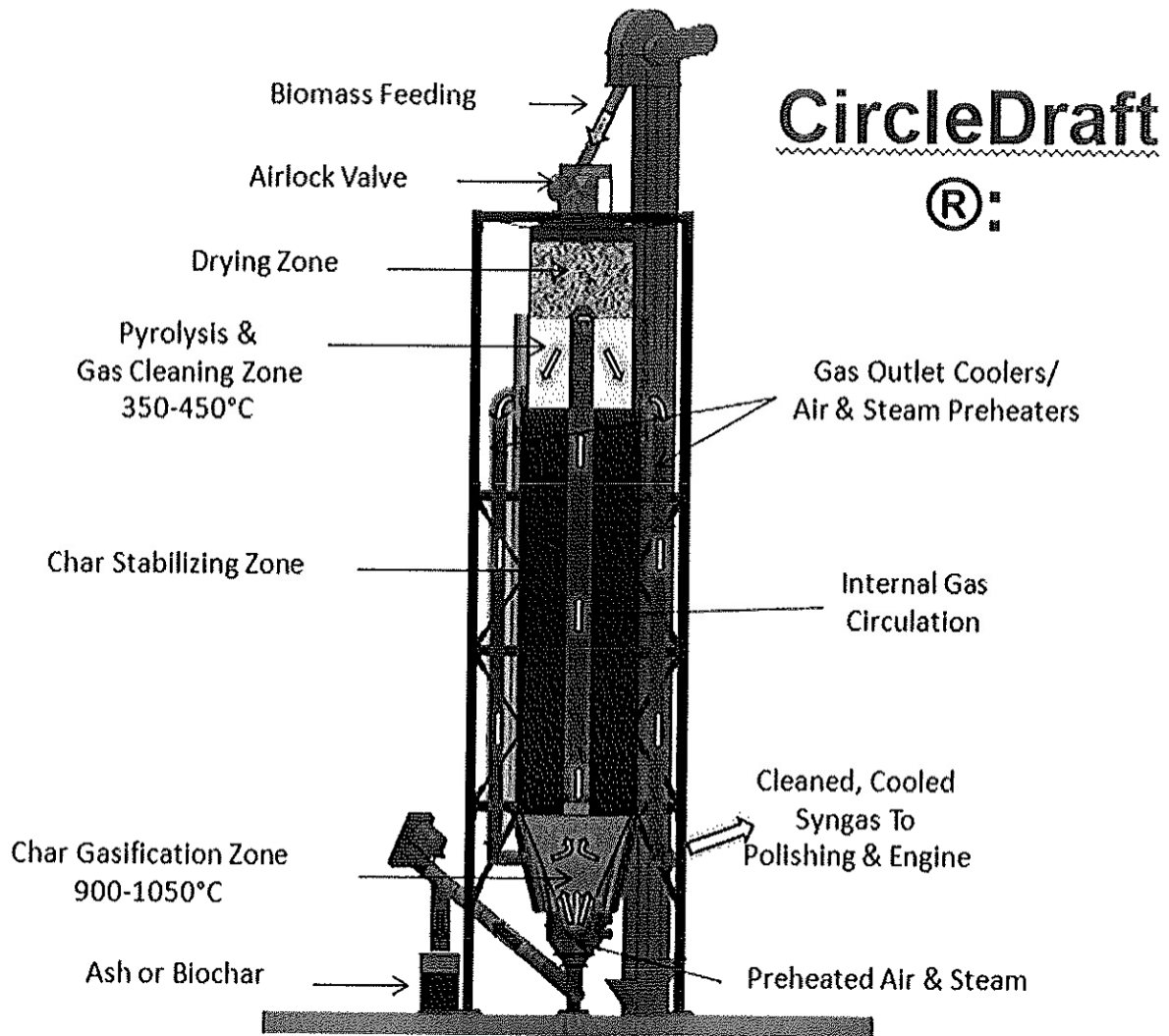
The proposed biomass gasification system would use a gasification reactor such as the one designed by West Biofuels, to produce up to 3MW of electricity for wholesale export to the power grid, after power use by the equipment itself is accounted for, and a "biochar" byproduct for sale as an agricultural amendment. Unlike traditional biomass power generation systems which use heat generated from burning biomass to produce steam that drives a steam turbine electric generator, a biomass gasification system uses applied heat and pressure to chemically break down the feedstock to produce combustible "syngas" through a chemical reaction. The syngas is then used to fuel an internal combustion engine electric generator.

Fuel for the gasifier is batch fed at the top of the reactor. Once in the reactor, the feedstock begins in the drying zone where moisture is evaporated. When dry, the feedstock moves to the pyrolysis zone. The pyrolysis zone maintains the temperature of 350°C to 450°C where the volatile gases are driven from the carbon structure of the wood, creating biochar and

producing gas. The gas is then pulled through the char stabilizing zone which acts as an initial filter for the gas.

From there it passes to the char gasification zone where a flue pipe in the middle of the gasifier allows the producer gases from the char gasification zone to recirculate to the pyrolysis zone of the reactor where it is removed after having passed through the biochar bed. The char then is removed from the bottom of the reactor and cooled below combustion temperatures.

During the process, limited air and recycled process water is injected into the char gasification zone to provide enough oxygen to maintain system heat. The temperature and pressure differential across the body of the reactor during the process allows for the circular gas flow through the gasifier body. A detail of a single CircleDraft gasifier unit is shown on the diagram below.



From the gasifier, the producer gas is piped to the gas conditioning system, which removes particulates, tars, and water from the gas stream. After the gas conditioning system, the gas is piped to a non-pressurized gas bladder. The bladder allows the producer gas to mix and provides approximately 15 minutes of gas storage, allowing the engine to draw on the gas supply to meet demand. The control system increases/decreases flow out of the gasifier in response to demand. When this adjustment is not sufficient, a flare is used to eliminate excess producer gas.

Electricity would be generated through the installation of syngas engine generators, a switchgear, and transformers. Engine-generators would be internal combustion engines designed for syngas and provided by well-known engine manufacturers, including Dresser-Rand (Guascor), Caterpillar, and/or General Electric (Jenbacher). Each engine would be equipped with the Maximum Available Control Technology (MACT) and/or Best Available Control Technology (BACT), as required and determined by the Shasta County Air Quality Management District Title V permit review process, to reduce hazardous air pollutant emissions.

It is expected that the project would use up to 22,000 bone dry tons of biomass annually. Biomass for the facility is expected to be derived as a byproduct of forest fuel load reduction activities, industrial timber-harvest operations, industrial forest thinning, and forest restoration work in the local area, as well as some residuals from similar non-industrial timber management activities in the local area. All fuels used in this project would meet the requirements of the California Public Utilities Commission BioMat Program which incentivizes the small scale production of power through the use of sustainably harvested forest byproducts as means to improve forest health and reduce greenhouse gas emissions from the energy sector. In order to qualify for the BioMat program, 80% of feedstock must be forest biomass derived waste in order to qualify for preferred pricing while 20% may be other wood that qualifies for the program in other categories such as agricultural or urban wood waste. Forest biomass must be "sustainable" as defined by the CPUC specifically for this program, as waste derived from (1) fire threat reduction activities (2) fire threat clearance activities, (3) Infrastructure clearance projects or "other" waste wood that must be analyzed through a check list that generally assures it comes from projects associated with current forest practice act and other federal and state rules. A majority of the Biomass used for the project would be chipped by independent timber operators in the field and delivered to the facility. The major components of the project include:

- Feedstock delivery
- Feedstock processing
- Feedstock conveyance
- Gasification
- Gas Conditioning
- Electrical generation
- Heat Recovery
- Biochar removal

Feedstock will be delivered to the site by chip truck and unloaded with a truck tipper or self-unload, if available. Feedstock will be moved into storage by a loader. Before use in the gasifier, feedstock will be processed with a deck screen to remove oversized feedstock, non-wood particles (rock, dirt, etc.), and fines. Feedstock received is estimated to contain 50 percent moisture and will be sent through an integrated heat recovery dryer to decrease moisture to between 10 and 20 percent prior to conveyance into the gasifier. The integrated heat recovery dryer will be a belt or drum dryer that uses process heat from the bio-gas generators to pre-dry the feedstock. A portion of the wood feedstock will be covered.

In the event of wildfire, storm events, diseased trees (beetle kill) or similar catastrophic events in the vicinity which may result in the need to remove affected trees to promote forest health, but are not otherwise merchantable as saw logs, may be brought onsite as part of the cleanup effort. A log storage area for such logs will be located adjacent to the site. These logs will be chipped onsite and used as feedstock. Storage and chipping of logs is expected to be intermittent.

Structures and Equipment Located Onsite

Necessary project construction will include the erection of a pole barn (approximately 2,500 square feet) to protect a portion of feedstock storage from moisture and wind. As the site is currently an active industrial site, only minor excavation of footings and finish-grading would be necessary. Rock will be laid over existing soil once graded. The existing paved employee parking lot will be used for employee parking. Auxiliary unpaved parking will be made available adjacent to the project site. Approximately 0.5 acres of paving will be completed underneath and adjacent to the gasification equipment.

Project equipment will include:

- Front-end loader
- Deck screen
- Feedstock dryer
- Six CircleDraft modular gasifiers
- Gas conditioning skids
- Buffering storage bladders
- Four 764kW syngas engine generators
- Switchgear
- Transformer

In addition to the equipment listed above, the project will include feedstock and biochar storage areas. Feedstock will be stored in windrows and used in a first-in first-out manner to avoid decomposition.

9. Surrounding Land Uses and Setting:

Lands to the north, east, and south are undeveloped timberland and open space with the exception of two parcels adjacent to the northwest corner of the project site which are used for residential purposes. Land to the west are also primarily composed of undeveloped timberland and open space, but a cluster of approximately 35 rural residential properties exists near the northwest corner of the project site. The majority of these properties are less-than two acres in size and are developed with single family residences except for one parcel that is developed with a recreational/mobile home park.

The project site has been operated as an industrial site since 1955. The site was originally developed in 1955 by the Lorenz Company as a large sawmill with a planer mill, log ponds, and log storage areas. The mill processed logs and later produced construction materials. In 1962, Farley and Loetscher constructed a plywood plant on the site. The sawmill was sold to and operated by the Fibreboard Corporation, Louisiana-Pacific Corporation, and again by Fibreboard Corporation. The plywood plant closed in 1985 and the sawmill closed in 1989.

Hat Creek Construction and Materials purchased the site and applied for a use permit in 1998 for operation of a construction yard, quarry, rock crusher, asphalt plant, and concrete batch plant and other uses. At the time the application for the use permit was made the site was being used as their headquarters. The Eastside Aggregates Project Environmental Impact Report (SCH#2000062079) was completed in August 2000 for various operations proposed in the use permit which, in addition to those described above included, Hat Creek Construction's proposed commercial construction yard including a concrete trailer rental site, an outdoor sales area for landscaping materials and a repair shop for the repair of company-owned vehicles. To allow for these operations to occur, 24 acres of the Hat Creek Construction site were rezoned from M (General Industrial) to C-M (Commercial-Light Industrial). Shasta County Use Permit 99-017 which include the industrial operations proposed at the time was approved on November 30, 2000 for a period of 30 years.

The site currently operates as a rock quarry (Eastside Aggregates) with screening and crushing operations, a concrete batch plant, and an asphalt batch plant on the site. The mine and construction materials operation occur on 85.48 acres of a 343-acre parcel. The quarry operation (Reclamation Plan No. 99-01) extracts between 30,000 and 45,000 cubic yards of material annually. Material extraction is completed by removal of loose rock by loader and excavator with a breaker. The rock is blasted at a maximum of six times per year. Excavated material is transported to stockpiles where it is screened and/or crushed prior to sale. The ready-mix concrete batch plant consists of silos, a gathering hopper, and a mixer and has an output of 8,000 cubic yards per year on average. The concrete batch plant operates Monday through Friday, and occasionally on Saturdays, from 4:00 a.m. to 8:00 p.m. The asphalt plant has cold aggregate bins, a dryer, a pug mill for mixing the aggregate with asphalt oil, a heated storage bin, and conveyors. The asphalt oil is stored in a heated tank. The asphalt batch plant has a permitted average annual production of 100,000 cubic yards. Operating hours of the asphalt batch plant are the same as for the concrete batch plant. The commercial construction yard operates within the C-M zone under Shasta County Use Permit No. 99-005 which was evaluated in the 2000 EIR and approved in November 2000.

In 2013, UP99-005 was modified to allow for operation of a 50-barrel brewery (producing up to 62,400 barrels/year). The brewery operations are conducted within a 2,500 square-foot metal building with an adjacent outdoor storage area located

within the C-M zone. Due to the small scale of the brewery operations, its dissimilarity to uses previously approved for the property, and location with the C-M zone; a new environmental document (Mitigated Negative Declaration-SCH#2013032019) was prepared for the brewery project.

The current mine and construction materials operation operates under County Use Permit No. 99-017, also adopted following certification of the 2000 Eastside Aggregates Project Environmental Impact Report (EIR) by the Shasta County Board of Supervisors. Due to the applicant's desire to expand their existing industrial use of the property, the similarity and proximity of the proposed project to heavy industrial uses evaluated in the 2000 EIR and approved for the property, and its proposed location within the General Industrial (M) zone district; the County has determined that consideration of the gasification plant proposal is within the scope of the 2000 Eastside Aggregates EIR and that it would be appropriate to determine what level of environmental documentation is necessary for the proposed Use Permit amendment subject to an evaluation of the proposal with respect to Section 15162 of the California Environmental Quality Act (CEQA) Guidelines.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.):

Shasta County Air Quality Management District
State of California Regional Water Quality Control Board

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

| | | | | |
|-------------------------------|--|------------------------------------|--|--------------------------|
| Aesthetics | | Agricultural Resources | | Air Quality |
| Biological Resources | | Cultural Resources | | Geology / Soils |
| Hazards & Hazardous Materials | | Hydrology / Water Quality | | Land Use / Planning |
| Mineral Resources | | Noise | | Population / Housing |
| Public Services | | Recreation | | Transportation / Traffic |
| Utilities / Service Systems | | Mandatory Findings of Significance | | |

DETERMINATION: (To be completed by the Lead Agency)

On the basis of the initial evaluation:

- I find that NONE of the conditions described in SECTION 15162 OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT would occur as a result of the proposed project and the proposed project WOULD NOT require the preparation of a SUBSEQUENT ENVIRONMENTAL IMPACT REPORT, SUPPLEMENT TO THE ENVIRONMENTAL IMPACT REPORT, or ADDENDUM TO THE ENVIRONMENTAL IMPACT REPORT and NO FURTHER DOCUMENTATION will be prepared.
- I find that NONE of the conditions described in SECTION 15162 OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT would occur as a result of the proposed project and the proposed project WOULD NOT require the preparation of a SUBSEQUENT ENVIRONMENTAL IMPACT REPORT or SUPPLEMENT TO THE ENVIRONMENTAL IMPACT REPORT, and only MINOR TECHNICAL CHANGES OR ADDITIONS TO THE EIR are necessary. This document shall serve as an ADDENDUM TO THE ENVIRONMENTAL IMPACT REPORT.
- I find that ONE OR MORE of the conditions described in SECTION 15162 OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT would occur as a result of the proposed project and that ONLY MINOR REVISIONS are necessary to make the EIR ADEQUATELY APPLY to the proposed project. A SUPPLEMENT TO THE ENVIRONMENTAL IMPACT REPORT will be prepared.
- I find that ONE OR MORE of the conditions described in SECTION 15162 OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT would occur as a result of the proposed project and that MAJOR REVISIONS are necessary to make the EIR ADEQUATELY APPLY to the proposed project. A SUBSEQUENT ENVIRONMENTAL IMPACT REPORT will be prepared.

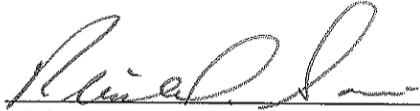
Copies of the evaluation of and related materials and documentation may be obtained at the Planning Division of the Department of Resource Management, 1855 Placer Street, Suite 103, Redding, CA 96001. Contact Lio Salazar, Senior Planner at (530) 225-5532.



Lio Salazar, AICP
Senior Planner

7/8/16

Date



Richard W. Simon, AICP
Director of Resource Management

7/8/2016

Date

EVALUATION OF NEED FOR SUPPLEMENTAL ENVIRONMENTAL REVIEW:

- 1) A brief explanation is provided for all answers that are adequately supported by the information sources cited by the lead agency. A "N/A" answer is adequately supported if all 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 "N/A" answer should be explained in the EIR 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.
- 3) Once the lead agency has determined that a particular physical impact may occur from the project, then the checklist answers must indicate whether the impact would cause any of the conditions described in Section 15162 of the California Environmental Quality Act to occur. If there are one or more entries (columns 2, 3, and 4) are affirmative when the determination is made, a subsequent EIR or supplement to the EIR is required.
- 4) 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 "Yes" answers in the "Do the Eastside Aggregates EIR Mitigation Measures Address/Resolve Impacts," the mitigation measures are fully described in the EIR.
- 5) Lead agencies are encouraged to incorporate into the record checklist references to information sources used for evaluating the project (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.
- 6) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 7) A document of this form is not required to be completed by lead agencies; however, lead agencies may utilize this or a similar form to provide substantial evidence and information relevant to a project's environmental effects where a prior EIR has been certified for a project.

| I. AESTHETICS: Would the project: | Environmental Issue Area Where Impact Was Analyzed in the Eastside Aggregates Project FEIR. | Would the Proposed Changes Involve New or Substantially More Severe Significant Impacts? | Would Any New Circumstances Involve New or Substantially More Severe Significant Impacts? | Is There Any Substantially Important New Information the Analysis of Which Shows New or Substantially More Severe Significant Impacts? | Would the Eastside Aggregates Project EIR Mitigation Measures Continue to Adequately Address/Resolve Impacts from the Project? |
|--|---|--|---|--|--|
| a) Have a substantial adverse effect on a scenic vista? | Section 4.2- Impact 4.2.2 | No | No | No | N/A |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway? | Section 4.2- Impact 4.2.1 and 4.2.2 | No | No | No | Yes |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings? | Section 4.2- Impact 4.2.1 and 4.2.2 | No | No | No | Yes |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | Section 4.2- Impact 4.2.3 | No | No | No | Yes |

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

a-b) The project site is located in a region considered to have high scenic value. Lassen Peak is visible to the south. Mt. Shasta may be seen to the north. The vicinity and project site are forested. A bluff along the eastern boundary of the project site is the most prominent visual feature onsite. The bluff is visible from portions of SR 89 as it extends beyond the project site boundaries for approximately two miles.

