



ENVIRONMENTAL ASSESSMENT/
FINDING OF NO SIGNIFICANT IMPACT

Tuolumne Bioenergy Woody Biomass Pellet Manufacturing Facility

December 2021

PREPARED FOR:

California Department of Housing and Community Development
2020 West El Camino Avenue, Suite 400
Sacramento CA 95833

Environmental Assessment/
Finding of No Significant Impact for the
Tuolumne Bioenergy Woody Biomass Pellet
Manufacturing Facility

Prepared for:

California Department of Housing and Community Development
2020 West El Camino Avenue, Suite 400
Sacramento CA 95833

Prepared By:

Ascent Environmental, Inc.
455 Capitol Mall, Suite 300
Sacramento, California 95814

Contacts:

Adam Lewandowski, Project Director
Tiffany Lunday, Project Manager

December 2021

ENVIRONMENTAL ASSESSMENT

Responsible Entity: [24 CFR 58.2(a)(7)] California Department of Housing and Community Development
Certifying Officer: [24 CFR 58.2(a)(2)] Janice L. Waddell, Federal Programs Branch Chief
Project Name: Tuolumne Bioenergy Woody Biomass Pellet Manufacturing Facility
Project Location: Camage Ave, Sonora, CA 95370, Tuolumne County Assessor Parcel Numbers (APN) 061-150-046 and 061-150-047.
Estimated Total Project Cost: \$12,895,000
Loan/Grant Recipient: [24 CFR 58.2(a)(5)] Force Energy Corporation
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Sonora, CA 95370
Phone: (587) 329-2700
Project Representative: Etienne Patenaude, President, Force Energy Systems
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Sacramento, CA 95814
Phone: (916) 444-7301
Direct Comments to: NEPAComments@HCD.CA.Gov
Date Completed December 13, 2021

Conditions for Approval: (List all mitigation measures adopted by the responsible entity to eliminate or minimize adverse environmental impacts. These conditions must be included in project contracts and other relevant documents as requirements). [24 Code of Federal Regulations (CFR) 58.40(d), 40 CFR 1505.2(c)]

Mitigation Measure 1: Inadvertent Discovery of Historical and Archaeological Resources

In the unlikely event that buried cultural deposits (e.g., prehistoric stone tools, milling stones, historic glass bottles, foundations, cellars, privy pits) are encountered during project implementation, all ground-disturbing activity within 100 feet of the resources shall be halted and a qualified professional archaeologist (36 Code of Federal Regulations [CFR] 61) shall be notified immediately and retained to assess the significance of the find. Construction activities could continue in other areas. If the find is determined to be significant by the qualified archaeologist (i.e., because it is determined to constitute either a historical resource or a unique archaeological resource), the archaeologist shall develop appropriate procedures to protect the integrity of the resource and ensure that no additional resources are affected. Procedures could include but would not necessarily be limited to preservation in place, archival research, subsurface testing, or contiguous block unit excavation and data recovery.

Mitigation Measure 2: Inadvertent Discovery of Human Remains

In accordance with the California Health and Safety Code (CHSC), Section 7050.5, and the Public Resources Code (PRC) 5097.98, regarding the discovery of human remains, if any such finds are encountered during project construction, all work within the vicinity of the find shall cease immediately, a 100-foot-wide buffer surrounding the discovery shall be established, and the County shall be immediately notified. The County Coroner shall be contacted immediately to examine and evaluate the find. If the coroner determines that the remains are not recent and are of Native American descent, the County Coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendent (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

Mitigation Measure 3: Nesting Birds

Prior to project construction activities, including ground disturbance, grading, and staging, the project site will be surveyed for active nesting activity. If nesting birds are present on the project site, project construction activities will be scheduled to avoid the nesting bird season for the detected species, which would occur between approximately February 1 through August 31.

Mitigation Measure 4: Exclusion Fencing

Permanent fencing or temporary high-visibility construction fencing shall be installed between the riparian mixed hardwood habitat, outside of the dripline of the riparian tree canopy, and the active construction site to prevent entry by vehicles, equipment, or construction personnel.

FINDING: [58.40(g)]

- Finding of No Significant Impact**
(The project will not result in a significant impact on the quality of the human environment)
- Finding of Significant Impact**
(The project may significantly affect the quality of the human environment)

Preparer Signature:  Date: December 13, 2021

Name/Title/Agency: Adam Lewandowski, Project Director
Ascent Environmental, Incorporated

RE Approving Official Signature:  Date: 12/13/2021

Name/Title/Agency: Jessica Hayes, Disaster Recovery Branch Chief
California Department of Housing and Community Development

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LIST OF ABBREVIATIONS

APE	Area of Potential Effects
APN	Assessor's Parcel Numbers
BCHP	Biomass Combined Heat and Power system
BDT	bone dry tons
BMP	best management practices
BUF	Biomass Utilization Facility
Cal/OSHA	California Occupational Safety and Hazard Administration
Caltrans	California Department of Transportation
CBC	California Building Code
CBRS	Coastal Barrier Resources System
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CHP	California Highway Patrol
CHSC	California Health and Safety Code
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
DTSC	department of Toxic Substance Control
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Maps
FONSI	Finding of No Significant Impact
FSA	feedstock supply area
GHG	Greenhouse Gas
HCD	Housing and Community Development
HUD	Housing and Urban Development
IPaC	Information for Planning and Consultation
MCAB	Mountain Counties Air Basin
MLD	Most Likely Descendent
MT	metric tons
NDR	National Disaster Resilience
NDRC	National Disaster Resilience Competition
NOx	nitrous oxide

NPDES	National Pollutant Discharge Elimination System
OSHA	Occupational Safety and Hazard Administration
PM ₁₀	particulate matter with diameters generally 10 micrometers and smaller
PRC	Public Resources Code
RCAC	Rural Community Assistance Corporation
RCRA	Resource Conservation and Recovery Act
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SERAL	Social and Ecological Resilience Across the Landscape
sf	square foot
SHPO	State Historic Preservation Officer
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Quality Control Board
TBI	Tuolumne Bioenergy, Inc.
TCOES	Tuolumne County Office of Emergency Services
TRI	Toxic Release Inventory
TUD	Tuolumne Utilities District
UCMP	University of California Museum of Paleontology
USDA	U.S. Department of Agriculture
USDOT	U.S. Department of Transportation
USFS	United States Forest Service
USFWS	U.S. Fish and Wildlife Service
YSS	Yosemite Stanislaus Solutions

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1 PROPOSED PROJECT AND PROJECT ALTERNATIVES

1.1 PROJECT LOCATION

The project site consists of a 3.27-acre leased property comprised of two parcels (Assessor's Parcel Numbers [APNs] 061-150-46 and 061-150-47) in an industrial business park in Sonora, CA. The parcels are bounded on the north by Camage Avenue, on the south by Curtis Creek and oak woodlands designated as open space, and to the west and east by developed industrial use parcels (Figures 1-1 and 1-2). Standard Park, a public sports park facility, is located southeast of the project site, and consists of four baseball diamonds and ancillary sports facilities.

1.2 DESCRIPTION OF THE PROPOSAL

Include all contemplated actions which logically are either geographically or functionally a composite part of the project, regardless of the source of funding. [24 CFR 50.12 & 58.32; 40 CFR 1508.25]

1.2.1 Background

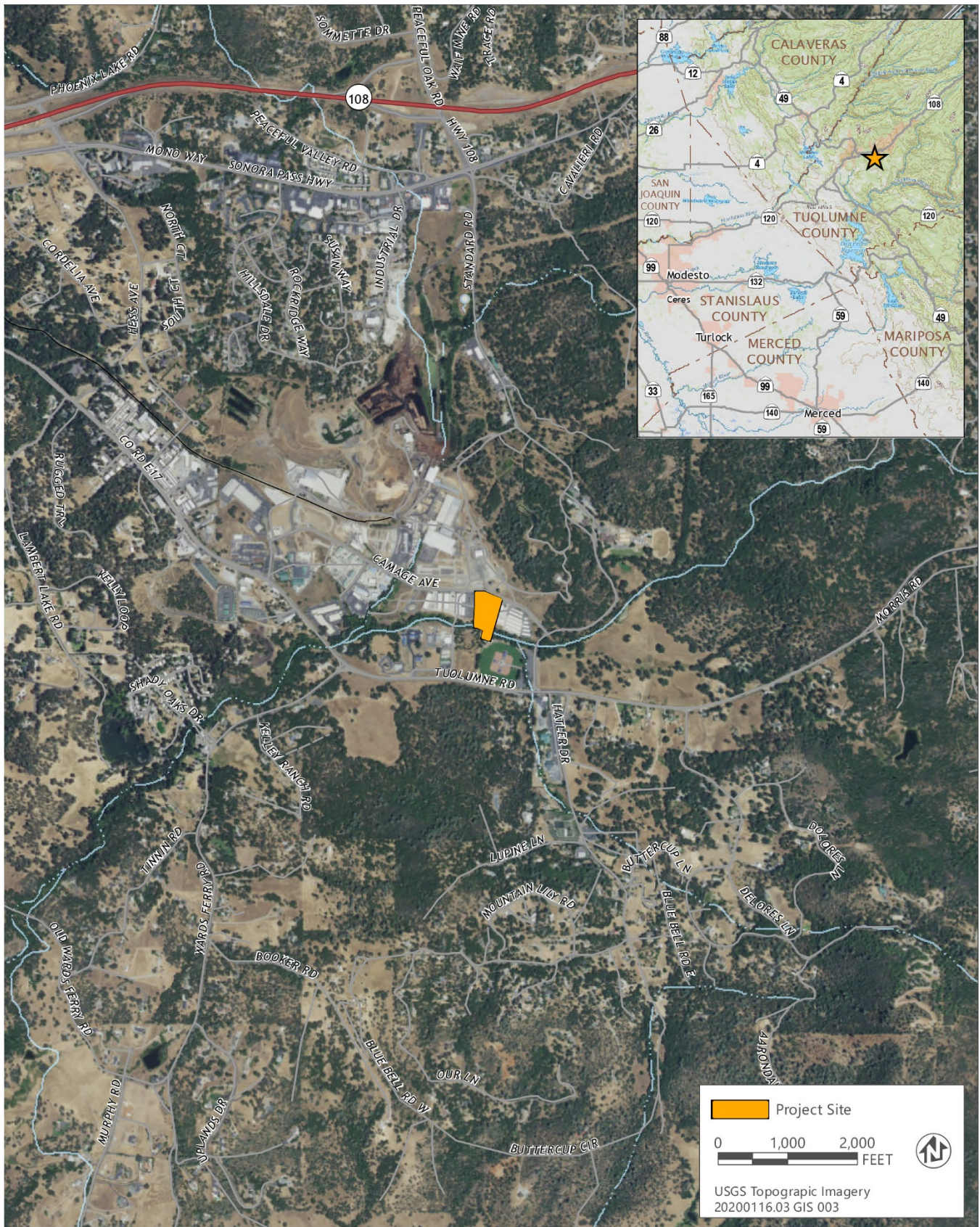
The "Agreement for Shared Stewardship of California's Forest and Rangelands," signed by Governor Newsom and the Forest Service in August 2020, includes a commitment by the federal government to match California's goal of reducing wildfire risks on 500,000 acres of forest land per year. To protect public safety and ecology, experts agree that at least one million acres of California forest and wildlands must be treated annually across jurisdictions. Specifically, through this agreement California and the Forest Service commit to execute the following activities together:

- ▶ Treat one million acres of forest and wildland annually to reduce risk of catastrophic wildfire (building on the state's existing 500,000-acre annual commitment). Relevant goals include:
- ▶ Develop a shared 20-year plan for forest health and vegetation treatment that establishes and coordinates priority projects.
- ▶ Expand use of ecologically sustainable techniques for vegetation treatments such as prescribed fire.
- ▶ Increase pace and scale of forest management by improving ecologically sustainable timber harvest in California and grow jobs by tackling structural obstacles, such as workforce and equipment shortfalls and lack of access to capital.
- ▶ Recycle forest byproducts to avoid burning slash piles.