State Route 89 has been designated an “eligible” scenic highway under the California Scenic Highway Program. The status of a state scenic highway changes from “eligible” to “officially designated” when the local jurisdiction adopts a scenic corridor protection program, applies for scenic highway approval to Caltrans, and receives notification from Caltrans that the highway has been designated a Scenic Highway. To date, the County, which has jurisdiction over lands visible from the segment of SR 89 that passes by the project site, has not adopted a scenic corridor protection program. State Route 89 is also designated as part of a Volcanic Legacy Scenic Byway. This designation does not impose any regulations on land uses located adjacent to the byway.

Visibility of the project site from SR 89 varies depending on the presence and density of vegetation within a forested buffer along the highway. The buffer varies in width and is narrowest along an approximately 700-foot segment near the northwestern corner of the property where no onsite improvements or operations exist. Along other segments of SR 89, the buffer exceeds 500 feet in width. At the entrance to the site, existing buildings and equipment onsite can be seen from SR 89.

The gasification plant gasifiers and attached feed stock conveyer would stand approximately 44-feet high which is less-than the 45-foot maximum height limitation of the M zone district. The feed stock conveyance stack would stand approximately 46-feet high at its highest point. This minor exceedance of the M zone district maximum height limitation is permissible with approval of a use permit. Fire safety standards would limit the height of feedstock piles to 30 feet.

The proposed gasification plant would be located in an area where the existing buffer is widest and/or densest. Mature pine trees that buffer views of the site and aesthetic features in the vicinity would be expected to exist or grow to a similar or greater height than the proposed equipment. Therefore, the project would not have a substantial adverse effect on a scenic vista degrade the existing visual character or quality of the surroundings or substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway.

c) The proposed gasification plant would be located on disturbed and open ground near the existing mining operation and would be visually consistent with the current use of the property. The project would not degrade the existing visual character or quality of the surroundings because in addition to being near the existing mining operation and visually consistent with the

existing use of the property, the visual impacts of the gasification plant would be adequately screened and/or obscured from view by the existing forested buffer

- d) Overnight operation of the gasification equipment would be automated. Night lighting would consist primarily of security lighting as the need for task lighting would be limited to instances where automation fails and attention or repair is necessary. Proposed project lighting will not significantly increase nighttime lighting used at the site. The facility's current use permit requires that lighting be shielded and/or directed so that it does not shine offsite as required by the Shasta County zoning code. These requirements would also apply to the proposed project. Therefore, the project will not create intense light or glare that causes a nuisance or hazard beyond the property line or create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

| <p>II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural, Land Evaluation and Site Assessment Mode (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:</p> | <p>Environmental Issue Area Where Impact Was Analyzed in the Eastside Aggregates Project EIR.</p> | <p>Would Proposed Changes Involve New or Substantially More Severe Significant Impacts?</p> | <p>Would Any New Circumstances Involve New or Substantially More Severe Significant Impacts?</p> | <p>Is There Any Substantially Important New Information the Analysis of Which Shows New or Substantially More Severe Significant Impacts?</p> | <p>Would the Eastside Aggregates Project EIR Mitigation Measures Continue to Adequately Address/Resolve Impacts from the Project?</p> |
|--|---|---|--|---|---|
| <p>a) Convert Prime Farmland, Unique Farmland, or Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?</p> | <p>The Initial Study determined that there would be no impact</p> | <p>No</p> | <p>No</p> | <p>No</p> | <p>N/A</p> |
| <p>b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract?</p> | <p>The Initial Study determined that there would be no impact</p> | <p>No</p> | <p>No</p> | <p>No</p> | <p>N/A</p> |
| <p>c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?</p> | <p>The Initial Study determined that there would be no impact</p> | <p>No</p> | <p>No</p> | <p>No</p> | <p>N/A</p> |

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

- a) The subject property is outside the limits of the study area for the map titled Shasta County Important Farmland 2012.
- b-c) The site is zoned General Industrial (M). It is not part of a Williamson Act contract. Neither are the surrounding properties in a Williamson Act Contract. The surrounding properties are zoned Timber Production (TP) and Unclassified (U). Promoting agricultural use and/or recognizing the agricultural capability of land is not the primary purpose of these zone districts, but they do allow for agricultural use. The area of the project site that would be developed with the proposed facility is not being used for agriculture or forest management and has been significantly disturbed by past and present industrial use of the project site.

The development of alternative uses for biomass produced by forest thinning and fuels reduction projects may indirectly result in healthier and more resilient forests through removal of the wood waste products and thinning residue, which will decrease risk of wildfire and improve forest growth and forest health. Reduced wildfire emissions and alternatives to pile burning would reduce emissions of black carbon and provide a positive benefit to with respect to global climate change. Because the project supports sustainable forest management activities and related businesses, timberlands will be more likely to stay in a forest condition and not be converted to non-timber uses by catastrophic fire or economic driven conversion. The proposed use would not result in any physical change in the environment, such as a new roads or other obstructions, changes in traffic

patterns, introduction of sensitive receptors, or other physical change, that would result in the conversion of Farmland to non-agricultural use, conversion of timberland to non-forest use, or significantly conflict with the agricultural or forest management use of adjacent properties.

| <p>III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:</p> | <p>Environmental Issue Area Where Impact Was Analyzed in the Eastside Aggregates Project EIR.</p> | <p>Would Proposed Changes Involve New or Substantially More Severe Significant Impacts?</p> | <p>Would Any New Circumstances Involve New or Substantially More Severe Significant Impacts?</p> | <p>Is There Any Substantially Important New Information the Analysis of Which Shows New or Substantially More Severe Significant Impacts?</p> | <p>Would the Eastside Aggregates Project EIR Mitigation Measures Continue to Adequately Address/Resolve Impacts from the Project?</p> |
|---|---|---|--|---|---|
| <p>a) Conflict with or obstruct implementation of the applicable air quality plan?</p> | <p>Section 4.3- Impacts 4.3.1, 4.3.3, and 4.3.5</p> | <p>No</p> | <p>No</p> | <p>No</p> | <p>Yes</p> |
| <p>b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?</p> | <p>Section 4.3- Impacts 3.2-1, 3.2-2. 3.2-5</p> | <p>No</p> | <p>No</p> | <p>No</p> | <p>Yes</p> |
| <p>c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emission which exceed quantitative thresholds for ozone precursors)?</p> | <p>Section 4.3- Impacts 4.3.1, 4.3.3, and 4.3.5</p> | <p>No</p> | <p>No</p> | <p>No</p> | <p>Yes</p> |
| <p>d) Expose sensitive receptors to substantial pollutant concentrations?</p> | <p>Section 4.3- Impact 4.3.2</p> | <p>No</p> | <p>No</p> | <p>No</p> | <p>N/A</p> |
| <p>e) Create objectionable odors affecting a substantial number of people?</p> | <p>Section 4.3- Impact 4.3.4</p> | <p>No</p> | <p>No</p> | <p>No</p> | <p>N/A</p> |
| <p>f) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?</p> | <p>Not Analyzed</p> | <p>No</p> | <p>No</p> | <p>No</p> | <p>N/A</p> |
| <p>g) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?</p> | <p>Not Analyzed</p> | <p>No</p> | <p>No</p> | <p>No</p> | <p>N/A</p> |

Discussion: Based on related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, and the attached Appendix A (Air Quality and Greenhouse Gas Emissions Background, the following findings can be made:

- a) No impacts are identified as a result of this project.
- b) Emissions vary depending on the biomass resource, the type of conversion technology, and the pollution controls installed. Most biomass resources and natural gas contain far less sulfur, mercury, and NOx emissions than conventional coal plants.

Overall, the project will have a net-benefit to the environment and will not violate any air quality standard or contribute to any air quality violation, as shown in Table 7 of Appendix A there will be no impact.

- c) This project would not result in a cumulatively considerable net increase of any criteria pollutant, including ozone, ozone precursors or PM10, for which Shasta County is in non-attainment under the applicable ambient air quality standard. Construction activity would result in emissions of fugitive dust and diesel from vehicular traffic. All construction-related air emissions would be intermittent, of limited duration, and of low quantities with respect to emissions that normally occur in the area and are expected to be negligible.

The project will require feedstock to be delivered to the facility via covered haul truck; therefore, fugitive emissions will be generated in small quantities. These deliveries will be intermittent throughout the day and not expected to concentrate in any significant quantity. As stated above, mitigation factors required are inherent to the project. Actual emissions are expected to have a less than significant impact to ambient air quality.

- d) A sensitive receptor is a location where human populations, especially children, seniors, and sick persons, are present and where there is a reasonable expectation of continuous human exposure to pollutants. Examples of sensitive receptors include residences, hospitals, and schools. There are existing residences located just over a half-mile from the project which are located across SR 89 to the northwest of the project site. There are no schools within close proximity to the project site.

The proposed project is not anticipated to expose sensitive receptors to toxic air contaminants. While a project-specific Health Risk Assessment (HRA) has not been conducted for this site, the only sensitive receptors are located to the northwest and over a half-mile from the site. The project site is located on an existing, active mine site and across SR 89. The approximately 28 residences and intermittent recreational users, located to the northwest are the only sensitive receptors located within a one-mile radius of the facility. The surrounding area is empty land. Furthermore, the prevailing wind direction in the Burney basin is out of the northeast and would not be expected to transport TACs in the direction of the sensitive receptors. Therefore, the plume from the proposed project is expected to move to the southwest, away from the nearby sensitive receptors. This plume will dissipate over distance and any TACs are expected to be negligible prior to reaching any sensitive receptors in that direction. Therefore, the effect of this project is expected to be less than significant.

- e) The construction of the project would result in temporary diesel exhaust emissions from onsite construction emissions. With the idling limits imposed on the site, diesel exhaust emissions would be limited and likely to dissipate quickly. Furthermore, the project site is located on an existing mine site and across the highway from the residence. Diesel emissions from the project site are not expected to cause a significant increase in odor.

Odors could potentially result should the feedstock piles be stored long enough such that decomposition begins. This would be unlikely as the feedstock usage at the facility will generally move in a first-in, first-out basis and will be stored under the pole barn.

Because project operations would include the first-in, first-out practice that will guard against decomposition in feedstock storage piles, because the nearest sensitive receptor is located over a half-mile up wind from the project site, and because the site is located on an existing operating mine site and across SR 89, the project is not expected to create objectionable odors that will affect a substantial amount of people. Records of odor complaints from the Wheelabrator biomass facility in Anderson, CA, which stores much greater volumes of biomass fuels, show that odor impacts are greatest very near the facility and well within one-half mile of facility. This project is not expected to create any significant impact over current baseline conditions.

- f-g) Burning woody biomass for energy can be considered “carbon neutral” within the context of the State of California’s plans, programs, and legislation to address global climate change as explained in the attached Appendix A. In addition, when taking into consideration the fact that the biomass that will be utilized would have otherwise been open-pile burned or left to decompose, the removal of this waste and its associated emissions has a net-positive effect on the environment. Based on the avoided emissions from the alternative fates of the wood waste and the accepted position by state and federal agencies that biomass to energy is “carbon neutral,” are below the threshold of 25,000 metric tons of CO₂e per year. The effect of this project on GHG emissions is less than significant. An explanation for the use of carbon neutrality and a 25,000 metric tons of CO₂e per year threshold of significance for the proposed facility is provide in the attached Appendix A

Shasta County has not yet developed a level of significance for CO emissions. However, using a significance threshold of 25,000 metric tons of CO₂e per year, the project will not have a significant impact. California AB 32 Scoping Plan was developed to produce an 80 percent reduction of 1990 GHG emissions levels by 2050. As part of this program, emissions entities are incentivized to use cleaner alternatives – such as biomass. This project is consistent with these initiatives.

Greenhouse gas emissions represents new information of substantial importance that was not known at the time the EIR was certified. This information could have been known with reasonable diligence at the time the EIR was certified, but analysis of greenhouse gas impacts as part of the CEQA process was not common in practice, specifically required by CEQA, or a standard of environmental review for project in Shasta County and therefore, was not presented and analyzed in the EIR.

These impacts are now required to be considered in the CEQA process and have been analyzed for the proposed project. The analysis shows that potential greenhouse gas impacts would be less-than-significant and not cumulatively considerable. The greenhouse gas analysis also shows that none of conditions described in Section 15162 of the CEQA guidelines requiring a subsequent or supplemental EIR would result from greenhouse gas generated by activities associated with the proposal.

| IV. BIOLOGICAL RESOURCES: Would the project: | Environmental Issue Area Where Impact Was Analyzed in the Eastside Aggregates Project EIR. | Would Proposed Changes Involve New or Substantially More Severe Significant Impacts? | Would Any New Circumstances Involve New or Substantially More Severe Significant Impacts? | Is There Any Substantially Important New Information the Analysis of Which Shows New or Substantially More Severe Significant Impacts? | Would the Eastside Aggregates Project EIR Mitigation Measures Continue to Adequately Address/Resolve Impacts from the Project? |
|--|--|--|---|--|--|
| a) Have a substantial 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? | The Initial Study determined that there would be a less-than-significant impact | No | No | No | N/A |
| 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? | Section 4.4- Impact 4.4.1 and 4.4.3 | No | No | No | Yes |
| c) Have a substantial adverse effect on Federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | Section 4.4- Impact 4.4.2 | No | No | No | Yes |
| 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? | The Initial Study determined that there would be a less-than-significant impact | No | No | No | N/A |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | The Initial Study determined that there would be a less-than-significant impact | No | No | No | N/A |
| 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? | The Initial Study determined that there would be a less-than-significant impact | No | No | No | N/A |

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

- a,b,c) The proposed gasification plant would be located on a portion of the project site that has been significantly disturbed by past and present industrial use of the project site. This portion of the project site is located within the survey boundary of biological surveys conducted for the Use Permit. It was determined that there were no species identified as a candidate, sensitive, or special-status species, riparian habitat or other sensitive natural community, or vernal pools or a wetland indicator species, within the area proposed for development. A wetland study prepared by the U.S. Army Corps of Engineers in 1999 delineated 0.71 acres of the ponding area at the northern portion of the property as waters of the U.S. The proposed project is located on the southern end of the site and is not expected to have an impact on the wetland areas. CDFW determined in 1996 that, other than these wetland areas, the Hat Creek Construction and Materials site has little significant value as wildlife habitat. In addition, CDFW reviewed a project referral for this proposal and indicated that the agency had no significant CEQA related concerns because the project would be developed on a disturbed portion of the project site.
- d) The general operational characteristics of the proposed use, including the use of mobile equipment, conveyance system, engine noise, etc., are similar to those of the existing quarry operations. One osprey nest structure was observed during biological surveys conducted for the existing use permit. As a result potential impacts on nesting osprey and bald eagles from noise generated by quarry blasting were determined to be potentially significant. Mitigation measures, including annual nesting surveys to detect for the presence of active bald eagle and osprey nests within one-quarter mile of the active operational areas of the quarry and the suspension of blasting activities if a nest(s) are discovered, were adopted to reduce biological impacts from blast noise to a less-than-significant level. Potential impacts on nesting bald eagle and osprey from other general operational characteristics of the quarry operation were not considered significant. No nest structures have been observed during monitoring visits in the last several years. The proposed project would not involve any blasting. Therefore, the proposed project would not significantly impact nesting bald eagle or osprey, or significantly increase the severity of impacts determined to be significant in evaluating the existing use.
- e) A review of Section 6.7 of the General Plan indicates that the proposed project would not conflict with the Shasta County objectives or policies for Fish and Wildlife Habitat.
- f) There are no adopted Habitat Conservation Plan, Natural Community, Conservation Plan, or other approved local, regional, or State habitat conservation plans for the project site or project area.

| V. CULTURAL RESOURCES – Would the project: | Environmental Issue Area Where Impact Was Analyzed in the Eastside Aggregates Project EIR. | Would Proposed Changes Involve New or Substantially More Severe Impacts? | Would Any New Circumstances Involve New or Substantially More Severe Significant Impacts? | Is There Any Substantially Important New Information the Analysis of Which Shows New or Substantially More Severe Significant Impacts? | Would the Eastside Aggregates Project EIR Mitigation Measures Continue to Adequately Address/Resolve Impacts from the Project? |
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| a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5? | Section 4.1.4 | No | No | No | Yes |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | Section 4.1.4 | No | No | No | Yes |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | The Initial Study determined that there would be no impact | No | No | No | N/A |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | Section 4.1.4 | No | No | No | Yes |

project, observations on the project site and in the vicinity, the following findings can be made:

- a-b) The site has been substantially disturbed in the past during the construction and operation of the large lumber mill which occupied the site from the late 1950s until 1989 and through Hat Creek Construction and Material's operations in the more recent past. Cultural resource records and other information for the area and the site were reviewed by the Northeast Center of the California Historical Resources Information System at Chico State University (CHRIS) in 1999 and again in 2016. The Center in 1999 determined that the project site was not located within an area of high sensitivity and a site-specific historical or archeological study was not recommended. In a response to a project referral for the current proposal CHRIS indicated that, in conflict with the 1999 recommendations, the site was an area considered to be highly sensitive for prehistoric and historic cultural resources. Nevertheless, the area on which the project will be developed is significantly disturbed, the project will not require extensive subsurface excavation, and no prehistoric or historic cultural resources have been discovered during mining operations or other development and operational activities at the site. Therefore, the project is not anticipated to result in significant impacts to historical or archaeological resources.
- c) There are no known paleontological resources on the site. A review of the Preliminary Paleontological Resource Assessment Map of Shasta County, California, prepared by Hugh M. Wagner, dated July 31, 1991, shows that the project site is in an area of no paleontological importance. The project will have no effect on any unique geologic features and is not anticipated to have any impacts.
- d) Research of records and related data indicates that no formal cemeteries or other human remains are known to exist on the site; as such, the project is expected to have no impact. In the event that human remains are encountered during or subsequent to ground-disturbing activities, work will cease immediately near the area and not resume until applicable regulations have been followed, including, but not limited to, immediately contacting the County Coroner's office and requesting consultation with the responsible agencies.

| <u>VI. GEOLOGY AND SOILS</u> – Would the project: | Environmental Issue Area Where Impact Was Analyzed in the Eastside Aggregates Project EIR. | Would Proposed Changes Involve New or Substantially More Severe Significant Impacts? | Would Any New Circumstances Involve New or Substantially More Severe Significant Impacts? | Is There Any Substantially Important New Information the Analysis of Which Shows New or Substantially More Severe Significant Impacts? | Would the Eastside Aggregates Project EIR Mitigation Measures Continue to Adequately Address/Resolve Impacts from the Project? |
|---|--|--|---|--|--|
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: 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 area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publications 42. ii) Strong seismic ground shaking? iii) Seismic-related ground failure, including liquefaction? iv) Landslides? | Section 4.5- Impact 4.5.1, 4.5.2, and 4.5.3 | No | No | No | Yes |
| b) Result in substantial soil erosion or the | Section 4.5- | No | No | No | Yes |

| VI. GEOLOGY AND SOILS – Would the project: | Environmental Issue Area Where Impact Was Analyzed in the Eastside Aggregates Project EIR. | Would Proposed Changes Involve New or Substantially More Severe Significant Impacts? | Would Any New Circumstances Involve New or Substantially More Severe Significant Impacts? | Is There Any Substantially Important New Information the Analysis of Which Shows New or Substantially More Severe Significant Impacts? | Would the Eastside Aggregates Project EIR Mitigation Measures Continue to Adequately Address/Resolve Impacts from the Project? |
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| loss of topsoil? | Impact 4.5.4 | | | | |
| 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- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? | Section 4.5- Impact 4.5.1, 4.5.2, 4.5.3 | No | No | No | Yes |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? | Section 4.5- Impact 4.5.5 | No | No | No | Yes |
| 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? | The Initial Study determined that there would be no impact | No | No | No | N/A |

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project observations on the project site and in the vicinity, the following findings can be made:

a) The project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault;

According to the California Division of Mines and Geology Earthquake Fault Zones (EFZ) Map of the project area, there is an active earthquake fault line which runs along the base of the steep slope that separates the upper and lower portions of the project site. The Alquist-Priolo Earthquake Fault Zones Act requires that no commercial or industrial structures be located within the fault zones (300 feet on either side) delineated on the official map. No buildings or structures for the proposed project will be located within this zone.

ii) Strong seismic ground shaking;

Even if they are not located within the EFZ, structures on the project site could remain subject to a potential ground-shaking hazard, caused by potential activity on the fault. The current use permit requires that no permanent or fixed structures be located within the boundaries of the Earthquake Fault Zone as shown on the Earthquake Fault Zones map, Cassel Quadrangle, prepared by the State Geologist; and that construction of structures and the installation of equipment and buildings be in compliance with all State and local seismic safety regulations and building codes. Implementation of these reduces the potential severity of damage to structures on the project site, which would also increase the safety of people on the project site during a seismic event. With these requirements, there is no impact over baseline condition.

iii) Seismic-related ground failure, including liquefaction;

Seismic-related ground failure includes lateral spreading, lurch cracking, and liquefaction. Lateral spreading is a secondary result of severe shaking and includes the actual horizontal movement of unconfined alluvium toward lower areas. Severe ground shaking also can induce near-surface cracks in alluvium, or lurch cracking. Liquefaction occurs when loose, saturated

granular soil deposits lose their strength due to a sudden excess in water pressure. This buildup is induced by an earthquake. Liquefaction tends to occur in areas near water or within shallow groundwater.

The project site is located on a valley floor underlain by basalt, with no alluvium. Therefore, it is unlikely to experience lateral spreading or lurch cracking. The only likely places where liquefaction would occur is around the pond located south of the former log ponds. Liquefaction at the pond, if it occurs, would likely be confined to its edges. No structures are planned to be constructed near the pond.

iv) Landslides.

The project is located on pre-existing cleared and leveled ground within the Hat Creek Construction and Materials site and is not expected to expose people to additional landslide risk.

- b) The project site has already been significantly disturbed by prior operations. Minimal topsoil-moving activities are proposed as a part of this project and is expected to have a less than significant effect. A grading permit is required prior to any grading activities. The grading permit would include requirements for erosion and sediment control, including retention of topsoil and be subject to the requirements of Mitigation Measure MM 4.5.4a.
- c) The project site is located on an active industrial mining site which includes asphalt and concrete batch plants. The proposed project will be constructed on already disturbed ground on the industrial areas of the site. The project will not contribute any of the above hazards and impacts are expected to be less than significant.
- d) The soil in the area of the project site is located in the Burney-Arkrigh complex which has a low shrink-swell potential. The project is expected to have no impact.
- e) The project will use the two existing septic systems on the Hat Creek Construction and Materials site. There is no change to baseline; therefore, there will be no impact.

| VII. HAZARDS AND HAZARDOUS MATERIALS: Would the project: | Environmental Issue Area Where Impact Was Analyzed in the Eastside Aggregates Project EIR. | Would Proposed Changes Involve New or Substantially More Severe Significant Impacts? | Would Any New Circumstances Involve New or Substantially More Severe Significant Impacts? | Is There Any Substantially Important New Information the Analysis of Which Shows New or Substantially More Severe Significant Impacts? | Would the Eastside Aggregates Project EIR Mitigation Measures Continue to Adequately Address/Resolve Impacts from the Project? |
|--|--|--|---|--|--|
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | Section 4.6- Impact 4.6.3 | No | No | No | Yes |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | Section 4.6- Impact 4.6.3 | No | No | No | Yes |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | Section 4.6- Impact 4.6.3 | No | No | No | Yes |
| 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? | The Initial Study determined that there would be no impact | No | No | No | N/A |
| 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 for people residing or working in the project area? | The Initial Study determined that there would be no impact | No | No | No | N/A |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | Section 4.6- Impact 4.6.2 | No | No | No | Yes |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | The Initial Study determined that there would be no impact | No | No | No | N/A |
| h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas, or where residences are intermixed with wildlands? | Section 4.6- Impact 4.6.1 | No | No | No | Yes |

Discussion: Based on these comments, the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

a-b) During construction and operational phases of the proposed project, common hazardous materials include gasoline and other motor vehicle fuels, propane, solvents, lubricating oils, welding gases, and acids and bases may be present onsite. If such hazardous materials were to be stored in reportable quantities as described below, a Hazardous Materials Release Response Plan (Business Plan) must be submitted to the County Environmental Health Department.

The proposed facility, once operating, must complete and submit Unified Program Consolidated Forms and must complete and submit Hazardous Materials Release Response Plan (Business Plan) to the County Environmental Health Department if handling or storing a hazardous material equal to or greater than the minimum reportable quantities. The minimum hazardous materials reportable quantities are:

- 55 gallons of liquid
- 500 pounds of a solid
- 200 cubic feet of compressed gas

The proposed project is expected to be a Conditionally Exempt Small Quantity Generator generating between 0 and 99 kilograms of hazardous waste per month. However, use of oils, lubricants, and diesel fuels in small quantities will be a part of overall operations at the site. Fuel storage will be over secondary containment and is expected to have no impact. The project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

While upset and accident conditions are always a possibility, the project site is not expected to pose any significant increase to this hazard than is already present at the existing facility. The site will be operated by Hat Creek Construction and Materials employees who are trained in proper spill cleanup and response procedures. Spill response equipment is already onsite. Fuel storage will be over secondary containment and is expected to have no impact.

- c) There is no existing or proposed school within one-quarter mile of the project site.
- d) The project site is not listed on any of the lists of hazardous materials sites provided by the California Department of Toxic Substances Control. There will be no impact.
- e) The project site is not located within an airport land use plan, nor within two miles of a public airport or public use airport. There will be no impact.
- f) There is an old private airstrip onsite. The airstrip is no longer in use. In the event that it were put back into use if the project does not include structures or the use of mobile equipment that would be located or operated in such a way as to pose a hazard to operation of the airstrip and/or would not be addressed by Mitigation Measure 4.6.2a adopted for the existing use permit.
- g) A review of the County of Shasta Multi-Hazard Functional Plan indicates that the proposed project would not impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, because of the remote location of the project which is located away from significant population centers, and because it would not block any public or private rights of way which could be necessary for emergency access. There will be no impact.
- h) The site is located in an area that is designated a "Very High" Fire Hazard Severity Zone. Hat Creek Construction and Materials, as part of their existing use permit, has already implemented mitigation measures to minimize this risk based on the analysis in the EIR adopted for the quarry project. The proposed project would introduce new fire hazards, including stockpiling of combustible material and production of flammable gas. The current fire marshal recommends applying fire service related conditions of approval to the project based on the current requirements of the Shasta County Fire Safety Standards and California Fire Code, including required limitations on storage pile dimensions and extension and improvement of the existing fire hydrant system to meet required standards. These conditions would be consistent with or more stringent than those described in EIR mitigation measure 4.6.1a.

In addition, the project would assist in reduction of forest fuel loading and result in increased forest regrowth through the removal of waste which may decrease wildfire risk for communities within 50 miles of the site such as Burney, Cassel, McCloud, and Fall River.

| VIII. HYDROLOGY AND WATER QUALITY: Would the project: | Environmental Issue Area Where Impact Was Analyzed in the Eastside Aggregates Project EIR. | Would Proposed Changes Involve New or Substantially More Severe Significant Impacts? | Would Any New Circumstances Involve New or Substantially More Severe Significant Impacts? | Is There Any Substantially Important New Information the Analysis of Which Shows New or Substantially More Severe Significant Impacts? | Would the Eastside Aggregates Project EIR Mitigation Measures Continue to Adequately Address/Resolve Impacts from the Project? |
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| a) Violate any water quality standards or waste discharge requirements? | Section 4.7 Impact 4.7.1 | No | No | No | Yes |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a new deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | Section 4.7 Impact 4.7.3 and 4.7.6 | No | No | No | N/A |
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | The Initial Study determined that there would be a less-than-significant impact | No | No | No | N/A |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite? | The Initial Study determined that there would be a less-than-significant impact | No | No | No | N/A |
| e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff? | The Initial Study determined that there would be a less-than-significant impact | No | No | No | N/A |
| f) Otherwise substantially degrade water quality? | Section 4.7- Impact 4.7.4 and 4.7.5 | No | No | No | N/A |
| g) Place housing within 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | The Initial Study determined that there would be no impact | No | No | No | N/A |

| VIII. HYDROLOGY AND WATER QUALITY: Would the project: | Environmental Issue Area Where Impact Was Analyzed in the Eastside Aggregates Project EIR. | Would Proposed Changes Involve New or Substantially More Severe Significant Impacts? | Would Any New Circumstances Involve New or Substantially More Severe Significant Impacts? | Is There Any Substantially Important New Information the Analysis of Which Shows New or Substantially More Severe Significant Impacts? | Would the Eastside Aggregates Project EIR Mitigation Measures Continue to Adequately Address/Resolve Impacts from the Project? |
|---|--|--|---|--|--|
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | Section 4.7- Impact 4.7.4 | No | No | No | Yes |
| i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam? | Section 4.7- Impact 4.7.4 | No | No | No | Yes |
| j) Inundation by seiche, tsunami, or mudflow? | The Initial Study determined that there would be no impact | No | No | No | N/A |

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

a) All storm water runoff from this site is contained in the existing on-site storm water/industrial wastewater retention basin. The gasification system will not generate wastewater and input water for the system is generated from the water in the feedstock. Small water storage tanks are a component of the gasification system to ensure sufficient water is available for the scrubber and for injection into the gasifier and to maintain temperature control. The water storage tanks will serve as a buffer for fluctuations in moisture content of the feedstock. Water removed from the gas stream in the scrubbing system is returned to the gasifier. As no wastewater is produced in the gasifier and the site is already equipped with an adequate storm water conveyance system, the project is anticipated to have no impact.

Grading and other construction activities would be subject to issuance of a Shasta County Grading Permit and, if resulting in the disturbance of more than one-acre, the issuance of a Construction General Permit by the California Regional Water Control Board. These requirements would address potential erosion and sedimentation concerns from run-off.

b) Existing wells onsite, which once served to keep the large mill ponds filled, have a measured capacity of 6,000 gallons per minute and will only be required to supply water during startup of the process. The gasification equipment is estimated to use up to 1,000 gallons of water during start-up and the system is estimated to average 4 full start-ups per year. Impacts on groundwater supplies will be less than significant.

c) The project will not alter the course of a stream or river, nor would it result in substantial erosion or siltation on or offsite. All storm water onsite will continue to flow to the onsite retention basins. There will be no impact.

d) Soils on this site are highly permeable and there is little to no standing water and no runoff from the site. The proposed project is not expected to change the soil conditions. The project will not contribute additional storm water runoff to the site. As the existing storm water drainage system onsite is adequate, the project will have no impact.

e) The project will be on the Hat Creek Construction and Materials site for which there is an existing storm water drainage system. No additional sources of runoff would occur and no impact is expected.

f) As stated above, the project is not expected to have a substantial impact on water quality.

g) No housing is proposed as a part of this project; therefore, there will be no impact.

h) The project would not place within a 100-year flood hazard area structures which would impede or redirect flood flows. Proposed structures on this site are not expected to impede or redirect flood flows and are not located within a floodplain. There will be

no impact.

- i) The project is not located near a river or stream, nor in the floodplain, nor downstream from a dam of any consequence. No impact is anticipated.
- j) The project site is not located near a large lake or the ocean. Therefore, there are no concerns regarding sieches or tsunamis and there are no formations near the site that are expected to cause a mudflow. There will be no impact.

| IX. LAND USE AND PLANNING - Would the project: | Environmental Issue Area Where Impact Was Analyzed in the Eastside Aggregates Project EIR. | Would Proposed Changes Involve New or Substantially More Severe Significant Impacts? | Would Any New Circumstances Involve New or Substantially More Severe Significant Impacts? | Is There Any Substantially Important New Information the Analysis of Which Shows New or Substantially More Severe Significant Impacts? | Would the Eastside Aggregates Project EIR Mitigation Measures Continue to Adequately Address/Resolve Impacts from the Project? |
|---|---|--|---|--|--|
| a) Physically divide an established community? | The Initial Study determined that there would a less-than-significant impact | No | No | No | N/A |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | The Initial Study determined that there would be no impact | No | No | No | N/A |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan? | The Initial Study determined that there would be no impact | No | No | No | N/A |

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

- a) The project is not located in any established community.
- b) The project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. The project is consistent with the Industrial (I) General Plan land use designation and the Industrial (M) zone district of the project site.
- c) There is no adopted Habitat Conservation Plan, Natural Community, Conservation Plan, or other approved local, regional, or State habitat conservation plans for the project site or project area.

| X. MINERAL RESOURCES – Would the project: | Environmental Issue Area Where Impact Was Analyzed in the Eastside Aggregates Project EIR. | Would Proposed Changes Involve New or Substantially More Severe Significant Impacts? | Would Any New Circumstances Involve New or Substantially More Severe Significant Impacts? | Is There Any Substantially Important New Information the Analysis of Which Shows New or Substantially More Severe Significant Impacts? | Would the Eastside Aggregates Project EIR Mitigation Measures Continue to Adequately Address/Resolve Impacts from 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? | The Initial Study determined that there would be no impact | No | No | No | N/A |
| 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? | The Initial Study determined that there would be no impact | No | No | No | N/A |

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

a-b) The project site is actively being mined. The project would be developed on an area outside the area approved for mining. The project would not result as significant in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State. The project would not 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.

| XI. NOISE – Would the project result in: | Environmental Issue Area Where Impact Was Analyzed in the Eastside Aggregates Project EIR. | Would Proposed Changes Involve New or Substantially More Severe Significant Impacts? | Would Any New Circumstances Involve New or Substantially More Severe Significant Impacts? | Is There Any Substantially Important New Information the Analysis of Which Shows New or Substantially More Severe Significant Impacts? | Would the Eastside Aggregates Project EIR Mitigation Measures Continue to Adequately Address/Resolve Impacts from the Project? |
|---|--|--|---|--|--|
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | Section 4.8- Impact 4.8.1 through 4.8.8 | No | No | No | Yes |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels | Section 4.8- Impact 4.8.8 | No | No | No | Yes |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | Section 4.8 Impact 4.8.1 through 4.8.8 | No | No | No | Yes |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | Section 4.8 Impact 4.8.1 through 4.8.8 | No | No | No | Yes |

| XI. NOISE - Would the project result in: | Environmental Issue Area Where Impact Was Analyzed in the Eastside Aggregates Project EIR. | Would Proposed Changes Involve New or Substantially More Severe Significant Impacts? | Would Any New Circumstances Involve New or Substantially More Severe Significant Impacts? | Is There Any Substantially Important New Information the Analysis of Which Shows New or Substantially More Severe Significant Impacts? | Would the Eastside Aggregates Project EIR Mitigation Measures Continue to Adequately Address/Resolve Impacts from the Project? |
|---|--|--|---|--|--|
| 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 expose people residing or working in the project area to excessive noise levels? | The Initial Study determined that there would be a less-than-significant | No | No | No | N/A |
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | The Initial Study determined that there would be no impact | No | No | No | N/A |

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, and the attached Appendix B Noise Analysis Background, the following findings can be made:

- a) The Placer County Cabin Creek EIR, prepared for similar 2 MW bio-gasification facility, predicted noise levels to drop to 60 dB 250 feet from the source. The proposed facility would be able to produce more power, but this would not require a factoring up of those noise levels described in the Cabin Creek EIR for the purpose of evaluating noise impacts from the proposed project significantly, despite the addition of two additional engines needed to achieve the proposed 3MW, because, unlike air emissions, noise levels generated by mobile and stationary equipment used for the project would not increase output because proportionally with the increase in power output.