1.2.2 Project Elements

OVERVIEW

The proposed project would involve the development and operation of a woody biomass pellet manufacturing facility. Structures would include a 4,000 square foot (sf) manufacturing facility, a 5,000-sf covered outdoor storage area, two 100-foot diameter chip storage silos, outdoor equipment (e.g., dryer, battery, bins, chip receivers, furnace), 10,200 sf of flatwork concrete, 3,300 sf of landscaped area, 3,600 sf of pavement, and a 22,000-sf gravel storage yard. This facility would have access to approximately 44,000 bone dry tons (BDT) of biomass annually to produce 29,000 to 31,000 tons of wood pellets for domestic home heating purposes. Wood pellets are densified wood products produced from raw biomass generated by forest thinning and other forestry activities, commercial milling, orchard removals, and urban/industrial tree services. These ancillary activities (e.g., forest thinning, commercial forestry, commercial milling, orchard removal, and urban/industrial tree service) would occur under other agency authorizations, if required, and are not a part of the proposed project. The wood pellets produced by this project would be packaged and sold in 40-pound bags for individual use, and one-ton bulk bags for wholesale distribution to regional and national suppliers that sell to the domestic home heating customer.



Source: Adapted by Ascent in 2021

Figure 1-1 Project Location



Source: adapted by Ascent Environmental in 2021

Figure 1-2 Project Area

FACILITY DESIGN AND OPERATIONS

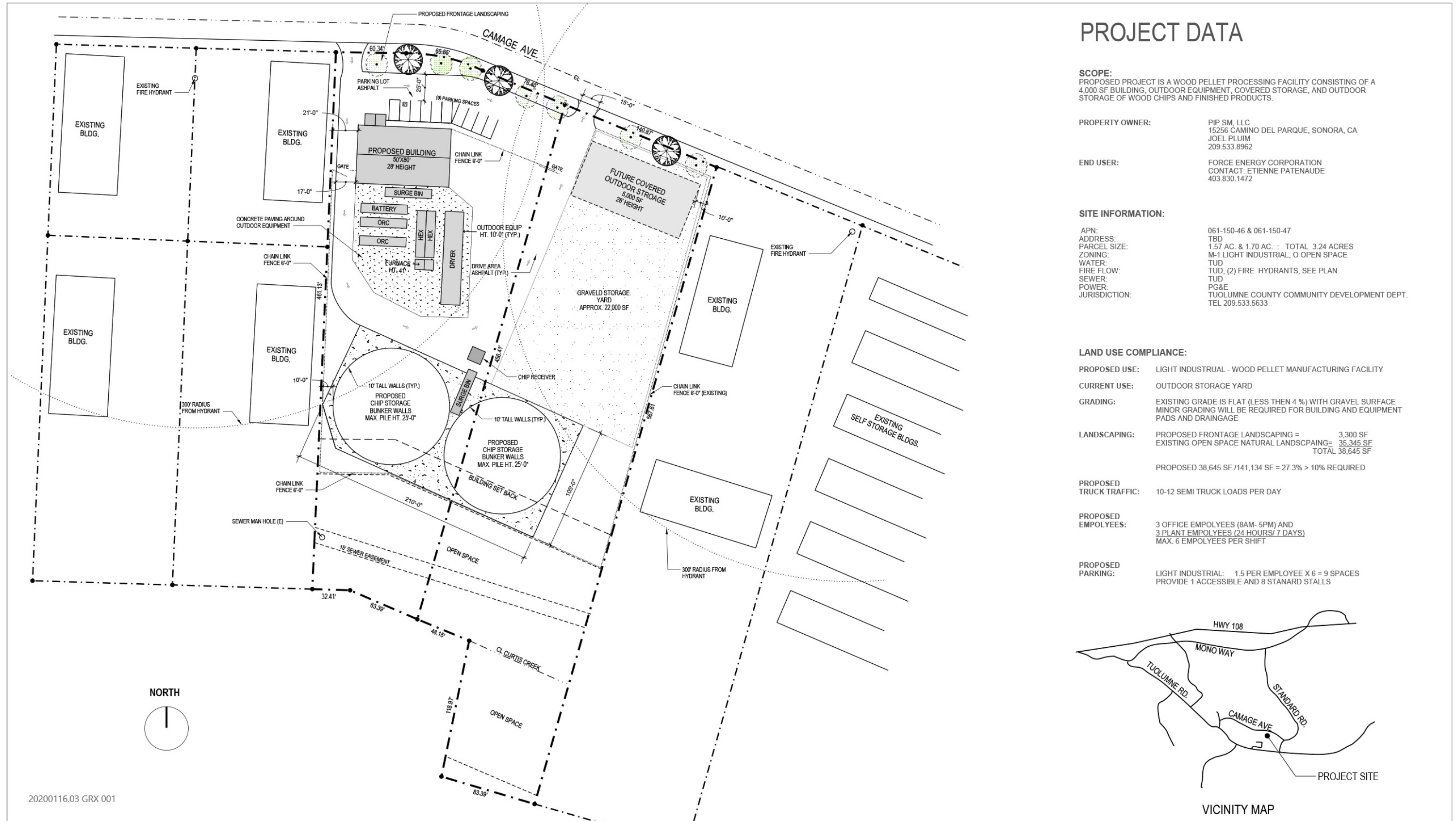
The woody biomass pellet manufacturing facility would be designed to self-generate power and heat by burning a part of the biomass feedstock. An on-site “biomass combined heat and power” (BCHP) unit would use an estimated 9,293 BDT of biomass feedstock annually, sourced from the overall 44,000 BDT used by the project. Heat generated by the BCHP would be used for chip drying, and electrical power generated by the BCHP would be used for pellet manufacturing. Standard electrical power will be used if there is a system failure or emergency. The facility design would meet California Green Building Standards Code (CALGreen Code) (mandatory) standards, including water-efficient fixtures and energy-efficient lighting. The biomass on-site would also be handled via enclosed electrical receivers and conveyers and off-road material handling equipment. The pellet mill would have the ability to run 24 hours per day (up to 8,000 hours per year), 7 days per week, and 333 days per year.

Haul trucks with mounted bins would bring chipped biomass from regional locations within the feedstock supply area (FSA) to the facility for processing five days per week. Chipped biomass consists of small, uniform fragments of woody debris, and can be found in such commonplace uses as ground cover at children’s playgrounds, or organic mulch for gardening, landscaping, and ecosystem restoration. The trucks will dump biomass chips into a large metal container located on a landing area within the project site. A hook truck will lift the collector bin to transport the material to the pellet mill. The hook truck is also capable of pulling a trailer containing a second container of chips. The biomass chips would then be dumped into biomass dryers, using facility-generated heat to dry the chips to the optimal moisture and density range. Dried chips would then be milled through two turnkey pellet mill lines. Overall, the facility would be designed and constructed to process approximately 20 daily biomass chip loads (or 148 wet tons of material). Approximately 700 tons of waste ash would be generated by the project annually and disposed of at a nearby compost facility less than one mile from the project site. Biomass chips, pellets, and ash byproduct are all organically generated, non-toxic substances derived directly from natural forest materials. Chips and pellets are combustible materials by nature, which represents a potential hazard during on-site storage. The project would comply with California Fire Code and Chapter 15.20 of the Tuolumne County Ordinance, “Fire Safety Standards,” including requirements for fire hydrant locations, defensible space, fire flow and other water supply standards, building fire safety requirements.

The woody biomass pellet manufacturing facility would be constructed on an existing 3.27-acre lot with minimal grassy cover. The site is in an industrial business park and zoned for industrial use (M-1 industrial), which is consistent with surrounding zoning and land uses. Construction of the proposed project elements would require site preparation and grading activities. The project would construct a 4,000 square foot (sf) manufacturing facility, a 5,000-sf covered outdoor storage area, two 100-foot diameter chip storage silos, outdoor equipment (e.g., dryer, battery, bins, chip receivers, furnace), 10,200 sf of flatwork concrete, 3,300 sf of landscaped area, 3,600 sf of pavement, and a 22,000-sf gravel storage yard (Figure 1-3). Tuolumne Bioenergy, Inc. (TBI), the project proponent, expects the outdoor equipment to come preassembled. It will require cranes to place equipment (TBI 2021). Construction is scheduled to begin in February 2022.

WORKFORCE

The project would create around 26 full-time hourly jobs. At least 51 percent of the new jobs would meet the definition of “targeted income” for low-moderate income people under the Community Development Block Grant National Disaster Resiliency program. Mother Lode Job Training would assist with the recruitment and training of employees and documentation of the jobs.



PROJECT DATA

SCOPE:
 PROPOSED PROJECT IS A WOOD PELLET PROCESSING FACILITY CONSISTING OF A 4,000 SF BUILDING, OUTDOOR EQUIPMENT, COVERED STORAGE, AND OUTDOOR STORAGE OF WOOD CHIPS AND FINISHED PRODUCTS.

PROPERTY OWNER: PIP SM, LLC
 15256 CAMINO DEL PARQUE, SONORA, CA
 JOEL PLUIM
 209.533.8962

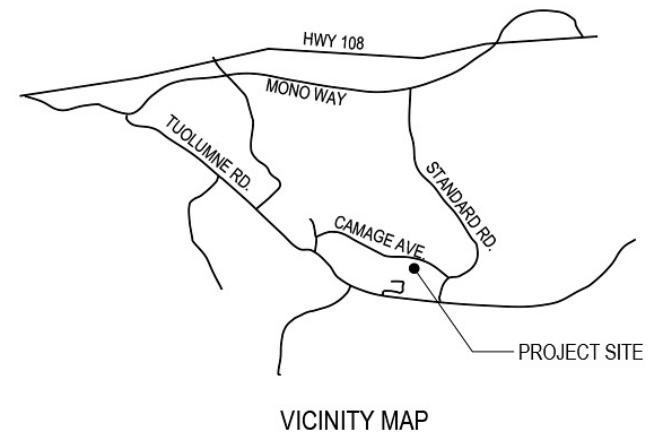
END USER: FORCE ENERGY CORPORATION
 CONTACT: ETIENNE PATENAUDE
 403.830.1472

SITE INFORMATION:

APN: 061-150-46 & 061-150-47
 ADDRESS: TBD
 PARCEL SIZE: 1.57 AC. & 1.70 AC. : TOTAL 3.24 ACRES
 ZONING: M-1 LIGHT INDUSTRIAL, O OPEN SPACE
 WATER: TUD
 FIRE FLOW: TUD, (2) FIRE HYDRANTS, SEE PLAN
 SEWER: TUD
 POWER: PG&E
 JURISDICTION: TUOLUMNE COUNTY COMMUNITY DEVELOPMENT DEPT.
 TEL 209.533.5633

LAND USE COMPLIANCE:

PROPOSED USE: LIGHT INDUSTRIAL - WOOD PELLET MANUFACTURING FACILITY
CURRENT USE: OUTDOOR STORAGE YARD
GRADING: EXISTING GRADE IS FLAT (LESS THEN 4 %) WITH GRAVEL SURFACE
 MINOR GRADING WILL BE REQUIRED FOR BUILDING AND EQUIPMENT
 PADS AND DRAINAGE
LANDSCAPING: PROPOSED FRONTAGE LANDSCAPING = 3,300 SF
 EXISTING OPEN SPACE NATURAL LANDSCAPING= 35,345 SF
 TOTAL 38,645 SF
 PROPOSED 38,645 SF /141,134 SF = 27.3% > 10% REQUIRED
PROPOSED TRUCK TRAFFIC: 10-12 SEMI TRUCK LOADS PER DAY
PROPOSED EMPLOYEES: 3 OFFICE EMPLOYEES (8AM- 5PM) AND
 3 PLANT EMPLOYEES (24 HOURS/ 7 DAYS)
 MAX. 6 EMPLOYEES PER SHIFT
PROPOSED PARKING: LIGHT INDUSTRIAL: 1.5 PER EMPLOYEE X 6 = 9 SPACES
 PROVIDE 1 ACCESSIBLE AND 8 STANARD STALLS



20200116.03 GRX 001

Source: adapted by Ascent Environmental in 2021

Figure 1-3 Site Plan

PROJECT CONSTRUCTION

Construction of the woody biomass pellet manufacturing facility would take approximately two to three months. Construction would be carried out in two parts; first, connection to existing utilities, grading, and paving; and secondly, construction of a prefabricated building and open storage. Installation of equipment for the pellet mill, BCHP, and manufacturing components would occur at various stages as appropriate throughout site preparation and building construction. A small crew of two to four people would carry out grading and preparation of the site. A crew of six to eight people would be used to construct the building and storage areas, and lastly, plant equipment would be installed at various stages by one to three people.