The site was previously occupied by a lumber mill which generated noise when it was operating. The site currently operates as an aggregate quarry, asphalt batch plant and concrete batch plant which generate noise. Noise levels at the project site were estimated during the 2000 EIR process to be in excess of, on average, 70 dBA at one hundred feet from the facility. Noise levels from the project would not add to this noise level because noise levels project source would be below or not significantly above this level at one-hundred feet from the proposed bio-gasification facility.

The Shasta County General Plan Section 5.5 "Noise" indicates that the residences on Clark Creek Road already exist in a relatively noisy environment. The trailer park and the residences on Clark Creek Road between SR 89 and Black Ranch Road are within 720 feet of the state highway and experience a noise level in excess of 60 dB Leq. As these receptors are over 0.5 miles from the site, it is not expected that the project will contribute to any excessive noise.

- b) During the construction phase of the project, some minor groundbourne vibrations can be expected. This will be temporary and short term. Truck traffic in and out of the project facility for the duration of the project can lead to minimal groundborne vibrations; however, these are not expected to be excessive or in any significant amount of duration. Overall impact is expected to be less than significant.
- c) The existing ambient noise environment in the immediate project vicinity is defined primarily by traffic on SR 89 and by existing industrial activities on the site. Noise-sensitive receptors in the immediate project vicinity consist of residences located about 0.56 miles northwest of the project site.

The Placer County Cabin Creek EIR indicated that the highest decibel (dB) reading anticipated was 74dB at 50 feet from the center of the project. At 250 feet from the project, the reading dropped to 60 dB. These highest readings are lower than the average noise levels predicted for the Hat Creek Construction and Materials operation existing at the site. Therefore, the proposed project is not expected to contribute to any noise levels above what is already at the site and is expected to have a less than significant effect.

- d) The site was previously occupied by a lumber mill which generated noise when it was operating. The site currently operates as an aggregate quarry, asphalt batch plant, and concrete batch plant which generate noise. The Shasta County General Plan Section 5.5 "Noise" indicates that the residences on Clark Creek Road already exist in a relatively noisy environment. The trailer park and the

residences on Clark Creek Road between SR 89 and Black Ranch Road are within 720 feet of the state highway and thus experience a high noise level.

The Placer County Cabin Creek EIR estimated construction-related noise levels to average between 85 dB Leq and 89 dB Lmax at 50 feet and noise levels at 775 feet to drop to 55 dB Leq and 57 dB Lmax. The addition of the project is not expected to add any significant amount of noise to the current baseline.

- e) There is no impact as the project site is not located within two miles of a public airport or public use airport.
- f) The project site is adjacent to a private airstrip which is no longer currently in use. It had been used seasonally in the past for agricultural uses including crop dusting. As this use was intermittent, it is not expected to have a significant impact if it were to be put back into use.

| XII. POPULATION AND HOUSING - Would the project: | Environmental Issue Area Where Impact Was Analyzed in the Eastside Aggregates Project EIR. | Would Proposed Changes Involve New or Substantially More Severe Significant Impacts? | Would Any New Circumstances Involve New or Substantially More Severe Significant Impacts? | Is There Any Substantially Important New Information the Analysis of Which Shows New or Substantially More Severe Significant Impacts? | Would the Eastside Aggregates Project EIR Mitigation Measures Continue to Adequately Address/Resolve Impacts from the Project? |
|---|--|--|---|--|--|
| a) Induce substantial 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)? | The Initial Study determined that there would be less-than-significant | No | No | No | N/A |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | The Initial Study determined that there would be no impact | No | No | No | N/A |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | The Initial Study determined that there would be no impact | No | No | No | N/A |

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

- a) The proposed project would add an estimated two employees on-site. The population of the community of Burney is approximately 3,400 people. There are an additional approximately 4,700 people in the surrounding area. Comparing the number of additional employees with the local population, the project is not expected to result in a substantial population growth. No new roads or infrastructure are proposed and no impact is expected.
- b) The project does not include destruction of any existing housing.
- c) The project would not displace any number of people.

| XIII. PUBLIC SERVICES: Would the project 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 impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: | Environmental Issue Area Where Impact Was Analyzed in the Eastside Aggregates Project EIR. | Would Proposed Changes Involve New or Substantially More Severe Significant Impacts? | Would Any New Circumstances Involve New or Substantially More Severe Significant Impacts? | Is There Any Substantially Important New Information the Analysis of Which Shows New or Substantially More Severe Significant Impacts? | Would the Eastside Aggregates Project EIR Mitigation Measures Continue to Adequately Address/Resolve Impacts from the Project? |
|--|---|--|---|--|--|
| Fire Protection? | The Initial Study determined that there would be no impact | No | No | No | N/A |
| Police Protection? | The Initial Study determined that there would be no impact | No | No | No | N/A |
| Schools? | The Initial Study determined that there would be no impact | No | No | No | N/A |
| Parks? | The Initial Study determined that there would be no impact | No | No | No | N/A |
| Other public facilities? | The Initial Study determined that there would be no impact | No | No | No | N/A |

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

The project would not 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 impacts, in order to maintain acceptable service ratios, response times or other performance objectives for:

Fire Protection:

Fire protection will be provided onsite. The project may provide an overall net benefit in the reduction of forest fuels and wildfire risk.

Police Protection:

The County has a total of 147 sworn and 119 non-sworn County peace officers (Sheriff's deputies) for the County population of 67,274 (California, Department of Finance 2015) persons in the unincorporated area of the County. That is a ratio of one officer per 267 persons. At least one night-watchman resides on the project site

Schools:

The resultant development from the project will be required to pay the amount allowable per square foot of construction to mitigate school impacts.

Parks:

The County does not have a neighborhood parks system.

Other public facilities:

None

| XIV. RECREATION: | Environmental Issue Area Where Impact Was Analyzed in the Eastside Aggregates Project EIR. | Would Proposed Changes Involve New or Substantially More Severe Significant Impacts? | Would Any New Circumstances Involve New or Substantially More Severe Significant Impacts? | Is There Any Substantially Important New Information the Analysis of Which Shows New or Substantially More Severe Significant Impacts? | Would the Eastside Aggregates Project EIR Mitigation Measures Continue to Adequately Address/Resolve Impacts from the Project? |
|--|--|--|---|--|--|
| a) Would the project 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? | Section 4.9- Impact 4.9.1 and 4.9.2 | No | No | No | N/A |
| 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? | The Initial Study determined that there would be no impact | No | No | No | N/A |

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

- a) The County does not have a neighborhood or regional parks system or other recreational facilities. The project would not 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. The 1999 EIR for UP99-017 also considered the potential impact noise and air pollution of the proposed industrial uses on recreation resources in the vicinity. The potential impacts on recreation resources was determined to be less than significant. As noted in the Air Quality and Noise sections above the proposed project would not resulting in new or significantly increase in intensity of significant air quality or noise impacts.
- b) The project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. School facilities are typically used for sports and recreation. The City of Redding also has a number of recreational facilities. In addition, there are tens of thousands of acres of rivers, lakes, forests, and other public land available for recreation in Lassen National Park, the Shasta and Whiskeytown National Recreation Areas, the National Forests, and other public land administered by Bureau of Land Management.

| XV. TRANSPORTATION/TRAFFIC: Would the project: | Environmental Issue Area Where Impact Was Analyzed in the Eastside Aggregates Project EIR. | Would Proposed Changes Involve New or Substantially More Severe Significant Impacts? | Would Any New Circumstances Involve New or Substantially More Severe Significant Impacts? | Is There Any Substantially Important New Information the Analysis of Which Shows New or Substantially More Severe Significant Impacts? | Would the Eastside Aggregates Project EIR Mitigation Measures Continue to Adequately Address/Resolve Impacts from the Project? |
|--|--|--|---|--|--|
| a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)? | Section 4.1.4 | No | No | No | Yes |
| b) Exceed, either individually or cumulatively, a level of service standard established by the County congestion | The Initial Study | No | No | No | N/A |

| XV. TRANSPORTATION/TRAFFIC: Would the project: | Environmental Issue Area Where Impact Was Analyzed in the Eastside Aggregates Project EIR. | Would Proposed Changes Involve New or Substantially More Severe Significant Impacts? | Would Any New Circumstances Involve New or Substantially More Severe Significant Impacts? | Is There Any Substantially Important New Information the Analysis of Which Shows New or Substantially More Severe Significant Impacts? | Would the Eastside Aggregates Project EIR Mitigation Measures Continue to Adequately Address/Resolve Impacts from the Project? |
|---|--|--|---|--|--|
| management agency for designated roads or highway? | determined that there would be less-than-significant | | | | |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | The Initial Study determined that there would be no impact | No | No | No | N/A |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | Section 4.1.4 | No | No | No | Yes |
| e) Result in inadequate emergency access? | The Initial Study determined that there would be no impact | No | No | No | N/A |
| f) Result in inadequate parking capacity? | The Initial Study determined that there would be less-than-significant impact | No | No | No | N/A |
| g) Conflict with adopted policies, plans or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)? | The Initial Study determined that there would be no impact | No | No | No | N/A |

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

- a) In 1999, a right-turn lane was added on Highway 89 at the entrance to the project site to mitigate for impacts of traffic from uses approved by Use Permit 99-05 and 99-017. The turn lane was intended to ensure that truck traffic from the uses would not create significant traffic congestion when making a right hand turn from the Highway 89 into the project site. The Department is not aware of any complaints regarding traffic congestion or traffic accidents attributable to project traffic in the vicinity of the entrance to the facility.

Use Permit 99-017 established truck traffic limit of 709 truck-loads/day for the operations associated with the quarry. Historically quarry operations have generated an approximate average of 500 truck-loads/day and there are no indications that the 709 truck-loads/day limit has been exceeded. The proposed project is expected to add a maximum of ten and an average of six truck-loads of feedstock per day. These are within the current traffic limits established for quarry operations. The project will add less than 10 truck and 4 employee trips per day. This additional traffic will not be a significant increase from current traffic at the site or present potentially significant traffic

safety concerns.

- b) According to Caltrans monitoring data, SR 89 sees an average of 1,750 to 1,950 vehicles per day. Increased traffic due to the proposed project is small and not expected to have any significant impact.
- c) The project would result in the construction of single-family residences or other improvements which would for safety reasons not effect air traffic patterns. The project would not result in a change in air traffic patterns.
- d) See XV, a) above.
- e) Emergency access to the project is provided by the following roadways: State Highway 299E. There are two access points to the subject property which could be used for emergency access. The proposed project would not located such that it would obstruct or otherwise effect either access point. The project has been reviewed by the Shasta County Fire Department which has determined that there is adequate emergency access. There will be no impact.
- f) There is more than adequate parking available for on-site parking. The project would not result in inadequate parking capacity.
- g) The proposed project does not affect, in any way, adopted policies, plans or programs supporting alternative transportation.

| VI. UTILITIES AND SERVICE SYSTEMS: Would the project: | Environmental Issue Area Where Impact Was Analyzed in the Eastside Aggregates Project EIR. | Would Proposed Changes Involve New or Substantially More Severe Significant Impacts? | Would Any New Circumstances Involve New or Substantially More Severe Significant Impacts? | Is There Any Substantially Important New Information the Analysis of Which Shows New or Substantially More Severe Significant Impacts? | Would the Eastside Aggregates Project EIR Mitigation Measures Continue to Adequately Address/Resolve Impacts from the Project? |
|---|--|--|---|--|--|
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | Section 4.1.4 and Section 4.7-Impact 4.7.1 | No | No | No | Yes |
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | The Initial Study determined that there would be less-than-significant impact | No | No | No | N/A |
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | The Initial Study determined that there would be no impact | No | No | No | N/A |
| d) Have sufficient water supplies available to serve the project which serves or may serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | The Initial Study determined that there would be no impact | No | No | No | N/A |
| e) 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? | The Initial Study determined that there would be no impact | No | No | No | N/A |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the | The Initial Study | No | No | No | N/A |

| <u>VI. UTILITIES AND SERVICE SYSTEMS:</u> Would the project: | Environmental Issue Area Where Impact Was Analyzed in the Eastside Aggregates Project EIR. | Would Proposed Changes Involve New or Substantially More Severe Significant Impacts? | Would Any New Circumstances Involve New or Substantially More Severe Significant Impacts? | Is There Any Substantially Important New Information the Analysis of Which Shows New or Substantially More Severe Significant Impacts? | Would the Eastside Aggregates Project EIR Mitigation Measures Continue to Adequately Address/Resolve Impacts from the Project? |
|---|--|--|---|--|--|
| project's solid waste disposal needs? | determined that there would be no impact | | | | |
| g) Comply with Federal, State, and local statutes and regulations related to solid waste? | The Initial Study determined that there would be no impact | No | No | No | N/A |

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

- a) The proposed project is not expected to release any waste water; therefore, no impact is expected.
- b) The project would not require the construction of new water or wastewater treatment facilities as no wastewater is expected to be generated. No impact is expected.
- c) The project would not require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. All storm water from the project site is already contained onsite through an existing storm water drainage system. Therefore, any changes due to the project will have no impact.
- d) The project would have sufficient water supplies available to serve the project which serves or may serve the project from existing entitlements and resources, nor are new or expanded entitlements needed. The majority of water required for the project will be supplied by the moisture in the feedstock. Onsite wells have the capacity to pump 6,000 gpm. The wells will provide the additional water necessary during periods of startup. This amount of water is expected to be small and intermittent and have a less than significant effect on onsite water supply.
- e) There will be no impact as no wastewater treatment provider currently serves or is planned to serve the project.
- f-g) The proposed project is not expected to generate any significant amount of solid waste from daily operations. The only direct waste stream generated during the biogasification process is the biochar which will be stockpiled and sold as a soil amendment; therefore, there will be no impact. The Burney Solid Waste Transfer Station and West Central Landfill have sufficient capacity to accommodate the waste that is incidental to daily operation of the facility in compliance with Federal, State, and local statutes and regulations related to solid waste.

| <u>XVII. MANDATORY FINDINGS OF SIGNIFICANCE:</u> | Environmental Issue Area Where Impact Was Analyzed in the Eastside Aggregates Project EIR. | Would Proposed Changes Involve New or Substantially More Severe Significant Impacts? | Would Any New Circumstances Involve New or Substantially More Severe Significant Impacts? | Is There Any Substantially Important New Information the Analysis of Which Shows New or Substantially More Severe Significant Impacts? | Would the Eastside Aggregates Project EIR Mitigation Measures Continue to Adequately Address/Resolve Impacts from the Project? |
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| <u>XVII. MANDATORY FINDINGS OF SIGNIFICANCE:</u> | Environmental Issue Area Where Impact Was Analyzed in the Eastside Aggregates Project EIR. | Would Proposed Changes Involve New or Substantially More Severe Significant Impacts? | Would Any New Circumstances Involve New or Substantially More Severe Significant Impacts? | Is There Any Substantially Important New Information the Analysis of Which Shows New or Substantially More Severe Significant Impacts? | Would the Eastside Aggregates Project EIR Mitigation Measures Continue to Adequately Address/Resolve Impacts from the Project? |
|--|--|--|---|--|--|
| a) Does the project have the potential to 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 the self-sustaining levels, threaten to eliminate a plant or animal community, 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? | Section 4.4 | No | No | No | Yes |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection the effects of past projects, the effects of other current projects, and the effects of probable future projects)? | Section 4.2 through Section 4.9 | No | No | No | Yes |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | Section 4.2 through Section 4.9 | No | No | No | Yes |

Discussion:

- a) Based on the discussion and findings in Section IV. Biological Resources, the evidence supports a finding that the project would not have the potential to 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 the self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. Based on the discussion and findings in Section V. Cultural Resources, the evidence supports finding that the project would not have the potential to eliminate important examples of the major periods of California history or prehistory.
- b) Based on the discussion and findings in all Sections above, the evidence supports a finding that the project would not have impacts that are cumulatively considerable.
- c) Based on the discussion and findings in all Sections above, the evidence supports a finding that the project would not have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly.

Conclusion/Summary: Based on a review by the Planning Division and other agency staff, information provided by the applicant, and existing information available to the Planning Division, including the certified Eastside Aggregates Power Project Environmental Impact Report (EIR) (State Clearinghouse # 2000062079) the project would not require the preparation of a new Environmental Impact Report, or Subsequent EIR.

EVALUATION AND ADDENDUM COMMENTS

PROJECT NUMBER USE PERMIT 99-017A1 – TLT ENTERPRISES, LLC

GENERAL COMMENTS:

Special Studies: The following project-specific studies have been completed for the proposal and will be considered as part of the record of decision for the previously prepared and certified Eastside Aggregates Project EIR. These studies are attached for consideration.

None

Agency Referrals: Prior to an environmental recommendation, referrals for this project were sent to agencies thought to have responsible agency or reviewing agency authority. The responses to those referrals (attached), where appropriate, have been incorporated into this document and will be considered as part of the record of decision for the previously prepared and certified Eastside Aggregates Project EIR. Copies of all referral comments may be reviewed through the Shasta County Planning Division. To date, referral comments have been received from the following State agencies or any other agencies which have identified CEQA concerns:

1. California Regional Water Quality Control Board
2. Northeast Information Center at Chico State University

Conclusion/Summary: Based on a field review by the Planning Division and other agency staff, early consultation review comments from other agencies, information provided by the applicant, and existing information available to the Planning Division, the project is not anticipated to result in any conditions described in Section 15162 of the CEQA Guidelines are in evidence.

SOURCES OF DOCUMENTATION FOR EVALUATION OF NEED FOR SUPPLEMENTAL ENVIRONMENTAL REVIEW

All headings of this source document correspond to the headings of the initial study checklist. In addition to the resources listed below, initial study analysis may also be based on field observations by the staff person responsible for completing the initial study. Most resource materials are on file in the office of the Shasta County Department of Resource Management, Planning Division, 1855 Placer Street, Suite 103, Redding, CA 96001, Phone: (530) 225-5532.

EASTSIDE AGGREGATES PROJECT ENVIRONMENTAL IMPACT REPORT (STATE CLEARINGHOUSE #2000062079)

GENERAL PLAN AND ZONING

1. Shasta County General Plan and land use designation maps.
2. Applicable community plans, airport plans and specific plans.
3. Shasta County Zoning Ordinance (Shasta County Code Title 17) and zone district maps.

ENVIRONMENTAL FACTORS

I. AESTHETICS

1. Shasta County General Plan, Section 6.8 Scenic Highways, and Section 7.6 Design Review.
2. Zoning Standards per Shasta County Code, Title 17.

II. AGRICULTURAL RESOURCES

1. Shasta County General Plan, Section 6.1 Agricultural Lands.
2. Soil Survey of Shasta County Area, California, published by U.S. Department of Agriculture, Soil Conservation Service and Forest Service, August 1974.

III. AIR QUALITY

1. Shasta County General Plan Section, 6.5 Air Quality.
2. Northern Sacramento Valley Air Basin, 2006 Air Quality Attainment Plan.
3. Records of, or consultation with, the Shasta County Department of Resource Management, Air Quality Management District.
4. Cabin Creek Biomass Facility Project Draft EIR and Appendices (SCH#2011122032).
5. North Fork Bioenergy Facility CEQA Initial Study submitted to the San Joaquin Valley Air Pollution Control District

IV. BIOLOGICAL RESOURCES

1. Shasta County General Plan, Section 6.2 Timberlands, and Section 6.7 Fish and Wildlife Habitat.
2. Designated Endangered, Threatened, or Rare Plants and Candidates with Official Listing Dates, published by the California Department of Fish and Game.
3. Natural Diversity Data Base Records of the California Department of Fish and Game.
4. Federal Listing of Rare and Endangered Species.
5. Shasta County General Plan, Section 6.7 Fish and Wildlife Habitat.
6. State and Federal List of Endangered and Threatened Animals of California, published by the California Department of Fish and Game.
7. Natural Diversity Data Base Records of the California Department of Fish and Game.

V. CULTURAL RESOURCES

1. Shasta County General Plan, Section 6.10 Heritage Resources.
2. Records of, or consultation with, the following:
 - a. The Northeast Information Center of the California Historical Resources Information System, Department of Anthropology, California State University, Chico.
 - b. State Office of Historic Preservation.
 - c. Local Native American representatives.
 - d. Shasta Historical Society.

VI. GEOLOGY AND SOILS

1. Shasta County General Plan, Section 5.1 Seismic and Geologic Hazards, Section 6.1 Agricultural Lands, and Section 6.3 Minerals.
2. County of Shasta, Erosion and Sediment Control Standards, Design Manual
3. Soil Survey of Shasta County Area, California, published by U.S. Department of Agriculture, Soil Conservation Service and Forest Service, August 1974.
4. Alquist - Priolo, Earthquake Fault Zoning Maps.

VII. HAZARDS AND HAZARDOUS MATERIALS

1. Shasta County General Plan, Section 5.4 Fire Safety and Sheriff Protection, and Section 5.6 Hazardous Materials.
2. County of Shasta Multi-Hazard Functional Plan

3. Records of, or consultation with, the following:
 - a. Shasta County Department of Resource Management, Environmental Health Division.
 - b. Shasta County Fire Prevention Officer.
 - c. Shasta County Sheriff's Department, Office of Emergency Services.
 - d. Shasta County Department of Public Works.
 - e. California Environmental Protection Agency, California Regional Water Quality Control Board, Central Valley Region.

VIII. HYDROLOGY AND WATER QUALITY

1. Shasta County General Plan, Section 5.2 Flood Protection, Section 5.3 Dam Failure Inundation, and Section 6.6 Water Resources and Water Quality.
2. Flood Boundary and Floodway Maps and Flood Insurance Rate Maps for Shasta County prepared by the Federal Emergency Management Agency, as revised to date.
3. Records of, or consultation with, the Shasta County Department of Public Works acting as the Flood Control Agency and Community Water Systems manager.

IX. LAND USE AND PLANNING

1. Shasta County General Plan land use designation maps and zone district maps.
2. Shasta County Assessor's Office land use data.

X. MINERAL RESOURCES

1. Shasta County General Plan Section 6.3 Minerals.

XI. NOISE

1. Shasta County General Plan, Section 5.5 Noise and Technical Appendix B.
2. Cabin Creek Biomass Facility Project Draft EIR and Appendices (SCH#2011122032).

XII. POPULATION AND HOUSING

1. Shasta County General Plan, Section 7.1 Community Organization and Development Patterns.
2. Census data from U.S. Department of Commerce, Bureau of the Census.
3. Census data from the California Department of Finance.
4. Shasta County General Plan, Section 7.3 Housing Element.
5. Shasta County Department of Housing and Community Action Programs.

XIII. PUBLIC SERVICES

1. Shasta County General Plan, Section 7.5 Public Facilities.
2. Records of, or consultation with, the following:
 - a. Shasta County Fire Prevention Officer.
 - b. Shasta County Sheriff's Department.
 - c. Shasta County Office of Education.
 - d. Shasta County Department of Public Works.

XIV. RECREATION

1. Shasta County General Plan, Section 6.9 Open Space and Recreation.

XV. TRANSPORTATION/TRAFFIC

1. Shasta County General Plan, Section 7.4 Circulation.
2. Records of, or consultation with, the following:
 - a. Shasta County Department of Public Works.
 - b. Shasta County Regional Transportation Planning Agency.
 - c. Shasta County Congestion Management Plan/Transit Development Plan.
3. Institute of Transportation Engineers, Trip Generation Rates.

XVI. UTILITIES AND SERVICE SYSTEMS

1. Records of, or consultation with, the following:
 - a. Pacific Gas and Electric Company.
 - b. Pacific Power and Light Company.
 - c. Pacific Bell Telephone Company.
 - d. Citizens Utilities Company.
 - e. T.C.I.
 - f. Marks Cablevision.
 - g. Shasta County Department of Resource Management, Environmental Health Division.
 - h. Shasta County Department of Public Works.

APPENDIX A

AIR QUALITY AND GREENHOUSE GAS EMISSIONS ANALYSIS BACKGROUND

Greenhouse Gas Emissions

Regulatory Setting - Federal

Mandatory Greenhouse Gas Reporting Rule: The EPA issued a final rule for mandatory reporting of greenhouse gas (GHG) emissions from large emission sources in the United States on September 22, 2009. This rule requires accurate annual reporting of GHG emissions data from facilities that emit 25,000 metric tons or more of CO₂ per year. This data is publicly available data and allows reporters to track emissions, compare them to similar facilities, and aid in identifying cost-effective opportunities to reduce emissions in the future. For a majority of facilities, the reporting is at the facility level. Approximately 85 percent of total U.S. GHG emissions, from approximately 10,000 facilities, are subject to this rule.

Energy Policy Act of 2005: The Energy Policy Act of 2005 was signed into law on August 8, 2005. Generally, the Act provides for renewed and expanded tax credits for electricity generated by qualified energy sources; provides bond financing, tax incentives, grants, and loan guarantees for a clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

The Clean Power Plan of 2015: The EPA has adopted the “Clean Power Plan” which sets the goal of 30 percent reduction in CO₂ by 2030 based on 2005 levels. It also spurs reductions in criteria pollutants and air toxics and instigates renewable energy projects. It is not expected that this plan or rules associated with it will effect California industry because our state requirements are more stringent than those described in this Plan.

Regulatory Setting – State

The Governor’s Emergency Proclamation of October 30, 2015: Governor Brown announced on October 30, 2015, that the significant number of dead and dying trees due to drought and bark beetle infestation have left the State’s forests in such a desperate state that immediate and decisive actions are needed at a regulatory level to deal with the crisis. The construction of new biomass facilities under the BioMat program, such as this one, are specifically encouraged and many state agencies are tasked to support such projects to the extent possible.

Bioenergy Action Plan – Executive Order #S-06-06: The Bioenergy Action Plan establishes targets for the use and production of biofuels and biopower and directs state agencies to advance biomass programs in California. The Order establishes targets to increase the production and use of bioenergy. These targets include: produce a minimum of 20 percent of its biofuels within California by 2010, 40 percent by 2020, and 75 percent by 2050.

California Executive Orders S-3-05 and Assembly Bill 32: Governor Arnold Schwarzenegger signed Executive Order S-3-05 on June 1, 2005. The goal of this Order is to reduce California’s GHG emissions to 2000 levels by 2010, 1990 levels by 2020, and 80 percent below 1990 levels by 2050. This goal was reinforced by the passage of Assembly Bill 32 (AB32), the Global Warming Solutions Act of 2006. AB 32 sets the same GHG emissions reduction goals but mandates that CARB create a plan using market mechanisms to implement rules to achieve “real, quantifiable, cost-effective reductions of greenhouse gases.”

In 2008, CARB adopted the Climate Change Scoping Plan (Scoping Plan) which details CARB’s plans to achieve the GHG reductions required by AB 32. The Scoping Plan calls for the largest reductions in GHG emissions to be achieved by implementing improved emissions standards for light-duty vehicles, the Low-Carbon Fuel Standard, energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems, and a renewable portfolio standard for electricity production.

The First Update to the Scoping Plan was approved by the Board on May 22, 2014, and builds upon the initial Scoping Plan with new strategies and recommendations. The First Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The First Update defines ARB’s climate change priorities for the next five years and also sets the groundwork to reach long-term goals set forth in Executive Orders S-3-05 and B-16-2012. The Update highlights California’s progress toward meeting the “near-term” 2020 GHG emission reduction goals defined in the initial Scoping Plan. It also evaluates how to align the State’s “longer-term” GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use.

Senate Bill 1368: SB 1368 requires the California Energy Commission (CEC) and the CPUC to set a global warming emissions standard for electricity used in California regardless of whether the electricity is generated in-state or purchased from plants in other states. The standard applies to any new long-term financial contracts for baseload electricity, and applies both to investor-owned utilities and

municipal utilities. The standard for baseload generation owned by, or under long-term contract to, publicly owned utilities, is an emissions performance standard (EPS) of 1,100 lbs CO₂ per megawatt-hour (MWh). However, the CPUC has determined that biomass generation of electricity is EPS compliant because alternative means of disposing biomass, such as open-air burning and landfill deposition, have the potential to generate greater concentrations of GHG in the atmosphere, including methane.

Senate Bills 1078 and 107 and Executive Order S-14-08: SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. In November 2008, Governor Schwarzenegger signed Executive Order S-14-08, which expands the state's Renewable Energy Standard to 33 percent renewable power by 2020.

Senate Bill 350: This bill would require that the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased to 50 percent by December 31, 2030, as provided. The bill also makes other revisions to the Renewable Portfolio Standard (RPS) Program and to certain other requirements on public utilities and publicly owned electric utilities. This bill would require the State Energy Resources Conservation and Development Commission to establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas final end uses of retail customers by January 1, 2030. The bill would require the PUC to establish efficiency targets for electrical and gas corporations consistent with this goal. The bill would require local publicly owned electric utilities to establish annual targets for energy efficiency savings and demand reduction consistent with this goal.

SB 1122 The CA Public Utilities Commission BioMat Program: This bill was passed based on the recognition that California is missing out on the carbon reduction benefits of using organic waste for conversion to energy and, in this case, electricity. The bill directs electrical corporations subject to the RPS Program described above to collectively procure at least 250 megawatts of electricity from developers of bioenergy projects that commence operation on or after June 1, 2013. The bill requires the commission to allocate those 250 megawatts to electrical corporations from specified categories of bioenergy project types, with 50 megawatts specifically allocated to forest biomass projects such as the project described. The program developed for this procurement requirement commenced in February of 2015. It is the intent of this project to procure a Power Purchase Agreement under this program.

SB 605 Short-Lived Climate Pollutants: This Bill passed in 2014 requires the CARB to complete an inventory of sources and emissions of short-lived climate pollutants in the state based on available data, identify research needs to address any data gaps, identify existing and potential new control measures to reduce emissions, and prioritize the development of new measures for short-lived climate pollutants that offer co-benefits by improving water quality or reducing other air pollutants that impact community health and benefit disadvantaged communities, as identified pursuant to Section 39711. The Board is also required to coordinate with other state agencies and districts to develop measures identified as part of the comprehensive strategy. Black carbon is one of the significant short-lived climate pollutants that is considered within this Plan. Black carbon is produced in large amounts when wildfire occur. This project's processing of wood that would have otherwise been burned relates to and supports the Plan concepts developed by CARB.

Greenhouse Gas Cap and Trade Program: California's GHG cap and trade program is the central element of AB 32 and covers major sources of GHG emissions in the state such as refineries, power plants, industrial facilities, and transportation fuels. The regulation includes a GHG cap that will decline over time. CARB distributes allowances, which are tradable permits, equal to the emission allowed under the cap. The final cap and trade regulations were adopted in 2011.

The regulation sets a statewide limit on sources and establishes a financial incentive to drive long-term investment in cleaner fuels and more efficient uses of energy. Companies are not given a specific limit on their GHG emissions but must supply a sufficient number of allowances (each equivalent to one ton of CO₂) to cover their annual emissions. As the cap declines each year, the total number of allowances in the state drops which requires companies to find the most cost-effective approach to reducing their emissions.

Those sources that need additional allowances to cover their emissions can purchase them at quarterly auctions by CARB, or buy them on the market from sources that have excess allowances.

The final regulations for the cap and trade program are codified in Subchapter 10 Climate Change, Article 5, Sections 95800 to 96023, Title 17, California Code of Regulations. Section 95802(a)(31) contains a definition of "biomass" as defined in the cap and trade regulations: "Biomass means non-fossilized and biodegradable organic material originating from plants, animals, and microorganisms, including products, by-products, residues, and waste from agriculture, forestry, and related industries as well as the non-fossilized and biodegradable organic fractions of industrial and municipal wastes, including gases and liquids recovered from the decomposition of non-fossilized and biodegradable organic material. For the purpose of this article, biomass includes both California Renewable Portfolio Standard (RPS) eligible and non-eligible biomass as defined by the California Energy Commission."

Section 95852.2 identifies emissions without a compliance obligation under the cap and trade program. As stated in Section 95852.2:

Emissions from the following source categories and from the combustion of the following fuel types count toward applicable reporting

thresholds, as applicable in MRR (Mandatory Reporting Regulation), but do not count toward a covered entity's compliance obligation set forth in this article unless those emissions are reported as non-exempt biomass-derived CO₂ under MRR. Emissions without a compliance obligation include:

- (a) CO₂ emissions from combustion of the following biomass-derived fuels:
 - (1) The biogenic fraction of solid waste materials as reported under MRR;
 - (2) Waste pallets, crates, dunnage, manufacturing and construction wood wastes, tree trimmings, mill residues, and range land maintenance residues;
 - (3) All agricultural crops or waste;
 - (4) Wood and wood wastes identified to follow all of the following practices:
 - (A) Harvested pursuant to an approved timber management plan prepared in accordance with the Z'berg-Nejedly Forest Practice Act of 1973 or other locally or nationally approved plan; and
 - (B) Harvested for the purpose of forest fire fuel reduction or forest stand improvement

The proposed project would utilize fuel that fully meets the definition of biomass and, as such, per the requirements of Section 95852.2, the proposed project would be required to report GHG emissions under the MRR; however, GHG emissions from the project would not count towards the compliance obligations under the cap and trade program. In other words, the GHG emissions from the combustion of biomass fuels for electricity generation are not required to be offset or reduced under the cap and trade program.

Climate Change Thresholds of Significance under CEQA

As described previously, the State Legislature and the global scientific community have found that global climate change poses significant adverse effects to the environment. Per Appendix G of the CEQA Guidelines, climate change-related impacts are considered significant if implementation of the proposed project under consideration would do any of the following:

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Few public agencies in California have adopted GHG thresholds of significance for CEQA, and no GHG thresholds have been developed specifically for facilities that generate electricity. Neither Shasta County Air Quality Management District nor Shasta County has developed GHG CEQA thresholds.

As reference, for the most recent similar (but significantly larger) project, the Sierra Pacific Industries Cogeneration Project (SCH#2009072011), the Shasta County Air District and County relied on the Inclusion Thresholds for Covered Entities, as described in Section 95812 of the Cap and Trade regulations adopted by CARB in 2011 (Title 17, California Code of Regulations). As described in Section 95812(c)(2), the applicability threshold for an electricity-generating facility is based on the annual emissions from which the electricity originated.

CARB's 25,000 metric ton/year threshold is a reporting threshold for the cap and trade program, and was not specifically established as a CEQA threshold for GHGs. However, in the report titled: CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act, the California Air Pollution Control Officers Association (CAPCOA) identifies the 25,000 metric ton threshold, as used by CARB for their reporting threshold, as a potential and appropriate non-zero GHG threshold for use in a CEQA document (see pages 44-45 of the above-referenced 2008 report).