During site grading and preparation, stormwater infrastructure would be installed and maintained in compliance with the grading and drainage plan approved by Tuolumne County, as required by the building permit. The grading plan would include an erosion control plan outlining best management practices (BMPs) required during the construction process. The project site is located in an industrial park with a retention pond that collects stormwater flows for filtration; therefore, on-site stormwater retention is not required for the project. The site would be surfaced and drained using low-slope concrete valley gutters and pavement, following the natural drainage pattern of the site from north to south. At the southern edge of the developed site, vegetated swales would convey site runoff and discharge into Curtis Creek. Consequently, the project would require compliance with National Pollutant Discharge Elimination System (NPDES) requirements, including preparing a Storm Water Pollution Prevention Plan (SWPPP).

BIOMASS FEEDSTOCK SUPPLY

The primary source of biomass for the project would consist of "slash" generated through forest fuels treatment and thinning activities. Slash refers to the unmarketable limbs and branches of larger trees, as well as small understory trees and shrubs remaining following forest fuels treatments and thinning activities. The low market value of slash results in accumulated piles of this biomass on the forest floor, where it remains until it can be burned or removed. It is expected that in future years forest thinning and fuels reduction activities will be carried out at an accelerated rate on forested lands, both locally and regionally to the project site, to reduce the risk of catastrophic wildfire. With the accelerating pace of such activities, more biomass is expected to be generated, including slash, which will pose a challenge for biomass management and disposal. A secondary biomass source could include agricultural waste trees and biomass from orchards in the San Joaquin Valley.

Under the project, biomass would be collected and chipped from existing and future slash piles generated by forest fuel reduction and other projects from within nearby forested areas identified as high fire hazard severity. Forest fuel reduction projects and other biomass harvesting projects would be planned, conducted, and reviewed per applicable environmental requirements by other agencies and organizations, and would occur regardless of whether this project is approved.

The project would involve accessing and chipping previously generated slash piles with a mobile chipper-forwarder¹ at various sites where thinning activities have occurred. It is assumed that slash piles would be generated under prior-approved projects, and therefore would have undergone prior environmental review. Slash piles would be accessed at landing areas that have been prepared under separate forest fuel management projects. Resource protection measures and best management practices, including pre-implementation surveys and avoidance of sensitive resources and site-specific erosion control measures identified in the individual fuel reduction project environmental documents would address site specific environmental conditions at the landing sites. Generation and storage of slash is not a part of the proposed project. Slash generated in accordance with other discretionary approvals would be chipped and loaded into bins mounted on haul trucks for transport to the project site five days per week, where the material would then be turned into marketable wood pellets. The biomass material utilized by the proposed project would likely not otherwise be profitable for existing biomass facilities due to the high cost of transport and the low market value of the material.

¹ A chipper-forwarder is an eight-wheel tractor that can load large amounts of biomass into a mounted bin.

1.3 STATEMENT OF PURPOSE AND NEED FOR THE PROPOSAL

[40 CFR 1508.9(b)]

The proposed project is being funded by a Community Development Block Grant National Disaster Resilience (NDR) grant award. The approximate award of \$70 million dollars of CDBG-NDR funds was made from Department of Housing and Urban Development (HUD) to California Department of Housing and Community Development (HCD). This award to HCD was done based on a HUD competitive funding process under the National Disaster Resilience Competition (NDRC). In HCD's application for funding, it proposed to use approximately \$20 million in NDR funding for development of Biomass Utilization Facility (BUF) projects. The HUD funding was awarded based on requirement that activities funded would support recovery efforts by providing mitigation and increased resilience from future disasters such as the Rim Fire.

HCD's application focused on addressing unmet recovery needs following the Rim Fire of 2013 and providing NDR funds for long-term investments to support sustainable forest management practices and economic development opportunities. During the application process, HCD and its partners conducted extensive stakeholder outreach to identify community needs. In this process, stakeholders identified the following challenges to maintaining and restoring resilient communities and watersheds:

- ▶ inadequate resources and trained personnel to remove biomass from the forest, both in burned and adjacent areas; and
- ▶ lack of facilities to process biomass that is removed; and
- ▶ lack of community resources to support education, training, and economic diversification.

PURPOSE OF BIOMASS UTILIZATION FACILITY PROJECTS

Prevention of wildfires are usually limited by budgets, the availability of a trained work force, and adequate infrastructure such as sawmills and bioenergy plants.

To move forward with BUF project development and achieve the purpose and identified goals in the NDRC application funded by HUD, HCD and the Rural Community Assistance Corporation (RCAC) entered a NDR grant agreement. Under this agreement, RCAC will act on HCD's behalf to offer financial assistance to eligible BUF projects that meet the NDRC application goals and community needs.

The purpose of this project is to improve forest health and resiliency by providing alternatives to pile-burning of forest biomass, reduce greenhouse gas emissions, create employment opportunities for residents, and supplement existing businesses in Tuolumne County.

NEED FOR THE PROJECT

In 2019, the Beck Group feasibility study identified sufficient biomass feedstock within an approximate 40-mile radius of Sonora in the local forests to support one or more small BUF projects. This buildup of biomass feedstock increases the risk of large wildfires. Currently there are multiple initiatives from local, state and federal agencies to reduce biomass and thus reduce the risk of catastrophic wildfire and improve forest health and resiliency. These initiatives will generate millions of tons of biomass regionally in future years that will require management of this material (a few regional and statewide initiatives are discussed below in Section 1.4, "Existing Conditions and Trends.")

Despite the presence of some existing facilities to utilize wood waste in Tuolumne County, currently much of the unmarketable material from these forest treatments will be burned in place in slash piles, which will contribute to reduced air quality in the short term and an increase in greenhouse gas emissions in the long term. A beneficial use of this biomass material would be to use it in industries and products that would not be feasible when using valuable raw timber material. The proposed project would create a market for otherwise unmarketable biomass, removing it as a source of fuel from forests, and offsetting future greenhouse gas emissions generated if the material is burned in place.

The United States Forest Service (USFS) and other landowners are challenged by limited budgets for biomass removal. During active fire seasons, funding for forest management and fire prevention may be limiting, thus delaying or preventing forest health activities. As these activities are delayed, more fuel builds up and the risk of severe fire increases. Lack of nearby biomass energy or wood products facilities further weakens the demand for biomass removal. This accumulation of biomass becomes fuel for fires and increases susceptibility to pest invasions, inherently decreasing forest resilience in the face of climate change and under threat of extreme wildfire. Furthermore, due to a lack of facilities to absorb wood waste, US Forest Service staff and private forestland owners spend considerable time and effort burning piles of forest waste in the winter and spring.

OTHER GOALS AND OBJECTIVES

Recent history in Tuolumne County has seen a decrease in economic activity from industries utilizing natural resources. Like most rural areas, the county economics has turned to tourism and service sector industries. The Rim Fire and subsequent fires in the area have demonstrated the vulnerability of Tuolumne County's tourism and hospitality industries. In addition to providing a beneficial use for material that would otherwise be burned in the forest, this project seeks to diversify Tuolumne County's economy by creating businesses that can process biomass. These new biomass businesses may facilitate use of biomass by other existing biomass business in the county, thus supplementing, complementing and creating synergy for the county's biomass industry.

The BUF projects will also create jobs for local residents and set aside half of the new jobs for low-income workers. RCAC is partnering with Mother Lode Job Training agency to assist with maximizing job benefits to local residents and local low-income persons. This is an opportunity for Mother Lode to increase job training efforts in the local community and build employment capacity for other forest related businesses that could complement the BUF project operations.

1.4 EXISTING CONDITIONS AND TRENDS

Describe the existing conditions of the project area and its surroundings, and trends likely to continue in the absence of the project [24 CFR 58.40(a)]

1.4.1 Site Conditions

The project site consists of a 3.27-acre leased property comprised of two vacant parcels in an industrial business park in Sonora, CA. The parcels are bounded on the north by Camage Avenue, on the south by Curtis Creek and oak woodlands, and to the west and east by developed industrial use parcels (Figures 1-1 and 1-2). The proposed project site is zoned overall for industrial use (M-1 industrial), which is consistent with surrounding zoning and land uses (Figure 1-4). The project site is mostly graded, the northern 2.2 acres having been previously developed, and the southern approximately 1.1 acres of the project site characterized by annual grasses and forbs and riparian mixed hardwood associated with Curtis Creek. (Figure 1-5).

Developed portions of the project site are graded and covered in coarse gravel. Remnant building materials (i.e., cement blocks with rebar) are present in one area in the eastern half of the developed portion of the project site. A patch of dry, potentially dead willows is present in the middle of the developed portion of the project site; they are located approximately 180 feet north of the riparian corridor associated with Curtis Creek, and based on review of historical imagery, were established in uplands and have not previously been contiguous with the riparian woodlands of Curtis Creek. The developed portion of the project site is consistent with the surrounding landscape within the industrial park.

The southern part of the project site is zoned open space and therefore provides a buffer between Curtis Creek on the southern property boundary and potential development on the site. The upland southern half of the project site contains approximately 0.6 acre of annual grasses and forbs, which is habitat is dominated by nonnative species including thistle, and nonnative grasses including brome, and oat, and barbed goatgrass. A large pile of logs is present on the edge of this habitat and the developed portion of the project site. This habitat appears routinely disturbed (e.g., trampled, mowed), and does not provide high-quality natural habitat. Approximately 0.5 acre of

riparian mixed hardwood is present in the very southernmost portion of the project site immediately adjacent to Curtis Creek. Canopy tree species in this habitat include valley oak, Oregon ash, and box elder; understory tree species include willow, big leaf maple, and immature canopy trees; shrub and herbaceous species in the understory include Himalayan blackberry and mugwort. Curtis Creek is a small, slow-moving, perennial stream that bounds the property on the south, and would be considered a water of the United States and a water of the state.

If the project were not approved, it is expected that the project site would be leased and developed for another industrial use, consistent with zoning for these parcels and adjoining land uses.