Additionally, the U.S. EPA regulations for reporting of GHG emissions set a 25,000 metric ton threshold for large emission sources and the European Union has provided for "small installations" with emissions under 25,000 metric tons to be exempted from its Emissions Trading Scheme; notably, biomass emissions are excluded from this calculation.

In summary, a 25,000 metric ton threshold has been determined in several state, federal, and international rulemaking processes to represent a significant level of emissions with respect to cumulative contributions to global climate change. Given the research and resources that went into the development of the GHG Mandatory Reporting Rule and cap and trade programs adopted by CARB, the U.S. EPA GHG reporting rule, and the fact that the 25,000 metric ton threshold would capture approximately 94 percent of GHG emissions associated with stationary sources in California (CAPCOA, page 44), Shasta County has used the 25,000 metric tons/year of CO₂e threshold in past projects, and chooses to do so for this project.

Therefore, if the proposed project generates 25,000 metric tons of CO₂e or greater in a year, it would be considered to have a significant and cumulatively considerable impact on the environment. If the proposed project would generate less than 25,000 metric tons of CO₂e per year, it would be considered a less than significant and less than cumulatively considerable impact related to climate change and

GHGs. In order to determine if the proposed project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, the proposed project is compared to the most applicable and relevant state-level regulations adopted to reduce GHG levels.

Emissions of Criteria Pollutants and GHGs

Construction: Construction emissions are described as “short term” or temporary in duration and may represent a significant impact on air quality. Construction-related activities would result in emissions of ROG, NO_x, PM₁₀, and PM_{2.5} from site preparation (excavation, grading, and clearing) and mobile activities (off-road equipment, deliveries, employee exhaust, and vehicle travel). Fugitive dust emissions are associated primarily with site preparation and vary upon site conditions. Ozone precursor emissions (ROG and NO_x) are associated primarily with equipment exhaust and the application of coatings.

Emissions factors for this section are estimated based on equations from the Environmental Impact Report (EIR) for the Placer County Cabin Creek Biomass gasification project, which is a similar biomass project. The Placer County EIR was designed for a 2-MW gasification facility with construction of a 10,800-square-foot building, a one-acre covered storage building, associated access roads, trenching for an underground transmission line connection, and an employee parking lot on a 3.7-acre, undeveloped site. Total construction time for the Cabin Creek project was estimated at 6 months.

Planned construction at the project site will include erection of a pole barn (approximately 2,500 square feet) for the purpose of protecting feedstock storage from moisture and wind. Some trenching may be required for electrical wiring. The proposed project site is on the currently active industrial facility and is already cleared and leveled; therefore, minimal grading activities will be required. Paving activities are limited to 0.2 acres located underneath and immediately adjacent to the gasification equipment. Total construction time, including the set-up of the gasification equipment, is expected to take less than three months.

The Cabin Creek project is located on a previously forested, undeveloped site, whereas the proposed project is located at an existing industrial facility. Unlike the Cabin Creek project, no tree clearing or significant grading will be required for this project. The Cabin Creek project estimated a total 2 acres of paving as opposed to the 0.5 acres proposed for this project. Furthermore, no access roads or trenching is required for the proposed project as it will be using existing access roads and located adjacent to the tie-in point. The Cabin Creek project proposed two buildings: a 10,800 square foot building to house the gasification equipment, and a 1-acre feedstock storage building. The proposed project plans the construction of a 3,807 square foot building to house the gasification equipment and a 2,500 square foot feedstock storage building. As construction on the project site is considerably less than that at the Placer County site, emissions factors have been halved as shown in Table 1 below to more accurately represent the construction-related emissions at the project site.

| | ROG (lb/day) | NO_x (lb/day) | PM₁₀ (lb/day) | PM_{2.5} (lb/day) |
|-----------------------------|-------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| Maximum Daily Emissions | 34.5 | 20 | 4 | 2.5 |
| Threshold of Significance A | 25 | 25 | 80 | N/A |
| Threshold of Significance B | 137 | 137 | 137 | N/A |

As shown in Table 5, construction of the project would result in maximum unmitigated daily emissions of 34.5 lb/day ROG, 20 lb/day NO_x, 4 lb/day PM₁₀, and 2.5 lb/day PM_{2.5}. Dust control practices that will be implemented at the site will minimize fugitive dust emissions. Exhaust emissions will be limited due to site practices and CARB requirements to limit idling of off-road equipment to less than five minutes. Short-term construction emissions would not exceed SCAQMD’s Level A or Level B significance thresholds for NO_x, PM₁₀, or PM_{2.5} and, thus, would not contribute to pollutant concentrations that exceed the NAAQS or CAAQS. Because PM₁₀ emissions are would be less than the threshold of 80 lb/day, and because PM_{2.5} is a subset of PM₁₀, it is not anticipated that construction activities would result in PM_{2.5} emissions in excess of the applicable ambient air quality standards. Project construction may result in unmitigated ROG emissions of up to 34.5 lb/day which exceeds the District threshold A of 25 lb/day. Implementation of SMMs and appropriate BMM would be required by the Shasta County General Plan. The emission of ROG at construction sites comes primarily from paving activity and architectural coatings. As there are limited paving activities planned and the only building planned is the 2,500-square-foot pole barn, ROG emissions are expected to be considerably less than the unmitigated 34.5 lb/day estimated. This would be a less than significant impact.

Stationary: Emissions factors for this section are extrapolated from the North Fork Bioenergy Facility CEQA Initial Study submitted to the San Joaquin Valley Air Pollution Control District and information provided by the manufacturer. Manufacturer emissions estimates for NO_x, CO and ROG are included below. NO_x emissions are post-Selective Catalytic Reduction (SCR) system. PM₁₀ and SO_x emissions

are estimated from the North Fork Facility. The North Fork Facility has a projected output of 1 MW and is estimated to require 8,000 BDT of biomass annually. Emissions factors from the North Fork Facility are detailed in Table 2 below:

| Pollutant | EF (lb/hr) ICE | EF (lb/hr) Flare |
|------------------|-------------------|---------------------|
| NO _x | -- | 0.80 |
| PM ₁₀ | 0.16 | 0.10 |
| SO _x | 0.10 | 0.08 |
| CO | -- | 4.36 |
| ROG ¹ | -- | 0.74 |

¹ The North Fork estimate is VOC instead of ROG, but for this estimation, the emissions are viewed as comparable.
¹ The emissions factors for NO_x,

Emissions factors for PM₁₀ and SO_x will remain constant; however, the throughputs will be tripled to yield triple the total emissions as calculated for the North Fork Bioenergy Facility review to represent the 3-MW facility at Hat Creek Construction and Materials which is expected to require 22,000 BDT of biomass annually. Proposed emissions factors and total potential from emission from the project engines and flare project are shown in Table 3 below.

| Pollutant | EF (lb/hr) ICE | EF (lb/hr) Flare | Daily Emissions (lb/day) ² | Annual Emissions (tons/year) ³ |
|------------------|-------------------|---------------------|---|---|
| NO _x | 0.22 | 2.40 | 7.69 | 1.03 |
| PM ₁₀ | 0.48 | 0.30 | 11.82 | 1.91 |
| SO _x | 0.30 | 0.24 | 7.44 | 1.20 |
| CO | 0.316 | 13.08 | 20.66 | 2.13 |
| ROG ¹ | 0.064 | 2.22 | 5.98 | 0.40 |

¹ The manufacturer's estimate is VOC instead of ROG, but for this estimation, the emissions are viewed as comparable.
² Assumes 24 hr ICE operation and 1hr flare operation
³ Assumes operation at 90% capacity (7884 hrs ICE and 135 hrs flare)

In addition to the internal combustion engine and the flare, the proposed facility at the site will have a dryer which introduces an additional emissions unit. The emissions factors for this estimate also come from the North Fork Bioenergy Facility. The facility's dryer is expected to run off of process heat from the engine and not burn a fossil fuel for the majority of its heat production. As the need for the dryer is variable depending on site conditions and moisture of feedstock, projected hours of operation cannot be determined. Therefore, the maximum conservative estimate (8,760 operating hours) is utilized. Dryer emissions are shown in Table 4 below.

| Pollutant | Emissions Factor | Consumption | Projected Emissions ¹ |
|------------------|--------------------------|--------------|-------------------------------------|
| NO _x | 0.06 lb/MMBtu | 3.0 MMBtu/hr | 0.79 tons/year |
| PM ₁₀ | 0.31 lb/BDT ² | 1 BDT/hr | 1.36 tons/year |

¹ Dryer estimates assume 8760 operating hours annually
² Assumes 10% moisture of outgoing fuel and 50% moisture for incoming fuel

Mobile: Mobile emissions sources from facility operation include chipping biomass, delivery truck activity, loader activity onsite, employee commute trips, and biochar hauling. A front loader will operate onsite to move biomass feedstock to the dryer hopper as well as

stacking and organizing feedstock delivery. The Cabin Creek project assumes vehicle traffic from employees and feedstock deliveries. The Cabin Creek project estimated 5 employees and 1,360 feedstock deliveries per year (17,000 BDT feedstock required at 12.5 BDT per load). The proposed project estimates an additional 2 employees and 1,760 feedstock deliveries per year (22,000 BDT required at 12.5 BDT per load). The calculations for the Placer County Cabin Creek EIR were adjusted from the 2-MW plant at Cabin Creek to the 3-MW plant at Hat Creek Construction and Materials by multiplying biomass collection emissions activities by a factor of 1.5. Employment-related activities at the site remain the same. Mobile source emissions are included in Table 5 below.

| Source | NO _x | ROG | PM ₁₀ | PM _{2.5} |
|------------------------------|-----------------|------------|------------------|-------------------|
| Chipping Biomass | 63.3 | 6.0 | 2.1 | 2.1 |
| Truck Activity at the Plant | 1.05 | 0.15 | 0.15 | 0.15 |
| Loader Activity at the Plant | 13.2 | 1.35 | 0.45 | 0.45 |
| Employee Commute Trips | 0.3 | 0.15 | <0.1 | <0.1 |
| Trucks Hauling Biomass | 14.25 | 0.3 | 20.1 | 2.1 |
| Trucks Hauling Biochar | 1.35 | 0.15 | 0.15 | 0.15 |
| TOTAL | 93.45 | 8.1 | 23.05 | 5.05 |

Pre-Project Potential to Emit: The potential to emit (PTE) before the implementation of the proposed project is from the disposal method of sustainably sourced forest woody biomass feedstock. Pile and burn is a common disposal method in the project area – especially following a large storm/fire event. Material not burned is typically scattered and left to decompose. Pile and burn practices are designed to minimize GHG emissions by reducing the production of methane through decomposition.

Pre-project emissions include the open burning of forest-thinning slash and fuels in nearby forests and emissions associated with aerobic decomposition from forest slash cut and scattered on the forest floor. Shasta County AQMD provided smoke management plans for 3,748 acres in 2014 and 3,500 in 2015. In 2014, 2,866 of these acres were located within an accessible radius (50 miles) of the proposed facility. 2,686 acres were permitted in 2015 in this same area. Because SPI operates a biomass cogeneration plant in Shasta County, burn acres from SPI-owned property have been excluded as SPI is not expected to be a supplier to the proposed project. A study performed by the USFS estimates that approximately 41 tons of slash brush and other material are produced per acre thinned (Schimke and Dougherty, 1966). Using these estimations, approximately 58,753 BDT of slash and other materials were produced within the vicinity of the project area in 2014 and 55,063 BDT of slash and other materials were produced in 2015. While this estimation shows an excess of piled and burned material within the accessible radius of the project site, for the purposes of conservatively estimating avoided emissions it is assumed that this facility will use 50 percent of forest-sourced biomass material that would have been piled and open-burned and 50 percent of forest-sourced biomass material that would have been scattered to decompose.

Emission factors for the pile and burn scenario are based on a study by the National Renewable Energy Laboratory (NREL).¹ The result of this study is shown in Table 8 and includes the emissions from processing and transportation of woody biomass feedstock. The proposed project expects to utilize 22,000 BDT of feedstock per year. Avoided emissions are calculated using the assumption that 50 percent of the feedstock is diverted from pile and burn fate, and assuming that 95 percent of a slash pile is burned, while the remaining 50 percent is diverted from a decomposition fate. No criteria emissions are assumed from the wood fated for decomposition. The pre-project potential to emit is shown Table 6 below.

| Pollutant | EF (lb/th.bdt) | Consumption (th.bdt/year) | Projected Emissions (tons/year) |
|------------------|----------------|---------------------------|---------------------------------|
| NO _x | 7,000 | 10.45 | 36.56 |
| PM ₁₀ | 15,000 | 10.45 | 78.38 |
| SO _x | 150 | 10.45 | 0.78 |
| CO | 150,000 | 10.45 | 783.75 |
| ROG | 24,000 | 10.45 | 125.40 |

Net Potential to Emit: The net emissions based on the project represent the difference between the pre-project potential to emit and the project’s potential to emit, shown in Table 7 below.

¹ Morris, Gregory Paul. “The value of the benefits of US biomass power.” National Renewable Energy Laboratory, 1999. Evaluation and Addendum to EIR – UP99-017A1 (TLT ENTERPRISES, LLC) 41

| Pollutant | Pre-Project Annual Emissions (tons/year) | Post-Project Annual Emissions (tons/year) | Net Project Annual Emissions (tons/year) |
|------------------|---|--|---|
| NO _x | 36.56 | 17.17 | -19.405 |
| PM ₁₀ | 78.38 | 7.06 | -71.32 |
| SO _x | 0.78 | 1.2 | 0.42 |
| CO | 783.75 | 2.13 | -781.62 |
| ROG | 125.40 | 1.73 | -123.67 |

As shown in the Table 10 above, the proposed project will have a net-benefit impact to emissions when compared to the alternative of open burning.

Construction and mobile emissions for the project are extrapolated from the Placer County Cabin Creek Forest Biomass project EIR, which used Cal EEMod, ARB's OFFROAD2007, ARB's EMFAC2011, ARB's Mandatory Reporting guidance, and EPA AP-42 for GHG modeling and calculations. Because proposed construction activities and added employees are less than that involved in the Placer County Cabin Creek EIR, construction- and employee-related emissions were not scaled up. The remainder of the emissions are scaled up by a factor of 1.5 to accommodate the larger output.

Project emissions related to the burning of biomass were estimated using the default CO₂ emissions factors found in CARB's Mandatory Reporting of Greenhouse Gases rule (MRR). Project emissions were calculated according to the procedures outlined in the MRR. The production of syngas with a downdraft gasification vessel leaves approximately 10 percent of the original woody biomass feedstock input as biochar. Biochar is augered out of the gasification vessel and is a byproduct of downdraft gasification. The concentration of carbon in the remaining biochar varies by feedstock. For woody biomass, residual carbon concentrations range from 53.9 percent to 78 percent of the original feedstock.

Currently, the primary market for biochar is soil amendment. The fixed carbon within the biochar has a half-life of over 1,000 years. This fixed carbon is the source of carbon sequestration with biochar. Using the average residual carbon concentration, this yields approximately 0.053 tons of carbon sequestered per ton of woody biomass feedstock consumed. Converting carbon sequestration to carbon dioxide reduction yields 0.19 tons of carbon dioxide reduction per ton of feedstock consumed.