1.4.2 Feedstock Supply Trends

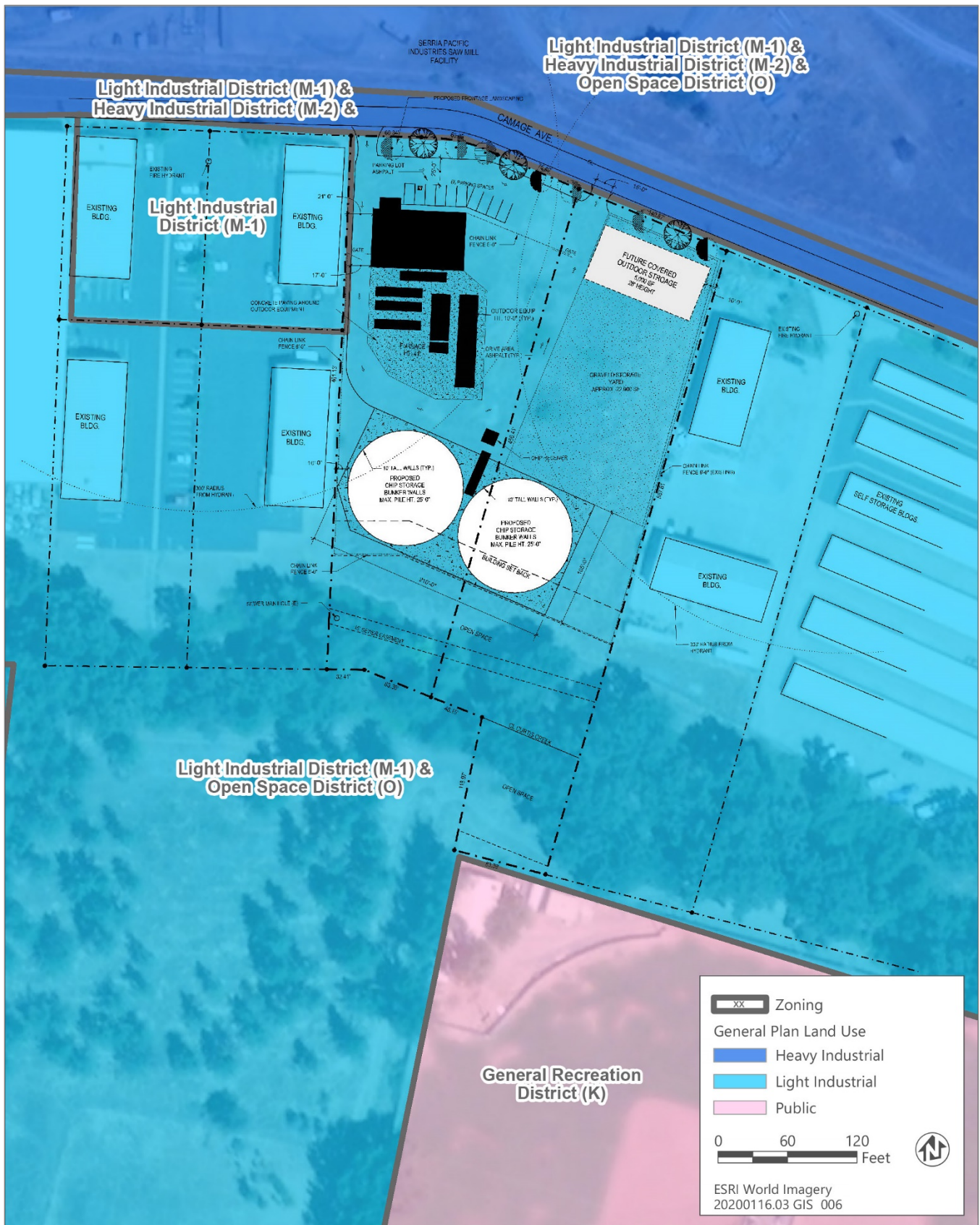
Forest fuels treatments and forest thinning is accelerating in California in response to the increasing threat of catastrophic wildfires, and biomass material generated by these activities is increasing rapidly. Ongoing management of the millions of tons of woody biomass will be necessary in the future. Regional and statewide initiatives that are expected to support the proposed project by providing feedstock supply include the following projects that are anticipated to provide feedstock to the proposed project:

- ▶ At the local level in Tuolumne County, a group called Yosemite Stanislaus Solutions (YSS) is working to assist the Forest Service, Bureau of Land Management, and Yosemite National Park and private land managers in achieving healthy forests and watersheds and in developing recovery and restoration plans for the 2013 Rim Fire and other areas in need of rehabilitation. This initiative is working to identify priority areas for forest fuels reduction and treatment activities, among many of its restoration activities.
- ▶ The Forest Service is currently in the process of evaluating the Social and Ecological Resilience Across the Landscape (SERAL) project, which has been designed to improve the ecological health of a large swath of the Stanislaus National Forest. The SERAL project area encompasses approximately 117,000 acres located within the YSS collaborative area, south and east of the North Fork Stanislaus River and north and west of Highway 108, with portions located on the Calaveras, Mi-Wok, and Summit Ranger districts. The SERAL proposal was developed with the objective of designing vegetation treatments that benefit the environment, the economy, and the community. The initiative itself would include the use of prescribed fire, hand thinning conifers, grinding, mechanical forest thinning treatments, non-native invasive weed control and limited salvage operations. This area, adjacent to Sonora, has not burned in many years and is considered a serious wildfire risk. The Stanislaus National Forest released a 92,000-acre management proposal in 2020 which represents a significant increase in its forest management scope.

1.4.3 Funding Information

Loan/Grant Number	HUD Program	Estimated Total HUD Funded Amount
B-13-DS-06-0001	National Disaster Resilience Competition CDBG-NDR	\$3,500,000

Estimated Total Project Cost (HUD and non-HUD Funds) [24 CFR 58.32(d)]: \$12,895,000



Source: Data downloaded from Tuolumne County in 2021

Figure 1-4 Land Use and Zoning



Source: Mapped by Ascent in 2021

Figure 1-5 Land Cover

2 COMPLIANCE WITH LAWS AND AUTHORITIES

[24 CFR 50.4, 58.5, and 58.6]

In accordance with HUD and HCD guidance and recommendations, the following section describes how the proposed action complies or conforms to adopted statutes, executive orders, or regulations. Credible, traceable, and supportive source documentation is provided where necessary. Relevant documentation and sources used to determine compliance are included in Appendices A, B, C, and D.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance Determinations
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 and 58.6		
Airport Hazards 24 CFR Part 51 Subpart D	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The nearest airport to the project, Columbia Airport, is located approximately 7 miles northwest of the project site. A helipad supporting the Sonora Regional Medical Center Emergency Room is located approximately 3.3 miles northwest of the project site. The project would be located at a distance far enough from the airstrip that it does not encroach in any airport Runway Clear or Accident Potential Zones and would not create a unique safety hazard for people working within the project site. See Appendix A.
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The Coastal Barrier Resources System (CBRS) designates coastal land as ineligible for direct and indirect federal expenditures that may result in development of fragile coastal barrier ecosystems. This project is located in a state that does not contain CBRS units and is not located in proximity to any coastal area. The project would not conflict with the Coastal Barrier Resources Act. See Appendix A
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The Federal Emergency Management Agency (FEMA) publishes Flood Insurance Rate Maps (FIRM) delineating flood hazard zones for communities. Most of the project site, including areas where new structures would be sited and grading would occur is located in an area identified on the FEMA FIRM Panel Number 06109C0854C (dated April 16, 2009) in "Zone X," an area of very low flood hazard (see Appendix A). The project would connect to an existing sewer line in an area of the site identified to be within the "Zone A" 100-year flood risk area (one percent annual chance of flooding) of Curtis Creek (see Appendix A). HUD is required, under 24 CFR 55.20 Subpart C, Procedures for Making Determinations on Floodplain Management, to carry out an Eight Step Process for a proposed activity in a 100-year floodplain (see Appendix B). Connection to the sewer line would not create any new structures, alter existing impervious surfaces, nor change floodplain capacity or flood flows in that area. Work activities required to be carried out to connect to the sewer line would consist of temporary excavation for access to the sewer connection point and subsequent replacement of excavated materials. Work would be carried out during dry conditions; therefore, the temporary excavation would not affect flood conditions or floodplain characteristics. The project would not affect habitable structures, nor locate any people or habitable structures within any areas prone to flood. The

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance Determinations
		project would not result in increased flood risk to people or property for the above reasons and would not alter impervious coverage in a manner that would lead to increased flood flows or alter the existing floodplain.
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 & 58.5		
<p>Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>To ensure the project would not exceed the thresholds required for a conformity finding under the Clean Air Act, emissions modeling was conducted for construction and operational activities associated with the pellet manufacturing facility.</p> <p>Implementation of the project would result in a net reduction in all four criteria air pollutants of concern under the Clean Air Act (reactive organic gases [ROG], nitrous oxide [NO_x], particulate matter with diameters generally 10 micrometers and smaller [PM₁₀], carbon monoxide [CO]). This is primarily because the open burning of biomass piles generates more emissions than the combustion of biomass at the pellet mill and other supporting activities. Under existing conditions, it is assumed that the biomass that would otherwise be used by the project would be piled and burned on site at fuels treatment locations. As part of this project, the biomass would be utilized as an energy source both by the pellet mill as dried biomass and by the end consumers as wood pellets. Thus, the effect of utilizing biomass from this site on the project would result in a net decrease in criteria air pollutant emissions because pile burning of this biomass would be avoided, and project operations would not exceed TCAPCD significance thresholds and de minimis thresholds.</p> <p>Toxic air contaminant (TAC) emission concentrations from the pellet mill operations would not exceed San Joaquin Valley Air Pollution Control District's (SJVACPD) screening factors at any receptor locations within 2,000 meters (1.2 miles) of the project boundary. In the absence of a health risk screening tool from the TCAPCD, to gauge the necessity of preparing a health risk assessment (HRA), Ascent used a screening tool: the SJVACPD Prioritization Calculator. Although the calculator was developed for projects within the SJVACPD, the project is located adjacent to the SJVACPD and shares similar meteorological conditions due to its location close to the Central Valley. Thus, the calculator is appropriate to use for the proposed project. TAC exposure risks are largely due to diesel PM emissions and to a much lesser extent the SO₂ emissions from the CHP system. In fact, SO₂ health impacts are only related to acute effects, so the maximum scores shown in Table 16 would remain the same without the consideration of SO₂ emissions from the BHP system. Regardless of the distribution of health risk origins, the project meets the screening criteria of the prioritization calculator and health risks associated with TAC emissions from the project site would be less than significant.</p> <p>Lastly, the Mountain Counties Air Basin (MCAB) is in attainment or unclassified for CO, NO_x, PM_{2.5}, PM₁₀, SO_x, sulfates, and lead for both the CAAQS and NAAQS; in attainment for ozone for the CAAQS; but in marginal non-attainment for ozone for the NAAQS, of</p>

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance Determinations
		<p>which ROG and NOx are precursors. The project would result in a net reduction in both ROG and NOx emissions in the MCAB. Thus, the project would not result in any increase of any criteria pollutant for which the project region is in nonattainment but would be beneficial with regard to emissions of ozone precursors.</p> <p>See Appendix C for the complete discussion and details of the emissions modeling.</p>
<p>Coastal Zone Management Coastal Zone Management Act, sections 307(c) & (d)</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>The project is not subject to the Coastal Zone Management Act. The project location is approximately 110 miles from the coast. No mitigation is required. See Appendix A.</p>
<p>Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2)</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>NEPAssist was used to conduct an initial search of potential hazardous waste sites in proximity to the project. The tool searches inventories that contain sites regulated by Resource Conservation and Recovery Act (RCRA); air pollution data (ICIS-AIR); water dischargers covered by the National Pollutant Discharge Elimination System (NPDES); the Toxic Release Inventory (TRI), which contains information on toxic chemical releases and waste management reported by industries; and Superfund sites covered by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (See Appendix A).</p> <p>Two sites known to handle hazardous waste were located within 0.25 miles of the proposed project. One facility is a Waste Management recycling center and business office with an NDPEs discharge permit. The site is located at 14959 Camage Avenue. No record of specific effluents or site violations were found, and no violations were recorded. Potential for contamination of the project site from this facility is anticipated to be low. Paint and supply store known to handle hazardous materials is located at 18484 Striker Ct. No record of violations, spills, or soil contamination are recorded for this site (See Appendix A). Potential for contamination from is anticipated to be low.</p> <p>The Envirostar database maintained by California’s Department of Toxic Substance was consulted to identify hazardous waste and contaminated sites within one mile of the project site. Envirostar draws data from DTS’ regulatory database, as well as on the information contained in the State Water Resources Control Board’s GeoTracker, and the California Environmental Protection Agency’s Office of Environmental Health Hazard Assessment’s CalEnviroScreen tool. No sites were identified within 0.25 mile of the project site using this tool (See Appendix A).</p> <p>Anticipated hazardous substances and hazardous waste involved in project implementation and operation of the project may include lubricating oils and hydraulic fluids related to maintenance and upkeep of machinery involved in pellet manufacturing. Maintenance of machinery may require occasional handling and transport of hazardous materials. Storage, transportation, and use of hazardous materials are regulated by several federal, state, and local agencies that address hazards and potential hazards to</p>