The project offers carbon sequestration potential through the production of biochar as shown in the Table 8 below.

| Pollutant | EF (tons/bdt) | Consumption (bdt/year) | Projected Emissions (tons/year) |
|------------------|----------------------|-------------------------------|--|
| CO _{2e} | 0.19 | 22,000 | 4,180 |

Scenario 1 – Carbon Neutral: As explained previously in this document, biomass combustion for the production of energy is considered to be carbon neutral, and is considered as such by state, federal and international agencies. CO_{2e} emissions related to the burning of woody biomass has been exempted from the cap and trade program for this reason and, as such, it is reasonable to consider the calculation of total emissions as potentially carbon neutral when determining the project's environmental impacts. Total net project greenhouse gas emissions are summarized in the Table 9 below when biomass production of energy is considered carbon neutral:

| Emissions Source | Projected GHG Emissions (MT CO _{2e} /yr) |
|--|--|
| Construction Emissions | 4.5 ¹ |
| Project Emissions ² | 32,444 |
| Mobile Operations | 926 |
| Subtotal: | 33,374 |
| Exclusion of Biomass Combustion ² | -32,444 |
| Biochar Sequestration | -3,792 |
| Total Emissions: | -2,862 |
| Threshold of Significance: | 25,000 |
| ¹ = Amortized over 30 years ² = Biomass combustion GHG emissions are carbon neutral and therefore shown to result in zero net emissions | |

Scenario 2 – Avoided Emissions: Implementation of the project would result in the reduction of GHG emissions associated with activities that would occur if the proposed project were not implemented. These are referred to as “avoided emissions.” As explained in Section III, above, for the purposes of conservatively estimating avoided emissions, it is assumed that this facility will use least 50 percent of forest-sourced biomass material that would have been piled and open-burned and 50 percent of forest-sourced biomass material that would have been scattered to decompose. Without the proposed project, emissions from pile and burning and decomposition would occur. Using Intergovernmental Panel on Climate Change (IPCC) data for pile and burn emissions factors and decomposition emissions factors from a Stockholm Environment Institute report, avoided emissions factors are shown in Table 10 below.

| Pile and Burn | | | |
|---|-----------------|-----------------|------------------|
| | CO ₂ | CH ₄ | N ₂ O |
| Emission Factor (g/kg) | 1,550 | 6.1 | 0.06 |
| Global Warming Potential (g CO _{2e} /g) | 1 | 21 | 310 |
| CO _{2e} Emission Factor (g CO _{2e} /kg) | 1,550 | 128.1 | 18.6 |
| Total (g CO _{2e} /g) | 1,696.7 | | |
| Total (lb CO _{2e} /BDT) | 3,400.5 | | |
| Decomposition | | | |
| Total (tons CO _{2e} /BDT) | 1.58 | | |

The bioenergy facility is expected to consume 22,000 BDT annually, with at least 50 percent of that coming from piles that would have otherwise burned. With the assumption that 95 percent of a slash pile is burned, this results in CO_{2e} emissions reductions of 16,119 tonnes. The remaining 50 percent of the feedstock is assumed to decompose, which results in CO_{2e} emissions reductions of 14,979 tonnes. These are avoided emissions. When taking these avoided emissions into consideration, the proposed project will have a net-benefit to the environment, as shown in the Table 11 below.

| Emissions Source | Projected GHG Emissions (MT CO _{2e} /yr) |
|--|--|
| Construction Emissions | 4.5 ¹ |
| Project Emissions | 32,444 |
| Mobile Operations | 926 |
| Biochar | -3,792 |
| Reduced Open Burning | -16,119 |
| Reduced Decomposition | -14,979 |
| Total: | -1,516 |
| ¹ = Amortized over 30 years | |

Appendix B Noise Analysis Background

The closest sensitive receptors to the site are residences located across SR 89, approximately 0.56 miles to the northwest. These residences are located within 750 feet from the highway. A noise assessment was conducted near these receptors in May 2000 as part of Hat Creek Construction and Materials EIR process. This investigation noted that the daytime ambient average and maximum levels at the sensitive receptors were approximately 50 and 70 dB Leq and Lmax, respectively. Projected noise levels determined for major noise producing quarry project equipment and predicted noise levels from the quarry project are summarized below.

| Equipment Type | Approximate Noise Level at 100 feet, dBA | |
|--|--|---------|
| | Maximum | Average |
| Combined Excavating Equipment (Water Truck, Grader, Loader, Dozer) | 90 | 80 |
| Portable Crushing/Screening Plant | 85 | 80 |
| Asphalt Plant | 85 | 80 |
| Concrete plant | 85 | 80 |
| Truck Repair Facility: | | |
| Air Compressor | 70 | 60 |
| Impact Wrench | 75 | 65 |
| Die Grinder | 70 | 60 |

| Source(s) | Distance (ft) ¹ | Predicted Attenuation, dB ² | | Resulting Noise Levels ³ | |
|--|----------------------------|--|-------------|-------------------------------------|-----|
| | | Distance | Atmospheric | Lmax | Leq |
| Phase I Excavation | 5,500 | -65 | -8 | 47 | 37 |
| Phase II Excavation | 4,800 | -34 | -7 | 49 | 39 |
| Phase III Excavation | 4,000 | -32 | -6 | 52 | 42 |
| Crushing/Screening Plant | 5,200 | -34 | -8 | 43 | 38 |
| Asphalt Plant | 4,900 | -35 | -7 | 44 | 39 |
| Concrete Plant | 4,500 | -33 | -7 | 45 | 40 |
| Truck Repair Facility | 2,500 | -28 | -4 | 43 | 33 |
| Combined / Cumulative⁴ | --- | --- | --- | 54 | 46 |

Notes:

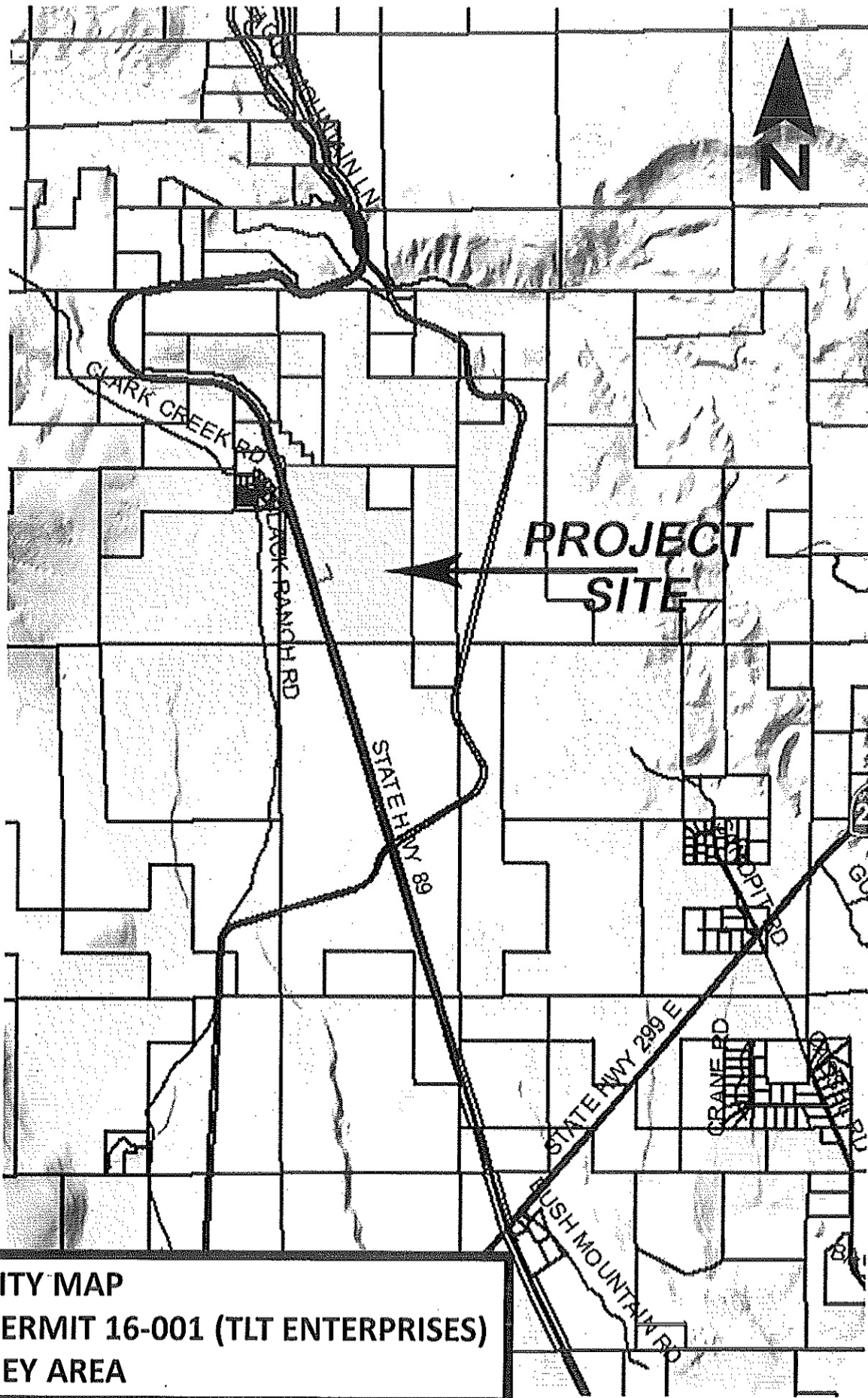
- 1) These distances shown are approximated in feet from the nearest residences to the general locations of the major noise sources.
- 2) A 6 dB attenuation rate per each doubling of distance from reference distance was used to project sound levels from sources to receivers. In addition, an attenuation rate of 1.5 dB per 1000 feet for atmospheric and excess anomalous attenuation was used to project sound levels from sources to receivers.
- 3) These levels represent the maximum and average hourly noise levels predicted at the nearest residential locations during normal activities proposed at the project site.
- 4) The combined/cumulative levels represent the energy summation of noise from all of the major noise sources operating concurrently, based on Phase III mining (worst-case) and assuming maximum noise levels are generated concurrently (conservative assumption).

residences. The resulting noise levels (Leq) described are also within nighttime noise levels.

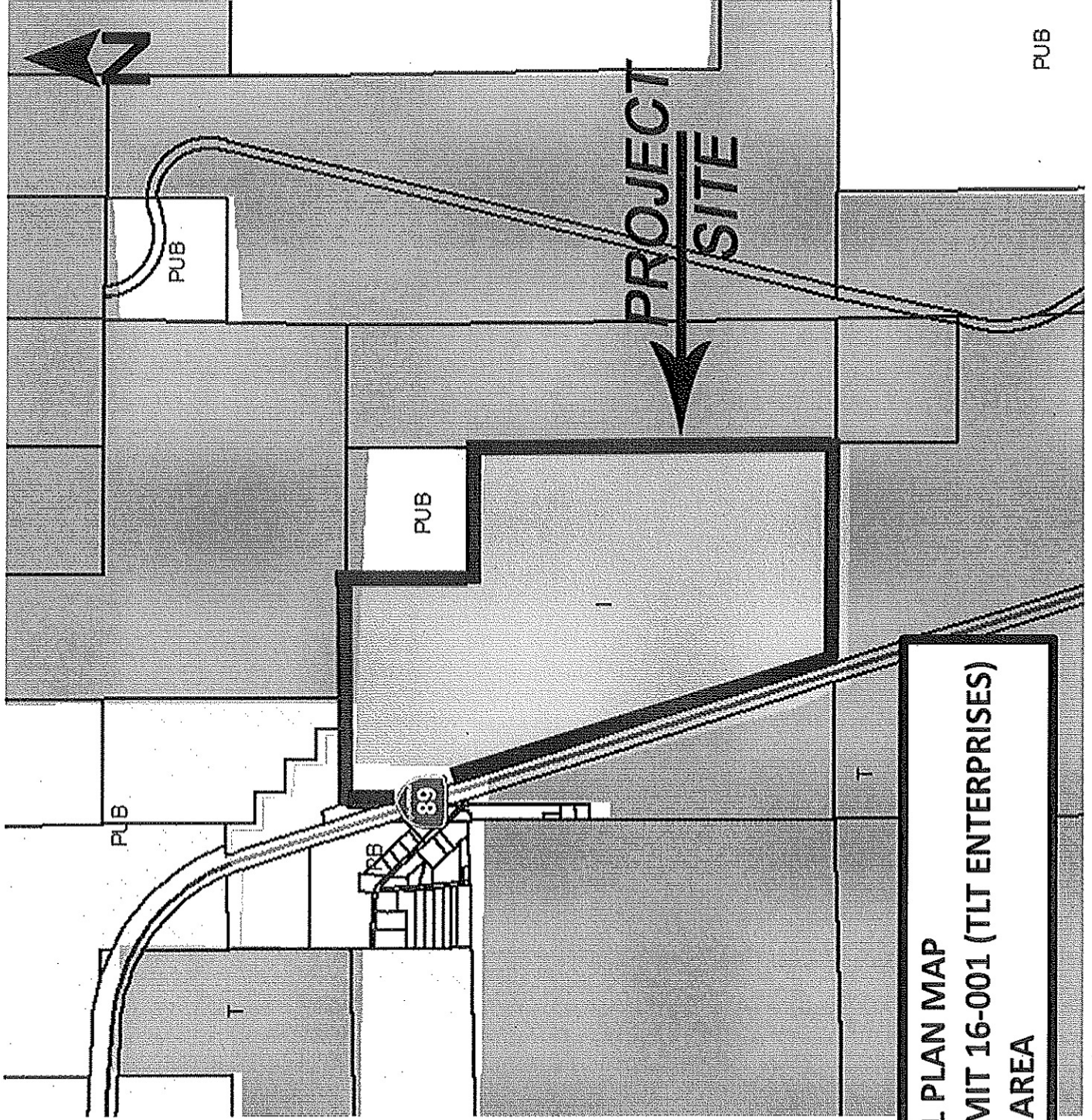
Estimated noise levels from the Placer County Cabin Creek Project EIR were considered in qualitatively evaluating potential noise impacts of the proposed gasification plant. The Cabin Creek project is a 2 MW gasification plant in Placer County. Average combined operational noise from the Cabin Creek project was estimated to 82 leq dB at 50 feet from the facility foot print. Average combined onsite construction-related activities Cabin Creek project was estimated in hourly average noise levels of approximately 85 dB Leq at 50 feet. The proposed facility would be able to produce more power, but this would not require a factoring up of those noise levels described in the Cabin Creek EIR for the purpose of evaluating noise impacts from the proposed project because, unlike air emissions, noise levels generated by mobile and stationary equipment used for the project would not increase proportionally with the increase in power output.

The construction and operational noise sources for proposed project would be similar to the Cabin Creek project except that the proposed project would also include noise from the chipper and two additional combustion engines with all four engines being located within sound attenuated trailers. Noise generated from the project would be expected to attenuate similarly to the levels of attenuation described in the table above.

Wood chipping activities may occur onsite in order to chip logs received from clean-up activities. Noise levels at the chipper are expected to be 99 dB at the source and drop to 75 dB 50 feet from the source (Berger, Neitzel, and Kladden 2010). Wood chipping activities are expected to be infrequent, short in duration, and conducted during the daytime. Even though the engines will be located within sound attenuated trailers. Noise information from the manufacturer indicates if fully exposed noise from the engines would be approximately 95 dB at one meter. This level would attenuate to 44dB at 1,080 feet and be reduced even further at the nearest residences.



VICINITY MAP
USE PERMIT 16-001 (TLT ENTERPRISES)
BURNLEY AREA



**GENERAL PLAN MAP
USE PERMIT 16-001 (TILT ENTERPRISES)
BURNLEY AREA**

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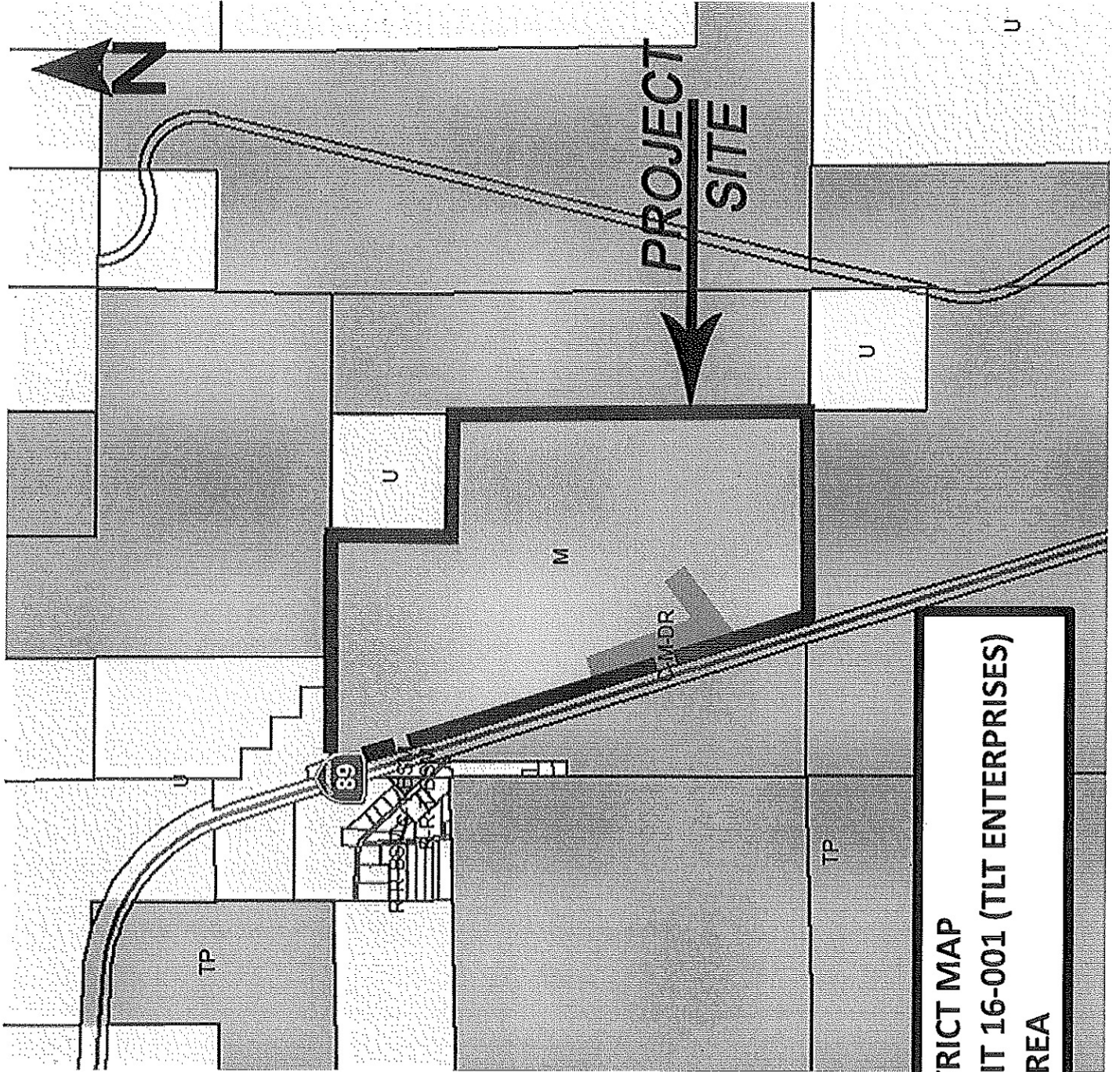
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**ZONE DISTRICT MAP
USE PERMIT 16-001 (TLT ENTERPRISES)
BURNEY AREA**

SITE PLAN WITH AERIAL IMAGE USE PERMIT 16-001 (TLT ENTERPRISES) BURNEY AREA



- ⊕ 12,000 Gallon Water Tank with Stand Pipe
- ⊕ Water Hydrant (1,000 Gallons per Minute)
- 20-Foot Wide Paved Access Road
- 25-Foot Wide Gravel Access Road
- Storage Area
- Approximate Parcel Boundary

Note: Piles not to exceed 500 feet in length, 100 feet in width, and 30 feet in height with 25 feet between piles