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance Determinations
		<p>employees. These include the regulations of the following agencies: Occupational Safety and Hazard Administration (OSHA), U.S. Department of Transportation (USDOT), California Occupational Safety and Hazard Administration (Cal/OSHA), department of Toxic Substance Control (DTSC), the State Water Quality Control Board (SWRCB), California Highway Patrol (CHP), California Department of Transportation (Caltrans), and Tuolumne County Office of Emergency Services (TCOES). All hazardous waste would be stored and handled in compliance with applicable federal and state laws and regulations. These regulations are extensive and govern the handling of all hazardous materials on site from cradle to grave. Agencies routinely conduct compliance checks to ensure proper handling, storage, and disposal of these materials.</p> <p>The project would not require substantial grading activities; however, soil disturbing activities would occur. There is no evidence to suggest hazardous substances and contaminated materials would be encountered at the project site during construction, but in the event they were, they would be removed and disposed in accordance with California Health and Safety Code Chapter 6.5, Division 20, California Administration Code, Title 22, 29 Code of Federal Regulation 1910.120, Tuolumne County Community Resources Agency Division of Building and Safety, and current Uniform Building Code.</p> <p>The project will involve handling, processing, and storage of flammable materials and ash byproduct. These materials are not regulated pursuant to 24 CFR Part 50.3(i) & 58.5(i)(2). Further discussion relating to the environmental effects of these project materials is included below under Compliance Factor, "Explosive and Flammable Hazards" and under Environmental Assessment Factor, "Hazards and Nuisances."</p> <p>No mitigation is required.</p>
<p>Endangered Species Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>A Biological Evaluation was conducted for this project and the complete report is included in Appendix D. To conduct the constraints analysis, a reconnaissance-level survey was conducted on May 27, 2021, by a qualified wildlife biologist. In addition, information on sensitive biological resources previously recorded at the project site was collected through review/search of the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC); the California Natural Diversity Database (CNDDDB); USFWS National Wetlands Inventory; the U.S. Department of Agriculture (USDA) Web Soil Survey, and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants.</p> <p>Based on the data review, five federally listed plant species (Chinese Camp brodiaea [<i>Brodiaea pallida</i>], Colusa grass [<i>Neostapfia colusana</i>], Layne's ragwort [<i>Packera layneae</i>], Hartweg's golden sunburst [<i>Pseudobahia bahiifolia</i>], and Red Hills vervain [<i>Verbena californica</i>]) and seven federally listed wildlife species (California red-legged frog [<i>Rana draytonii</i>], Delta smelt [<i>Hypomesus transpacificus</i>], green sturgeon [<i>Acipenser medirostris</i>], steelhead – Central Valley DPS [<i>Oncorhynchus mykiss irideus</i> pop. 11], valley elderberry longhorn beetle [<i>Desmocerus californicus dimorphus</i>], vernal pool</p>

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance Determinations
		<p>fairy shrimp [<i>Branchinecta lynchi</i>], and vernal pool tadpole shrimp [<i>Lepidurus packardii</i>) have potential to occur on the project site.</p> <p>Based on the site visit and verification of vegetation communities and soils present on the project site, habitat suitable for these species is not present for the five federally listed plant species, California red-legged frog, valley elderberry longhorn beetle, vernal pool fairy shrimp, or vernal pool tadpole shrimp. The project site is outside of the current known range of Delta smelt, green sturgeon, and steelhead – Central Valley DPS. The project site is also not within designated critical habitat for any federally listed species. The results of the reconnaissance-level survey for biological resources and complete details of site biological resources are included in Appendix D. Mitigation #3.</p>
<p>Explosive and Flammable Hazards 24 CFR Part 51 Subpart C</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>The project site consists of two vacant parcels within an industrially zoned area that are not currently developed. Adjacent land uses include offices for an energy and flooring company, and storage space. There are no residential land uses, schools, or hospitals within 1,000 feet of the project area. Nearby land uses include an outdoor baseball park facility (Standard Park) and a community service facility, Interfaith Community Social Services.</p> <p>No fuel tanks, other flammable liquids, or explosive materials regulated pursuant to 24 CFR Part 51 Subpart C would be stored on site. However, proposed project construction and operations would involve use, transport, and storage of flammable materials. The pellet manufacturing facility would involve storage of dry biomass chips, which are small wood fragments generated by the chipping of woody forest material and are a combustible material. The project would also generate a combustible product, woody biomass pellets, for market. The project would also involve operation of heat-generating components including a battery, a biomass dryer, an explosion-proof heater (HEX), and a furnace. Project implementation would place office buildings and other facility components on the project site, adjacent to potentially flammable hazards, and within 1,000 feet of the abovementioned sensitive land uses (Standard Park and Interfaith Community Social Services).</p> <p>The proposed project would be designed and constructed to accommodate the daily capacity of the field chipper and hauling equipment. The volume of chips would vary with the seasonality of forest biomass and source recovery. Chips would be hauled and, upon arrival on site, would be deposited directly into specially designed containers intended for biomass storage. The maximum amount of wood chip biomass that would be stored on site is 4,848 cubic yards. This volume of material represents approximately two weeks of production and is less than the allowable volume of permissible storage in the California Fire Code. The facility product—pellets—would be bagged, stacked on pallets, covered with a shrink-wrap shell and stored on site. Up to 2,800 tons may be stored on site but the exact amount would vary with production and shipment to retailers. They would be stored in open storage.</p>

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance Determinations
		<p>Potential hazards relating to construction and project operation activities would be addressed through compliance with the 2019 California Fire Code and Chapter 15.20 of the Tuolumne County Ordinance, "Fire Safety Standards," including requirements for fire hydrant locations, defensible space, fire flow and other water supply standards, and building fire safety requirements. Buildings would also meet county requirements for fire sprinkler and fire alarm systems.</p> <p>Maintenance of operational equipment on site would be carried according to manufacturer requirements, and handling of flammable materials would consistent with existing regulations to reduce the risk of fire. Furthermore, project activities would be subject to California Health and Safety Code, Chapter 6.5, Division 20; California Administration Code, Title 22, relating to Handling, Storage, and Treatment of Hazardous Materials; and 29 Code of Federal Regulation 1910.120 relating to Hazardous Waste Operation Safety Training. Safety training includes hazards related to flammable substances. See Appendix A. No mitigation is required.</p>
<p>Farmland Protection Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658</p>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<p>Available data for designated Important Farmland is provided by the California Department of Conservation. There is no designated farmland located within the vicinity of the town of Standard in Tuolumne County, including within the vicinity of the project site (see Appendix A). Therefore, there are no areas designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance within the project site or project vicinity. Further, the project site is not currently designated or zoned for farmland uses. No farmland is located adjacent to the project site. The project would not convert farmland to a nonagricultural use. No mitigation is required.</p>
<p>Floodplain Management Executive Order 11988, particularly section 2(a); 24 CFR Part 55</p>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<p>Executive Order 11988 requires federal agencies and projects funded by federal agencies to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of flood plains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative.</p> <p>The Federal Emergency Management Agency (FEMA) publishes Flood Insurance Rate Maps (FIRM) delineating flood hazard zones for communities. Most of the project site, including areas where new structures would be sited and grading would occur is located in an area identified on the FEMA FIRM Panel Number 06109C0854C (dated April 16, 2009) in "Zone X," an area of very low flood hazard (see Appendix A). Therefore, there would be no impact to floodplain management in these areas.</p> <p>The project would connect to an existing sewer line within areas on the parcels identified to be within the "Zone A" 100-year flood risk area (one percent annual chance of flooding) of Curtis Creek.</p> <p>HUD is required, under 24 CFR 55.20 Subpart C Procedures for Making Determinations on Floodplain Management, to carry out an Eight Step Process for a proposed activity in a 100-year floodplain (see Appendix B). Connection to the sewer line would not alter</p>

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance Determinations
		<p>existing impervious area or flood flows in that area. Work activities required to be carried out to connect to the sewer line would consist of temporary excavation for access and subsequent replacement of excavated materials. Work would be carried out during dry conditions; therefore, it is not expected that the temporary excavation would impact flood conditions or floodplain characteristics.</p> <p>The project would not affect habitable structures, nor locate any people or habitable structures within any areas prone to flood. The project would not result in increased flood risk to people or property for these reasons and because it would not alter pervious coverage in a manner that would lead to increased flood flows or alter the existing floodplain (See Appendix A for FEMA Floodplain Map). No mitigation is required.</p>
<p>Historic Preservation National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>No buildings or other structures exist on the site. Project activities would not result in impacts to existing historical structures. A historic and cultural resources evaluation was performed for the project site. This evaluation included a cultural literature, Sacred Lands File and paleontological records searches, an intensive-level pedestrian survey of the Area of Potential Effects (APE), and a project effects assessment consistent with Section 106 of the National Historic Preservation. The evaluation determined that no historic properties, historic resources, or other cultural resources exist within the APE. The State Historic Preservation Officer concurred with this finding (see Appendix A).</p> <p>In the unlikely event of discovery of historical or archaeological resources during project construction, mitigation measures would be required in conformance with the National Historic Preservation Act of 1966, Sections 106 and 110, and 36 CFR 800. Implementation of Mitigation Measures 1 and 2 would ensure that if cultural artifacts, including stones, bones, shells, or human remains were discovered during construction activities, construction would stop immediately, and County personnel would be notified. The County would ensure proper procedures are followed to handle the identified cultural material or remains before continuation of project construction. Implementation of Mitigation Measures 1 and 2 would ensure that no significant impacts to cultural artifacts or human remains occur during construction activities.</p>
<p>Noise Abatement and Control Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>As a pellet manufacturing facility, the project is not a HUD noise-sensitive use, so no noise impacts from the surrounding area on the project were evaluated. However, as a manufacturing facility, this project will generate noise that will impact the local community and these project noise impacts have been evaluated. HUD does not address construction noise but does encourage the use of quieter construction equipment and methods in population centers. In addition, HUD noise regulations are intended to protect new residential properties from being placed in areas that could result in excessive noise exposure.</p> <p>Project operations could occur 24 hours per day 7 days a week. However, operations are expected to occur for a total of</p>

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance Determinations
		<p>approximately 8,000 hours per year. The BCHP unit would produce more noise than other elements of the facility. It has a noise level of 65 dB measured at 33 feet (Patenaude 2021). Because the project site is zoned for light industrial use, there are no applicable local operational noise standards. This noise level (65 dB) is roughly equivalent to the sound of a normal conversation. This noise level would generally be consistent with existing noise levels from industrial uses in the project vicinity. Potential noise sensitive receptors include facilities such as schools, residences, libraries, hospitals, and other care facilities. The nearest receptor sensitive to noise is a day care facility located approximately 900 feet southwest of the project area. Given that noise generated by the loudest equipment on the site would be 65 dB at 33 feet, at a distance of 900 feet, noise from the project area would be heavily attenuated and therefore would be barely perceptible.</p> <p>Construction noise would be temporary and construction activities would be limited to less sensitive, daytime hours of 7 a.m. to 7 p.m. in order to minimize disruption. Equipment used would include paving and flat work equipment, and boom cranes for building erection and equipment placement. Due to operational noise levels consistent with surrounding industrial uses, limited construction hours, nature of construction activities, and absence of sensitive land uses in proximity to the project site, noise impacts are anticipated to be minimal, and no mitigation is required.</p> <p>The project does not propose new or rehabilitated residential land uses and residences are not located within a quarter mile of the project site. Therefore, the project would not result in the placement of any new residences in areas with substantial existing noise levels. See Appendix A. No mitigation is required.</p>
<p>Sole Source Aquifers Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>There are no sole source aquifers located in Tuolumne County (see Appendix A). No mitigation is required.</p>
<p>Wetlands Protection Executive Order 11990, particularly sections 2 and 5</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>The project site is located adjacent to Curtis Creek; however, no in-water activities would occur, and all project components would occur at least 50 feet from Curtis Creek. Based on U.S Fish and Wildlife Service National Wetlands Inventory data and a reconnaissance-level survey conducted on May 27, 2021 by a qualified biologist, wetlands are not present on the project site. One drainage ditch was identified on the project site and is exempt from federal jurisdiction according to the Navigable Waters Protection Rule and no federal permits would be required for filling the ditch, should the ditch require filling and grading to accommodate preparation of the site. The ditch is not a water of the state pursuant to the State Procedures so no State discharge or fill permit is required.</p> <p>The project site is characterized as developed with some areas of ruderal grassland. Additional documentation and details, including photographs, are included in Appendix D. No mitigation is required.</p>
<p>Wild and Scenic Rivers Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>The project site is located approximately five miles northwest of the Tuolumne River. The Tuolumne River is designated as a Wild and</p>

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance Determinations
		Scenic River per the Wild and Scenic River Act of 1968. See Appendix A for map and river designations. As stated above, the project site is located approximately 5 miles from the nearest Wild and Scenic River and would not disturb existing river resources or obscure sights of the rivers in any way. No mitigation is required.
ENVIRONMENTAL JUSTICE		
Environmental Justice Executive Order 12898	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The project property is located in a light-industrial area with no nearby housing. The project area is located in a census tract that does not meet the definition of a low-income or minority community pursuant to Executive Order 12898. No adverse environmental impacts were identified in the project's environmental review that could expose existing communities to adverse environmental conditions (e.g., pollution, hazards). The project would comply with Executive Order 12898. See additional documentation in Appendix A. No mitigation is required.

3 ENVIRONMENTAL ASSESSMENT FACTORS

[24 CFR 58.40; Ref. 40 CFR 1508.8 & 1508.27]

Recorded below are the qualitative and quantitative significance determinations of the effects of the proposal on the character, features, and resources of the project area. Each factor is evaluated and documented, as appropriate and in proportion to its relevance to the proposed action. Verifiable source documentation is provided and described in support of each determination. Credible, traceable, and supportive source documentation for each authority is also provided. Where applicable, the necessary reviews or consultations have been completed and applicable permits of approvals have been obtained or noted. Citations, dates/names/titles of contacts, and page references are clear.

Additional documentation is attached, as noted. All conditions, attenuation, or mitigation measures are clearly identified, where applicable.

Impact codes from the following list are used to identify the impact for each factor.

- (1) Minor beneficial impact
- (2) No impact anticipated
- (3) Minor Adverse Impact – May or may not require mitigation
- (4) Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement

Environmental Assessment Factor	Impact Code	Impact Evaluation
Land Development		
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	2	The project site is comprised of two parcels with light industrial (M-1) land use designations. The project is consistent with allowed land uses for this designation per Chapter 17.38 of the Tuolumne County Code, "Light Industrial District," which specifies permitted uses (i.e., general manufacturing, processing, and refining) and density requirements pertaining to that zoning designation. The project consists of a 4,000-sf building, 5,000 sf of covered storage and would include less than approximately 0.5 acres of paved surfaces for a woody biomass pellet manufacturing facility and associated storage space (See Section 1.2, Description of the

Environmental Assessment Factor	Impact Code	Impact Evaluation
		<p>Proposal of this document for equipment types) and would therefore be consistent with permitted uses per Chapter 17.38 of the County Code.</p>
<p>Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff</p>	<p>3</p>	<p>The project would result in new impervious surfaces on the project site. Minor grading associated with drainage, building, and storage would occur. Construction activities would not disturb more than one acre; however, discharge from the project site would enter directly to Curtis Creek, so a stormwater pollution prevention plan (SWPPP) would be required by the Central Valley Regional Water Quality Control Board (RWQCB) and would be prepared before construction and implemented throughout project construction to comply with National Pollutant Discharge Elimination System (NPDES) requirements. These requirements ensure that project-related runoff would not contain contaminants, including hazardous substances. The project would also comply with the California Building Code (CBC) to reduce any potential slope, soil, or erosion impacts.</p> <p>Collection sites where biomass slash would be piled for later collection, removal, and transport would be accessed by a tracked chipper and bin truck to remove piled material. These sites would be prepared landing sites and would be constructed and maintained according to BMPs for the regulatory agency overseeing the fuels treatment or forest thinning activity. Such sites are typically road-adjacent for easy access and are therefore regularly and rigorously maintained to prevent erosion. Additionally, there are limits on equipment access in some areas depending on slope, soil, and other ecological metrics. Access sites for collection of slash would furthermore be evaluated under prior environmental review for fuels treatment projects to determine appropriately protective resource protection measures to implement for protection of soil conditions.</p> <p>An existing drainage ditch is located on the project site, which is exempt from federal jurisdiction according to the Navigable Waters Protection Rule and no federal permits would be required for filling the ditch. The ditch is not a water of the state pursuant to the State Procedures so no State discharge or fill permit is required.</p> <p>Because the project would result in a minor amount of new impervious surfaces and grading that would be regulated through a SWPPP and would therefore comply with NPDES requirements, impacts to site drainage and runoff would be minor and would not require mitigation.</p>
<p>Hazards and Nuisances including Site Safety and Noise</p>	<p>3</p>	<p>Tuolumne County is not within an Alquist-Priolo Earthquake Fault Zone or within any earthquake fault zones, liquefaction zones, or landslide zones. The project would comply with building codes identified by the County and with California Uniform Building Codes (Tuolumne County 2016). No impacts related to earthquake hazards or fault rupture would occur.</p> <p>No hazardous materials or contamination were identified on the project site or within the vicinity of the project site (See Contamination and Toxic Substances under Section 2 above for additional discussion). If any hazardous or contaminated materials were to be discovered during project construction, it would be removed and disposed of in accordance with California Health and Safety Code, Chapter 6.5, Division 20; California Administration Code, Title 22, relating to Handling, Storage, and Treatment of Hazardous Materials; and 29 Code of Federal Regulation 1910.120 relating to Hazardous Waste Operation Safety Training. Noise is discussed above within the "Statutes, Executive Orders, and Regulations Listed at 24 CFR 50.4 & 58.5." No impact is anticipated.</p> <p>The project would produce ash byproduct from the combustion furnace. This material would be fully contained during generation, handling, and storage. Cool ash would be moved via an enclosed conveyor to steel bins for storage. The ash would then be transported to a compost facility at approximately the same rate that it is generated; four to five tons every five days. Ash byproduct is not combustible and is not a regulated toxic substance.</p> <p>The project may result in a temporary increase in ambient noise associated with construction. However, this increase would be to be temporary and limited to daytime hours. Long-term</p>

Environmental Assessment Factor	Impact Code	Impact Evaluation
		<p>operational noise sources would include activities such as loading, transporting, and dumping material and milling operations.</p> <p>Project operations could occur 24 hours per day 7 days a week. However, operations are expected to occur for a total of approximately 8,000 hours per year. The BCHP unit would produce more noise than other elements of the facility. It has a noise level of 65 dB (roughly equivalent to the sound of a normal conversation) measured at 33 feet (Patenaude 2021). Because the project site is zoned for light industrial use, there are no applicable local operational noise standards. This noise level would generally be consistent with existing noise levels from industrial uses in the project vicinity. Potential noise sensitive receptors include facilities such as schools, residences, libraries, hospitals, and other care facilities. The nearest receptor sensitive to noise is a day care facility located approximately 900 feet southwest of the project area. At this distance, noise from the project area would be barely perceptible. Additionally, no sensitive wildlife species were identified within the project site that could be impacted by site-generated noise (Appendix D) and noise impacts to on-site nesting birds would be mitigated through Mitigation Measure 3 (see "Vegetation, Wildlife" environmental assessment factors, below).</p> <p>Construction noise would be temporary and construction activities would be limited to less sensitive, daytime hours of 7 a.m. to 7 p.m. in order minimize disruption. Equipment used would include paving and flat work equipment, and boom cranes for building erection and equipment placement. Due to operational noise levels consistent with surrounding industrial uses, limited construction hours, nature of construction activities, and absence of sensitive land uses or sensitive natural resources in proximity to the project site, noise impacts are anticipated to be minimal, and no mitigation is required.</p>
Energy Consumption	2	<p>The project would not produce on-going demand for energy from off-site sources. A Biomass Combined Heat and Power system (BCHP) would be utilized to produce energy from woody biomass fuel to power the pellet manufacturing facility, and battery storage would provide backup energy. A temporary generator would be used on site during initial project startup and would then be removed from the site. Backup power would be provided through the electrical grid. Grid-provided electricity would only be used as an emergency backup power supply if the BCHP system was not functional. Thus, electricity demand would be negligible. The facility would be designed to meet California Green Building Standards Code (minimum mandatory) standards, including water-efficient fixtures and energy-efficient lighting. Woody biomass for on-site energy production and for pellet manufacturing would be sourced from National Forest System forestlands and privately owned forest areas. No impact would occur.</p>
Socioeconomic		
Employment and Income Patterns	1	<p>The project would create approximately 26 full-time hourly jobs paying a starting wage of \$14.00/hour. The California minimum wage will increase to \$15.00/hour in 2023. At least 51 percent of the new jobs meet the definition of "targeted income" for low-moderate income people as per the Community Development Block Grant National Disaster Resiliency program. Recruitment and job training would be provided. Therefore, the project would have a beneficial effect on employment and income.</p>
Demographic Character Changes, Displacement	2	<p>The project would employ a total of approximately 26 people which, because of the limited number, are assumed to come from the local and regional workforce. The population of the town of Sonora, CA, is approximately 4,844 persons; the population of Tuolumne County is approximately 54,478 persons. Tuolumne County had an unemployment rate of 7.1 as of August 2021 (U.S. DOL), which is approximately consistent with the statewide unemployment rate and indicates that there is available local labor force to meet demand of the project. Most of the new jobs for the facility would meet the definition of targeted income for low-moderate income people per the Community Development Block Grant National Disaster Resiliency program. Mother Lode Job Training would assist with the recruitment and training of employees and documentation of the jobs. The project would not induce population</p>

Environmental Assessment Factor	Impact Code	Impact Evaluation
		growth, demographic changes, or directly or indirectly result in displacement of existing residences. No impact would occur.
Community Facilities and Services		
Educational and Cultural Facilities	2	The project consists of construction and operation of a woody biomass pellet manufacturing facility and would be located in an area consistent with such uses. The project site is not currently developed, and no cultural or educational facilities are located in proximity to the project site. The project would be staffed from the existing local labor pool and would therefore not induce population growth that may necessitate additional demand for schools, parks, recreation opportunities, or open space. Therefore, the project would not affect educational or cultural facilities, or induce demand for construction of additional educational or cultural facilities. No impact would occur.
Commercial Facilities	2	The project consists of the construction and operation of a woody biomass pellet manufacturing facility and would not affect existing commercial facilities. The project would not result in increases in population or housing such that new commercial facilities would be required. No impact would occur.
Health Care and Social Services	2	The project consists of the construction and operation of a woody biomass pellet manufacturing facility and would not result in increases in population or housing such that new health or social services would be required, or existing services would be adversely affected. No impact would occur.
Solid Waste Disposal / Recycling	3	<p>Construction of the project would generate solid waste which would be removed and disposed of at approved recycling and waste facilities. Operation would produce solid waste from 3-6 on-site employees per day, totaling approximately 53.6 pounds of solid waste per day (CalRecycle 2021), which would be removed and disposed of the Cal Sierra transfer Station operated by Waste Management. Because the quantity of solid waste expected to be produced at the site is minimal, it is expected that the transfer station could accommodate this quantity of waste.</p> <p>Hazardous waste associated with project operation would consist of lubricating oils and hydraulic fluids requiring fluid changes and disposal in accordance with equipment manufacturer recommendations. Hazardous fluids would be taken to approved hazardous waste recycling facilities. Pellet manufacturing would produce up to approximately 700 tons per year of non-toxic organic ash, generated by heating organic wood chips from forest treatments. This non-toxic material would be received by a composting facility in proximity to the project site to be blended into compost.</p> <p>Waste associated with construction (wood waste, organic vegetation waste, rock), and waste associated with project operation (ash, municipal solid waste), would be disposed of at the approved recycling Waste Management Facility located at 14909 Camage Avenue, approximately 0.5 mile from the project site. The project would not produce excessive hazardous waste, solid waste for landfills, and would be served by existing facilities. Therefore, impacts would be minimal, and no mitigation is required.</p>
Wastewater / Sanitary Sewers	3	Construction activities associated with the project may result in minor and short-term generation of wastewater. Wastewater associated with project operation would consist of municipal wastewater associated with 3-6 on-site employees per day. Production of the woody biomass pellets is not anticipated to generate wastewater. Existing facilities operated by the Tuolumne County Sanitary District would be sufficient to serve wastewater associated with project operations. The project would not require construction of treatment or transportation facilities onsite. Therefore, impacts related to wastewater would be minimal and no mitigation is required.