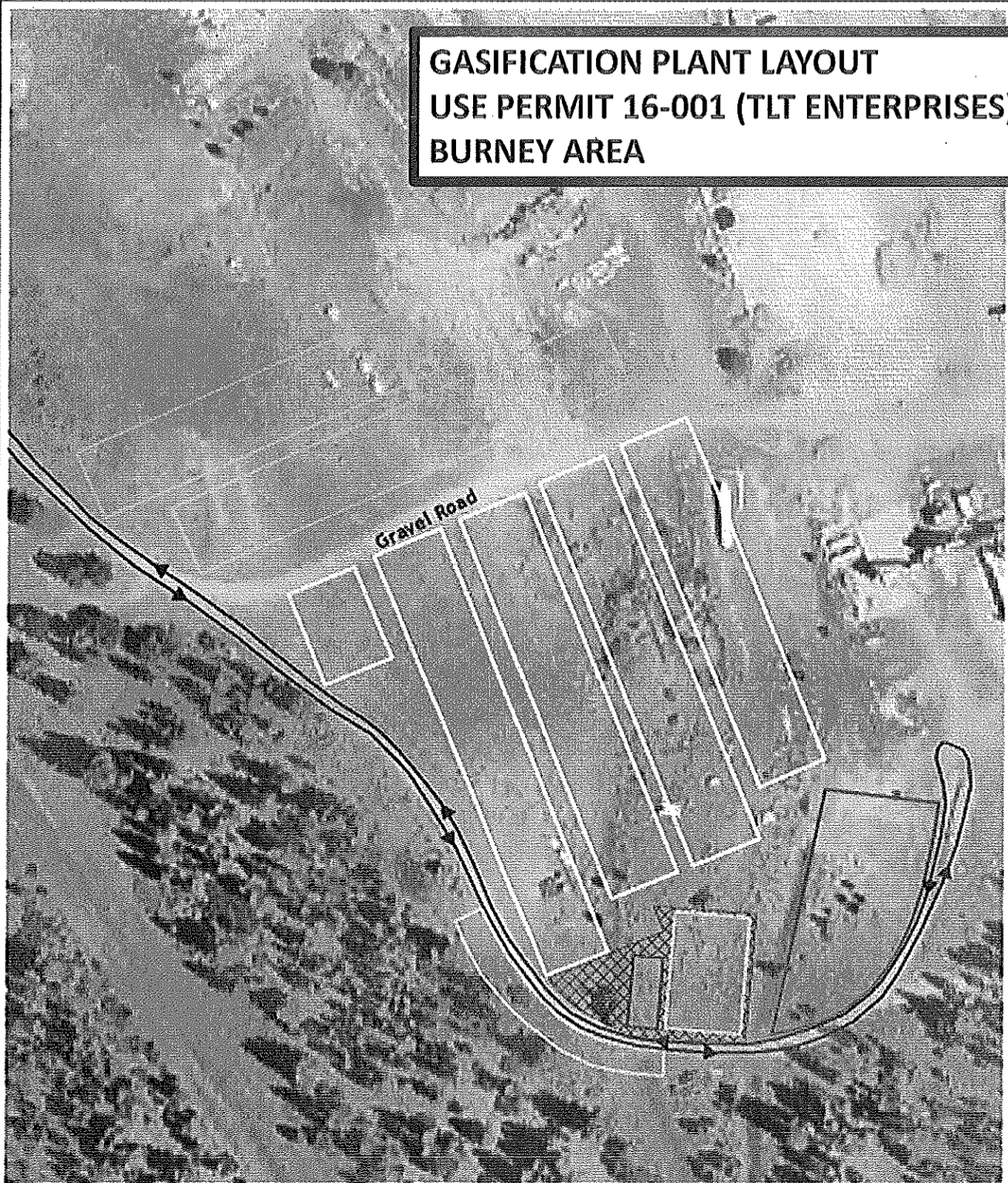


SOURCE: NAIP 2014 AERIAL PHOTOGRAPH

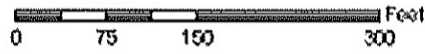


FIGURE 1
FIRE PLAN
BURNEY-HAT CREEK BIOENERGY FACILITY
SHASTA COUNTY, CALIFORNIA

**GASIFICATION PLANT LAYOUT
USE PERMIT 16-001 (TLT ENTERPRISES)
BURNEY AREA**



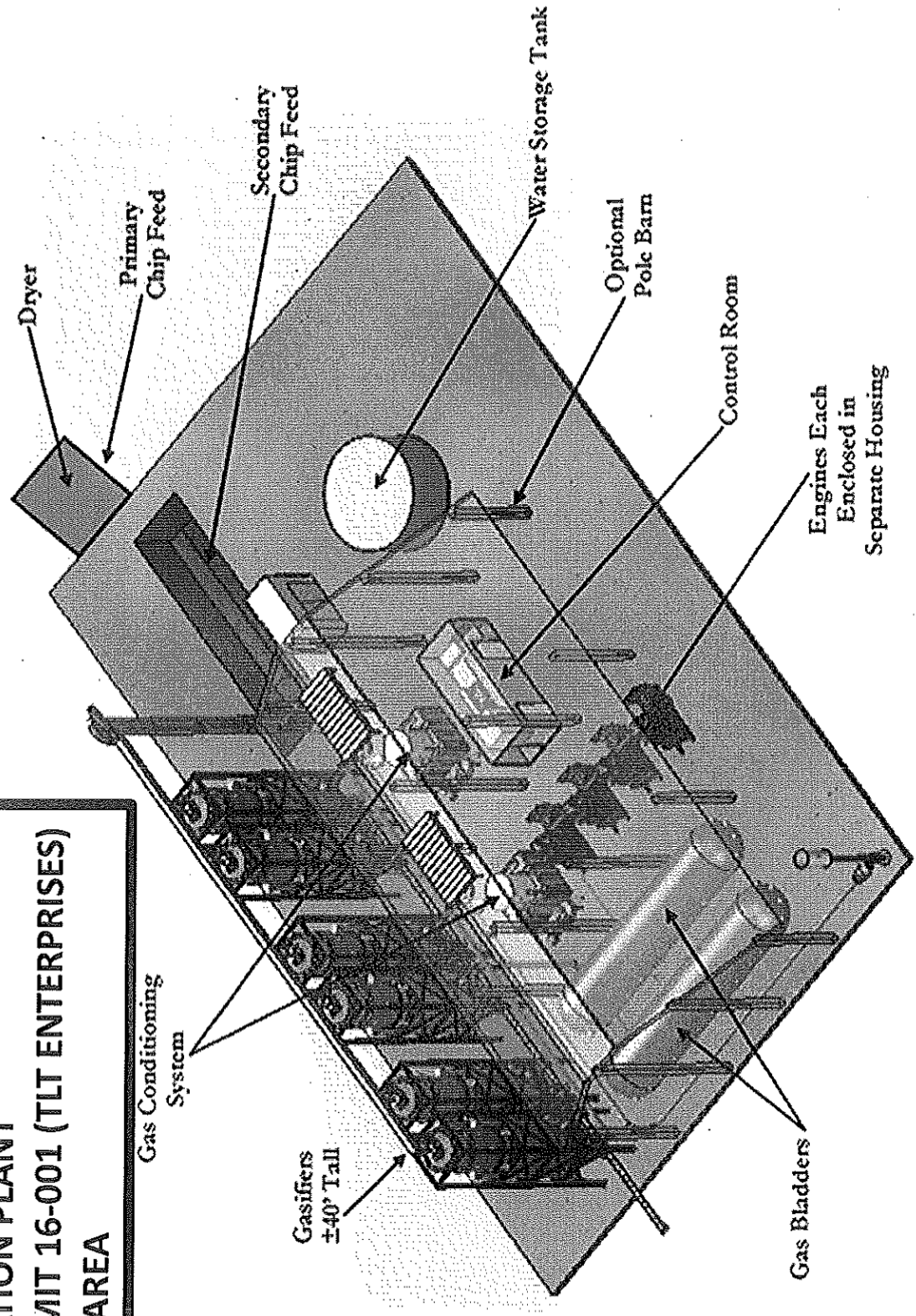
- ← Truck Access Road
- Auxiliary Long/Feedstock Storage
- Feedstock Storage (4-5 Months)
- Biochar Storage
- Employee Parking (Gravel)
- Gasification System
- ▨ Paved Area
- Pole Barn



**FIGURE 3
PROPOSED SITE LAYOUT
BURNEY-HAT CREEK BIOENERGY FACILITY
SHASTA COUNTY, CALIFORNIA**

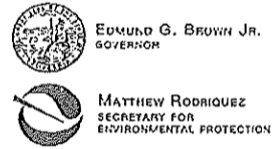
SOURCE: NAIP 2010 AERIAL PHOTOGRAPH

**GASIFICATION PLANT
USE PERMIT 16-001 (TLT ENTERPRISES)
BURNLEY AREA**



**FIGURE 5
DIAGRAM OF GASIFIER SYSTEM
BURNLEY-HAT CREEK BIOENERGY FACILITY
SHASTA COUNTY, CALIFORNIA**





Central Valley Regional Water Quality Control Board

11 April 2016

Mr. Lio Salazar
Shasta County
1855 Placer Street, Suite 103
Redding, CA 96001

RECEIVED
SHASTA COUNTY

APR 14 2016

DEPT OF RESOURCE MGMT
PLANNING DIVISION

**COMMENTS ON THE NEGATIVE DECLARATION FOR PROPOSED USE PERMIT 16-001
TLT ENTERPRISES PROJECT, BURNEY, SHASTA COUNTY**

The Central Valley Regional Water Quality Control Board (Central Valley Water Board) is a responsible agency for this project, as defined by the California Environmental Quality Act (CEQA). On 16 March 2016, we received your request for comments on the Mitigated Negative Declaration for the Use Permit 16-001 TLT Enterprises Project.

3MW Biomass Gasification Plant. The plant is proposed to be developed on a site where there exists a construction company, quarry, asphalt plant, concrete plant, brewery, and wild rice farm. The project site is a nine-acre portion of an approximately 342.88-acre site in the Burney area located on the right side of the State Highway 89, approximately 4 miles north of the intersection of State Highway 299 and State Highway 89.

Based on our review of the information submitted for the proposed project, we have the following comments:

General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (CGP)

Construction activity, including demolition, resulting in a land disturbance of one acre or more must obtain coverage under the CGP. The Use Permit 16-001 TLT Enterprises Project must be conditioned to implement storm water pollution controls during construction and post-construction as required by the CGP. To apply for coverage under the CGP the property owner must submit Permit Registration Documents electronically prior to construction. Detailed information on the CGP can be found on the State Water Board website:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/gen_const.shtml

If you have any questions or comments regarding this matter please contact me at (530) 224-4783 or dberchtold@waterboards.ca.gov.

Danna J. Berchtold
Engineering Associate
Storm Water & Water Quality Certification Unit

DJB: wrb: reb

cc list on following page

cc: Mr. Matt Kelley, U.S. Army Corp of Engineers, Redding
Ms. Donna Cobb, Department of Fish and Wildlife, Region 1, Redding

Northeast Center of the
California Historical Resources
Information System

BUTTE
GLENN
LASSEN
MODOC
PLUMAS
SHASTA

SIERRA
SISKIYOU
SUTTER
TEHAMA
TRINITY

123 West 6th Street, Suite 100
Chico CA 95928
Phone (530) 898-6256
neinfocntr@csuchico.edu

March 1, 2016

Shasta County Department of Resource Management
Planning Division
1855 Placer Street, Suite 103
Redding, CA 96001
ATTN: Lio Salazar

RECEIVED
SHASTA COUNTY

MAR 04 2016

DEPT OF RESOURCE MGMT
PLANNING DIVISION

**I.C. File # A16-1
Project Review**

RE: UP 16-001, TLT Enterprises
T36N, R3E, Section 10
USGS Burney, Burney Falls, Cassel, and Dana (1990) 7.5' and Burney (1957) and
Pondosa (1961) 15' quads
342.88 acres (Shasta County)

Dear Mr. Salazar,

In response to your request, a project review for the project cited above was conducted by examining the official maps and records for archaeological sites and surveys in Shasta County.

RESULTS:

Prehistoric Resources: According to our records, no sites of this type have been recorded in the project area. However, 13 sites of this type have been recorded in the project vicinity consisting of lithic scatters, possible house pits, stone features, bedrock mortars, hopper mortars, metates, manos, a petroglyph, human burials, burial cairns, cairns, shell middens, middens, projectile points, and stone tools. The project is in a region utilized by Wintu populations. Unrecorded prehistoric cultural resources may be located in the project area.

Historic Resources: According to our records, two historic sites have been recorded in the project area. See Table 1 for more information. Additionally, 12 sites of this type have been recorded in the project vicinity, consisting of terraces, roads, structures, foundations, ditches, a pump house, rock wall, railroad grade, apple orchard, loading chute, building depressions, fences, fence lines, machinery, and historic refuse deposits. Unrecorded historic cultural resources may be located in the project area.

Table 1, Historic Sites in the General Project Vicinity

| State Number | Site Description |
|--------------|---|
| CA-SIS-2325H | Railroad segments, spikes, ties, rails, ancillary building, water tower, highway segments, and historic refuse deposits |
| CA-SHA-3775H | Historic refuse deposit |

The USGS Burney, Burney Falls, Cassel, and Dana (1990) 7.5' and Burney (1957) and Pondosa (1961) 15' quad maps indicate that a lumber mill, roads, structures, a road on a levee, the Shasta National Forest (Administered by Lassen National Forest), a landing strip, pond, and the McCloud River Railroad are located in the project area, while Lake Britton, the Lake Britton Archaeological District (listed on the California Inventory of Historic Resources), Four Corners, Burney Creek, Pit River, McArthur-Burney Falls Memorial Park, Pioneer Cemetery, Camp Britton, Pacific Crest National Scenic Trail, ferry, headquarters, footbridge, Burney Falls, Britton Cemetery, springs, The Pines Picnic Area, Albion School, Braden Sand Pit, sand pits, Highway 89, Jamo Point, boat ramp, spillways, Dusty Campground, Arkright Flat, mines, Soldier Creek, 4WD roads, Highway 77, pipeline, trailer park, Burney Spring Mountain, Long Valley, Burney Falls Cemetery, Pit No. 3 Dam, Camp Shasta, roads, trails, an airstrip, and structures are located in the project vicinity.

Previous Archaeological Investigations: According to our records, portions of the project area have been previously surveyed for cultural resources by a professional archaeologist. The studies are listed below.

Jensen, Peter

2001 *Archaeological Inventory Survey: Proposed Deceleration Lane, Northbound Highway 89, North of Four Corners and Highway 299E, Shasta County, California.*
NEIC Report 004061

McGann, Dan

2005 *Historic Property Survey Report for the Proposed Four Corners Rehabilitation Project Near Burney, Shasta County, California.*
NEIC Report 006546

Resources:

P-45-003775 (CA-SHA-003775H)

Literature Search: Reviewed were the official records and maps for archaeological sites and surveys in Shasta County. Also reviewed were the National Register of Historic Places - Listed Properties and Determined Eligible Properties (2012), California Register of Historical Resources (2012), California Points of Historical Interest (2012), California Historical Landmarks (2012), Historic Spots in California (1966), Handbook of North American Indians, Volume 8, California (1978), and Directory of Properties in the Historic Property Data File for Shasta County (2012) Dictionary of Early Shasta County History (1991).

RECOMMENDATIONS:

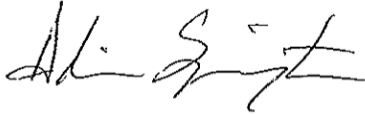
Based upon the above information, the project appears to be located in an area considered to be highly sensitive for prehistoric and historical resources. The project area is located in a region utilized by prehistoric and historic populations. The Wintu populations used the local region for seasonal and/or permanent settlement, as well as for the gathering of plants, roots, seeds, and hunting waterfowl and game. Most plants and animals had multiple uses, serving subsistence, religious, and material necessities. Historically, the region was utilized for farming and transportation.

Therefore, because the previous surveys are more than ten years old, we recommend that a professional archaeologist be contacted to conduct a cultural resources survey and review of the project area. The project archaeologist will be able to offer recommendations for protection or mitigation of previously recorded sites as well as any new cultural resources that may be encountered as a result of the cultural resource survey. The project archaeologist should also contact the appropriate local Native American representatives for information regarding traditional cultural properties that may be located within project boundaries for which we have no records. This person may also want to consult historic General Land Office (GLO) plat maps in order to aid in the identification of unrecorded historic sites, which may be located within project boundaries. A list of qualified consultants is available online at www.chrisinfo.org/.

During any phase of project activities, if any potential prehistoric, protohistoric, and/or historic cultural resources are encountered, all work should cease in the area of the find pending an examination of the site and materials by the project archaeologist. This request to cease work in the area of a potential cultural resource find should be made a condition of project approval. This condition is intended for accidental discoveries made during construction activities, and does not replace the need for a Phase I investigation that assists planners and developers in meeting California Environmental Quality Act (CEQA) obligations during the Initial Study planning phase. The recommendation for a Phase I Cultural Resource Evaluation enables the lead agency to fulfill their obligations under CEQA to identify potentially significant historical resources. A Phase I investigation includes background research (record search), a field inspection, and report documenting the presence or absence of prehistoric or historic features, buildings, or archaeological sites. If potentially significant sites are identified during the Phase I investigation, further work may be necessary to determine site significance as well as appropriate protection or mitigation measures.

The fee for this project review is \$75.00 (1 hour Project Review Time @ \$75.00 per hour). Payment for this project review was received on February 15, 2016 (Check # 40065). Thank you for your dedication in preserving Shasta County and California's irreplaceable cultural heritage, and please feel free to contact us if you have any questions or need any further information or assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Adrienne Springsteen". The signature is fluid and cursive, with a large initial "A" and a long, sweeping tail.

Adrienne Springsteen, B.A.
Research Assistant