Environmental Assessment Factor	Impact Code	Impact Evaluation
Water Supply	3	<p>Demand for water from the proposed project would be generated from 3-6 on-site employees per day, and from site landscaping. Pellet manufacturing would not require additional water supply. Construction of the proposed project may result in limited and temporary water demand associated with dust control measures.</p> <p>The project site is in a developed industrial park with established utilities, including water. Water would be provided by the Tuolumne Utility District from existing supply. The Tuolumne Utilities District (TUD) has water supply, treatment, and storage capacity to serve the described development (Johnson, pers. comm., 2021). While adequate capacity exists, it is not formally reserved until the TUD receives payment of applicable capacity fees. Establishment of water service for parcels that are adjacent to a TUD water main requires that the operator submit an application for service and pay capacity fees. TUD staff then set a water meter and activate service. The project would not result in excessive or wasteful demand for water supplies; therefore, water supply impacts would be minimal, and no mitigation is required.</p>
Public Safety - Police, Fire and Emergency Medical	2	<p>Demand for emergency and public safety services would be associated with on-site employees during business hours. The project would not create unique hazards or hazardous circumstance requiring special precautions to store, handle, or transport onsite materials. While some of the raw material and product at the site are flammable, they are not flammable liquids nor explosive materials with specialized requirements governing storage. It would therefore not represent a unique hazard to first responders in the event of an emergency.</p> <p>Implementation of the project would not result in population growth or residential uses that could generate additional demand for public safety services. The project would be developed on an industrially zoned parcel within an industrial park serviced by existing police, fire, and emergency services. A fire and ambulance station is located less than one mile southwest the project site, at 18440 Striker Court. The nearest emergency room is located at 1000 Greenly Road, approximately 4 miles from the proposed project. The project would not adversely impact or result in construction of new public safety facilities; therefore, no impact would occur.</p>
Parks, Open Space and Recreation	2	<p>The project proposes light industrial land use on two parcels that consist of M-1 (light industrial) and O (open space) land use designations. The project would not construct or operate within the open space portions of the parcels at southern portions of the project site, adjacent to Curtis Creek. The project would not result in population increases or residential use that may require construction of additional open space, parks, or other recreational uses; therefore, no impact would occur.</p>
Transportation and Accessibility	3	<p>Demand for transportation and potential traffic related impacts would result from 3-6 plant and office employees per shift on site, and from approximately 10-12 truck trips per day resulting from transport of incoming biomass material, pellet distribution, and transport of the organic ash byproduct to a composting facility. Truck trips would bring raw woody biomass materials for processing and pick up completed pellets for distribution and delivery. (See Site Development). Per County guidance (Guide of the Preparation of County of Tuolumne Traffic Impact Studies), a full traffic impact study, including intersection analysis is not required because the project would not generate more than 50 peak hour trips.</p> <p>Existing traffic conditions along Camage Avenue may be adversely affected during peak hours. The project would be subject to Traffic Impact Mitigation Fees that are applicable to industrial manufacturing land uses per Chapter 3.54 of the Tuolumne County Ordinance "Traffic Impact Mitigation Fees."</p> <p>Emergency access would be subject to review by Tuolumne County and the responsible emergency service agencies during the design review process, ensuring internal and external project access would be designed to meet all Tuolumne County emergency access and design standards. Therefore, adequate emergency access would be provided.</p>

Environmental Assessment Factor	Impact Code	Impact Evaluation
		<p>The project would be designed and constructed to provide safe vehicle access in accordance with the requirements contained in the Tuolumne County Community Resources Agency Roads Division Encroachment Permit Information Packet. The preliminary design provides adequate vehicle parking based on the anticipated usage rates and patterns of the project provided by the County. No impact is anticipated.</p> <p>The project would not have a substantial adverse impact on existing transportation facilities, would not generate substantial new demand beyond capacity of existing services. Impacts of the project to transportation and accessibility would be minor and no mitigation is required.</p>
Natural Features		
<p>Unique Natural Features, Water Resources</p>	<p>2</p>	<p>Conformance with local construction requirements and BMPs identified in the SWPPP would ensure that water resources in the area would not be adversely affected during project construction. Construction of site buildings would result in the addition of impervious surfaces that would preclude groundwater recharge in these areas; however, there are no designated groundwater basins in Tuolumne County, and groundwater resources in the region are characterized by fractured bedrock and noncontiguous infiltration and recharge sources. Because the SWPPP would require on-site water management and because of the geological characteristics of bedrock in the county, placement of impervious surfaces would not impact groundwater recharge or groundwater sources.</p> <p>Curtis Creek is accessible from the south at Standard Park near the project site. The project site and creek are separated by county-designated open space that acts as a buffer at the southern end of the project site. No unique natural features would be impacted by placement of project facilities, and project component siting would avoid the open space in the southern part of the site, as well as Curtis Creek. No impact would occur.</p>
<p>Vegetation, Wildlife</p>	<p>3</p>	<p>A biological evaluation was conducted for this project and the complete report is included as Appendix D. A reconnaissance-level survey was conducted on May 27, 2021, by a qualified biologist. In addition, information on sensitive biological resources previously recorded at the project sites was collected through review/search of: USFWS's sIPaC; CNDDBUSFWS National Wetlands Inventory; California Native Plant (CNPS) Inventory of Rare Endangered Plants; and the <i>Tuolumne County Wildlife Handbook</i> (Tuolumne County 1987).</p> <p>Habitat potentially suitable for nesting common native bird species protected by California Fish and Game Code and the federal Migratory Bird Treaty Act is present in the riparian mixed hardwood habitat on the project site. While no project activities (i.e., tree removal, staging, ground disturbance) are proposed to occur within this habitat, project activities, including the use of heavy equipment, could result in visual or auditory disturbance to nesting birds, including raptors, if present. The following measure would ensure that disturbance to nesting birds, if present, would not occur:</p> <ul style="list-style-type: none"> ▶ Prior to project construction activities, including ground disturbance, grading, and staging, the project site will be surveyed for active nesting activity. If nesting birds are present on the project site, project construction activities will be scheduled to avoid the nesting bird season for the detected species, which would occur between approximately February 1 through August 31. <p>The riparian mixed hardwood habitat on the project site is a sensitive habitat and portions of this habitat may meet the membership rules of three sensitive natural communities: box elder forest and woodland, Oregon ash groves, and valley oak woodland and forest. The portion of Curtis Creek on the project site would be considered a water of the United States and a water of the state. No project activities (i.e., vegetation removal, staging, ground disturbance) are proposed to occur within the riparian mixed hardwood habitat adjacent to Curtis Creek or within the creek itself. Thus, direct removal of these resources is not expected to occur. However, indirect impacts on riparian mixed hardwood habitat or Curtis Creek, including inadvertent damage to riparian vegetation during vehicle or equipment operation or staging or inadvertent discharge of or chemicals into Curtis Creek could occur during project</p>

Environmental Assessment Factor	Impact Code	Impact Evaluation
		<p>construction. The following measure would ensure that indirect impacts on riparian mixed hardwood habitat and Curtis Creek would not occur.</p> <ul style="list-style-type: none"> ▶ Permanent fencing or temporary high-visibility construction fencing shall be installed between the riparian mixed hardwood habitat, outside of the dripline of the riparian tree canopy, and the active construction site to prevent entry by vehicles, equipment, or construction personnel.
Other Factors: Greenhouse Gases and Climate Change	1	<p>Construction activities would result in minor emissions of greenhouse gases associated with the use of construction vehicles and off-road equipment, and from operational emissions related to manufacturing activities. However, construction activities would be minor and temporary and operational activities would also not result in substantial emissions, associated with building energy consumption and mobile sources from trip generation. As discussed above for the Energy Consumption Environmental Assessment Factor, several design components of the project would reduce energy consumption and associated emissions. Additionally, greenhouse gas emissions generated from implementation of the project would be offset by the reduced need for pile burning biomass material as a part of forest fuels reduction practices. The offset in greenhouse gas emissions would result in an estimated net reduction in GHG emissions of 46,732 metric tons (MT) CO₂ from implementation of the project over an assumed 30-year project lifespan. Therefore, a net benefit to greenhouse gas emissions and climate change would result from implementation of the proposed project. The complete GHG assessment is included as Appendix B.</p>

3.1 ADDITIONAL STUDIES PERFORMED

Greenhouse Gas Assessment: A Greenhouse Gas (GHG) Assessment was carried out to evaluate the proposed project's net contribution of GHGs to determine if the project would significantly contribute to GHG emissions according to the threshold indicators established for this project. In the absence of federal thresholds, the evaluation used significance criteria established by the California Environmental Quality Act (CEQA), which are considered reasonable for a project in California. The complete analysis and documentation are included in Appendix C.

Biological Evaluation: A Biological Evaluation was conducted for the project by Ascent Environmental in May 2021. The evaluation was carried out by a qualified biologist during a reconnaissance-level survey of the project site on May 27, 2021. Information on sensitive biological resources previously recorded in the project sites was collected through review of USFWS species lists, a search of the CNDDDB, and other existing documentation pertaining to biological resources in the region. Resources and data reviewed included the following:

- ▶ CNDDDB record search, including a 5-mile radius around the project site (CNDDDB 2021),
- ▶ USFWS IPaC automatically generated list of Federal Endangered and Threatened Species that occur in or may occur within the project sites,
- ▶ USFWS National Wetlands Inventory (USFWS 2021),
- ▶ California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (online edition, v8-03) (CNPS 2021), and
- ▶ Tuolumne County Wildlife Handbook (Tuolumne County 1987).

The findings in this study were used to prepare the Environmental Assessment Worksheets and this analysis. The complete report is included as Appendix D.

Cultural Resources Inventory: Under contract to Ascent Environmental, Natural Investigations prepared a Sacred Lands File search, pedestrian survey of the area of potential effect (APE), and a projects effects assessment. Natural Investigations conducted tribal and State Historic Preservation Officer (SHPO) consultation in accordance with Section

106 requirements. The methodology employed for identification of historic properties included a cultural resources literature search completed by the Central California Information Center on March 24, 2021; a Sacred Lands File search by the Native American Heritage Commission on April 16, 2021; and a search by Natural Investigations of the University of California Museum of Paleontology (UCMP) database on March 24, 2021. Natural Investigations conducted an intensive-level pedestrian survey of the APE on April 7, 2021. Findings of the cultural resources survey are included in Appendix E. The letter of SHPO concurrence is provided in Appendix A.

3.2 FIELD INSPECTION

As discussed above in Section 3.1, "Additional Studies Performed," field inspections were conducted as part of the Biological Evaluation and the Cultural Inventory Report.

3.3 LIST OF SOURCES, AGENCIES, AND PERSONS CONSULTED

[40 CFR 1508.9(b)]:

National Park Service
U.S. Department of the Interior
U.S. Department of Homeland Security, Federal Emergency Management Agency
U.S. Environmental Protection Agency
U.S. Department of Housing and Urban Development California Department of Conservation
California Department of Housing and Community Development Tuolumne County
U.S. Fish and Wildlife Service
Tuolumne Utilities District
Tuolumne City Sanitary District
State Historic Preservation Officer
Native American Heritage Commission
Central California Information Center

3.4 LIST OF PERMITS OBTAINED

No permits were obtained at the time of this analysis.

3.5 PUBLIC OUTREACH

[24 CFR 50.23 & 58.43]

Pursuant to 24 CFR 50.23 and 58.43, HUD will make the Finding of No Significant Impact (FONSI) available on the project website at <https://www.hcd.ca.gov/community-development/disaster-recovery-programs/ndrc.shtml> and provide mailings to interested and affected parties. The FONSI will be published in the newspaper of record.

One public meeting for the Tuolumne County Board of Supervisors was held in June 2021 during which time the proposed project was introduced and described to the Board. Additionally, an Eight Step Process for a proposed activity in a 100-year floodplain was carried out and public noticing for the floodplain activity was published in the newspaper of record on October 26, 2021, and in December 2021.

3.6 CUMULATIVE IMPACT ANALYSIS

[24 CFR 58.32]

3.6.1 Cumulative Context

Cumulative effects result from spatial and temporal crowding of multiple environmental perturbations (CEQ 1997). Such effects under NEPA include the total impact on resource areas due to past, present, and reasonably foreseeable future actions of federal and non-federal entities. The spatial and temporal scale of cumulative effects varies by resource but is limited to resources for which an environmental impact resulting from the project exists. In evaluating cumulative effects of the proposed action, a variety of potential actions and scales was considered.

Probable existing and future projects considered in the cumulative analysis include those in the project vicinity of or are related to the proposed project, and/or have the possibility of being implemented within the same timeframe as the proposed woody biomass pellet manufacturing facility to generate a cumulative impact. Cumulative projects considered in combination with the woody biomass pellet manufacturing facility include local industrial development approved by the county, regional biomass utilization projects that have the potential to consume the same biomass feed sources, and fuels treatment projects that have the potential to generate transportation traffic along the same routes as the proposed project (see Appendix F).

As described above, the effects of the proposed project on resources are anticipated to be mostly site-specific, temporary, or minor in nature. Consequently, there is little opportunity for significant cumulative adverse effects on resources from the proposed project. For resources for which no offsite effects are expected to be generated and/or onsite effects are expected to be nonexistent or minimal, there would be no cumulative impacts and these resources are not discussed in the cumulative analysis. Such resources include land use, energy, socioeconomic factors, public services and facilities, public safety services, and parks, open space, and recreation.

3.6.2 Cumulative impacts

Cumulative projects that overlap with the range of nesting birds that could occur in the project would have some level of adverse effects on these resources. As discussed in the Biological Resources Evaluation (Appendix D), implementation of the proposed project would not substantially affect the distribution, breeding productivity, population viability, or the regional population of any special-status species; or cause a change in species diversity locally or regionally. Implementation of mitigation measures identified in this EA, which include site surveys for active bird nesting activity and an exclusion window for project activities if nesting birds are present on the project site, as well as installation of permanent fencing or temporary high-visibility construction fencing between the riparian mixed hardwood habitat and the active construction site to prevent entry by vehicles, equipment, or construction personnel. These measures would reduce potential impacts to biological resources such that the proposed project would not have an adverse cumulative effect on biological resources.

Nearby and regional projects listed in Appendix F have the potential to generate temporary, short-term increases in traffic on local roads near biomass loading sites, and on regional state and interstate highways. The cumulative projects would result in more traffic than that generated by the proposed project and would be dispersed throughout the region. Additionally, the timing of traffic generated by the cumulative projects would be dispersed throughout the day. The small number of trips (estimated at fewer than 11 trips per day) generated by the project in combination with cumulative projects would not generate substantial new vehicle trips that would affect traffic on these roadways such that there would be a noticeable increase in traffic on roads associated with the proposed project, create traffic hazards, or any interference with emergency response or evacuation plans. Therefore, the proposed project would not have an adverse cumulative effect on transportation.

The proposed project would not result in any major increases in noise within the vicinity of the project area, but it would result in a minor increase in long-term noise levels. As discussed above, the proposed project would result in some short-term and temporary noise during construction of the facility during daytime hours. Proposed project activities would create a long-term noise source during operation of the project. However, equipment at the site would be

contained within buildings, and the loudest noise-generating equipment would be the BCHP, which is anticipated to produce sound at a volume of 65 dB (which is similar to the volume of a normal conversation) at a distance of 33 feet. Noise generated by the project would be attenuated at distance from the equipment and is expected to be less than 45 dB at the property line. The project site is zoned industrial, and the type of noise would be consistent with surrounding land uses. Thus, the proposed project would not have an adverse cumulative effect on noise.

Although impacts to cultural resources are not anticipated, the potential for discovery of yet unknown resources is possible. Therefore, the project has the potential to adversely affect cultural resources. However, these impacts would be limited to the immediate project site, and therefore, would not combine with impacts from other past, present, and probable future development. Operation of the project would not induce growth or additional development in the area because of the small project size and limited number of employees both during construction and operation of the woody biomass pellet mill facility. The proposed project would produce a product (wood pellets) that would meet existing market demand and would not generate additional markets for this product. For these resources, the proposed project's potential contribution to significant cumulative impacts for the above resources would not be considerable and this impact would be less than significant.

The proposed project would involve consumption of a biomass product—slash—that would otherwise be burned in piles as a part of local and regional forest fuel reduction activities, thereby creating GHGs. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas most pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. The quantity of GHGs in the atmosphere that ultimately result in climate change is not precisely known but is enormous; no single project would measurably contribute to an incremental change in the global average temperature, or to global, local, or microclimates. GHG effects relative to global climate change are inherently cumulative. Consequently, management of biomass material under the proposed project would reduce GHGs and cumulatively contribute to the global GHG emissions balance.

Implementation of the project would result in a net reduction in GHG emissions of 46,732 metric tonnes (MT) CO₂ equivalent. This is primarily because the open burning of biomass piles generates more emissions than the combustion of biomass at the pellet mill and other supporting activities. Under existing conditions, the biomass that would be used by the proposed project would be piled and burned in-situ. As part of this proposed project, it is certain that the biomass would be utilized as an energy source both by the pellet mill as dried biomass and by the end consumers as wood pellets. Thus, the effect of utilizing biomass from this site on the project would result in a net decrease in GHG emissions because pile burning of this biomass would be avoided. In summary, because hauling and combustion of biomass for the manufacture of wood pellets is less GHG intensive than piling and burning in-situ, this project would not result in a net increase in GHG emissions. For these reasons, the proposed project would not significantly cumulatively contribute to GHG emissions or climate change.

As described above, the proposed project would not result in a significant adverse cumulative effect for any of the resources discussed above.

3.7 ALTERNATIVES CONSIDERED

(Identify other reasonable courses of action that were considered and not selected, such as other sites, design modifications, or other uses of the subject site. Describe the benefits and adverse impacts to the human environment of each alternative and the reasons for rejecting it). [24 CFR 58.40(e); 40 CFR 1508.9]

The project proponent, TBI, investigated several other potential candidate sites and evaluated these sites for the economic and logistical feasibility of developing the woody biomass pellet manufacturing facility. TBI established basic minimum parameters for site suitability prior to conducting the candidate site search. The following site requirements were identified:

- ▶ A minimum size of 2 acres.
- ▶ The site zoning must allow wood products manufacturing as an allowed or conditional use.
- ▶ There must be no conflicting adjacent uses (such as residential properties).
- ▶ The site must be available for lease at a rate that is economically viable.
- ▶ The site must be located within or adjacent to the feedstock study area so that transportation of raw materials to the site meet emissions targets and enables financial success of the project.

Three alternative candidate sites were evaluated in addition to the proposed site. The following summarizes the location of each site and the reasons for dismissing them from further evaluation.

Alternative Site 1 (Adjacent to Compost Facility) APN 097-330-007

- ▶ The site is zoned Industrial but is close to residential uses which could lead to future conflicts.
- ▶ The parcel is a completely undeveloped brownfield site requiring extensive improvements (e.g., clearing, grading, drainage, gravel) before it will be ready to lease.
- ▶ The required improvements are not likely to be completed quickly enough to meet the conditions of the loan.

Alternative Site 2 (Camage Ave.) APN-061-170-007-000 in Plum Industrial Park (Lots 6, 7, and 8)

- ▶ The site is currently under a lease contract and will not be available quickly enough to meet the conditions of the loan.
- ▶ The lease rate is higher for this development and the owner would rather sell than enter into a long-term lease.

3.8 NO ACTION ALTERNATIVE

[24 CFR 58.40(e)] (Discuss the benefits and adverse impacts to the human environment of not implementing the preferred alternative).

There are no benefits to the physical or human environment by taking no federal action for this proposal. If no funding is provided, the woody biomass pellet manufacturing facility would not be constructed and therefore this receiving facility for slash generated from forest fuels management activities and forest thinning would not be available to manage forest biomass byproduct. With the no action alternative, there would be no benefits to GHG emissions because slash piles would be burned. The no action alternative would not include any development and no temporary construction activities would occur. Approval of the no action alternative would not result in any benefits to the region and would not meet the purpose and need of the proposal.

3.9 SUMMARY OF FINDINGS AND CONCLUSIONS

The following provides a summary of the mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into the project conditions of approval and the staff responsible for implementing and monitoring the mitigation measures should be clearly identified in the mitigation plan.

3.9.1 Mitigation Measures and Conditions

[40 CFR 1505.2©]

Law, Authority, or Factor	Mitigation Measure
<p>National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800</p>	<p>Mitigation Measure 1: Inadvertent Discovery of Historical and Archaeological Resources</p> <p>In the unlikely event that buried cultural deposits (e.g., prehistoric stone tools, milling stones, historic glass bottles, foundations, cellars, privy pits) are encountered during project implementation, all ground-disturbing activity within 100 feet of the resources shall be halted and a qualified professional archaeologist (36 Code of Federal Regulations [CFR] 61) shall be notified immediately and retained to assess the significance of the find. Construction activities could continue in other areas. If the find is determined to be significant by the qualified archaeologist (i.e., because it is determined to constitute either a historical resource or a unique archaeological resource), the archaeologist shall develop appropriate procedures to protect the integrity of the resource and ensure that no additional resources are affected.</p> <p>Procedures could include but would not necessarily be limited to preservation in place, archival research, subsurface testing, or contiguous block unit excavation and data recovery.</p> <p>Mitigation Measure 2: Inadvertent Discovery of Human Remains</p> <p>In accordance with the California Health and Safety Code (CHSC), Section 7050.5, and the Public Resources Code (PRC) 5097.98, regarding the discovery of human remains, if any such finds are encountered during project construction, all work within the vicinity of the find shall cease immediately, a 100-foot-wide buffer surrounding the discovery shall be established, and the County shall be immediately notified. The County Coroner shall be contacted immediately to examine and evaluate the find. If the County Coroner determines that the remains are not recent and are of Native American descent, the Coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendent (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.</p>
<p>Vegetation and Wildlife</p>	<p>Mitigation Measure 3: Nesting Birds</p> <p>Prior to project construction activities, including ground disturbance, grading, and staging, the project site will be surveyed for active nesting activity. If nesting birds are present on the project site, project construction activities will be scheduled to avoid the nesting bird season for the detected species, which would occur between approximately February 1 through August 31.</p> <p>Mitigation Measure 4: Exclusion Fencing</p> <p>Permanent fencing or temporary high-visibility construction fencing shall be installed between the riparian mixed hardwood habitat, outside of the dripline of the riparian tree canopy, and the active construction site to prevent entry by vehicles, equipment, or construction personnel.</p>

4 REFERENCES

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