PUBLIC DRAFT

Initial Study/Mitigated Negative Declaration

NCSD Wood Energy System

APRIL 2023

Prepared for:

NORTHSTAR COMMUNITY SERVICES DISTRICT
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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AADT	Annual Average Daily Traffic
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
AMSL	Above mean sea level
APE	Area of Potential Effect
BDT	Bone dry tons
BMP	Best Management Practices
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CO	Carbon Monoxide
CWPP	Community Wildfire Protection Plan
dBA	A-weighted decibel
DPM	Diesel Particulate Matter
DTSC	Department of Toxic Substances Control
du/ac	dwelling units per acre
EPA	Environmental Protection Agency
F	Fahrenheit
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Severity Zone
FOR-B-X-AO 160 AC. MIN	Forestry-Building-Site- Airport Overflight 160 Acreage Minimum
FTA	Federal Transit Administration
GHG	Greenhouse Gas
HARP	Hot Spots Analysis and Reporting Program
HRA	Health Risk Assessment
HVAC	Heating, ventilation, and air conditioning
I	Interstate
Ldn	Day-night average sound level
Leq	Equivalent continuous sound level
Lmax	Maximum Sound Level
Lw	Sound Power Level
MCAB	Mountain Counties Air Basin
MDER	Massachusetts Department of Energy Resources
MEIR	Maximum Exposed Individual Resident
MEIW	Maximally Exposed Individual Worker
MMBtu	Million British thermal units
MND	Mitigated Negative Declaration
MRF	Material Recovery Facility
MTP	Metropolitan Transportation Plan

NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCSD	Northstar Community Services District
NCSD Board	Northstar Community Services District Board of Directors
NOx	Oxides of Nitrogen
NPOA	Northstar Property Owners Association
O_3	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
PCAPCD	Placer County Air Pollution Control District
PCSP	Placer County Sustainability Plan
PCTPA	Placer County Transportation Planning Agency
PCWA	Placer County Water Agency
PM	Particulate Matter
RES-Ds-PD=15	Resort-Combining Design Sierra-Planned Residential Development 15 dwelling units per acre maximum
RM-Ds-PD=15	Residential-Multi-Family-Combining Sierra Design-Planned Residential Development 15 dwelling units per acre maximum
ROG	Reactive Organic Gases
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SACOG	Sacramento Area Council of Government
SEL	Sound Exposure Level
SCS	Sustainable Communities Strategy
Sox	Sulfur Oxides
SR	State Route
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TCR	Tribal Cultural Resources
TTALUC	Tahoe Truckee Airport Land Use Commission
TTSA	Tahoe-Truckee Sanitation Agency
TTSD	Tahoe Truckee Sierra Disposal
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
VMT	Vehicle-Miles Traveled
VOC	Volatile Organic Compounds

1 Introduction

1.1 Project Overview

The Northstar Community Services District (NCSD) proposes to build a wood energy system to meet heating loads that are currently served by natural gas-fired boilers in approximately 14 buildings in the Northstar California ski resort community, as shown in Figure 1, Project Location.

The new energy system would consist of two wood chip-fired hot water boilers located within a Wood Energy Utility Facility building to be constructed on NCSD property at 908 Northstar Drive. Heating loads include a range of residential and commercial space heating, domestic hot water, and swimming pools and spas. As shown in Figure 2, Project Site, the project site includes the NCSD property located at 900, 908, and 910 Northstar Drive and extends along Northstar Drive to the Village at Northstar, and to the Northstar Property Owners Association (NPOA) Recreation Center.

To power the proposed wood energy system, NCSD would obtain approximately 3,800 bone dry tons (BDT) of woody fuel from Tahoe Truckee Sierra Disposal (TTSD). A portion of the fuel would be generated by the existing NCSD defensible space and forest fuels management programs. Currently the materials generated by these programs are either chipped and broadcast within the Northstar California community, transported to the TTSD Commercial Materials Recovery Facility(MRF) at the Eastern Regional Landfill where the materials are chipped and sold as mulch or recycled or treated with pile burning within the Northstar California community. NCSD has largely curtailed the use of pile burning due to wildfire risk. However, in some locations pile burning is still necessary where physical conditions (such as topography and natural drainages) prevent removing the material. The defensible space and forest fuels management programs generate material ranging between approximately 400 and 750 BDT of woody biomass per year that would be transported to TTSD's MRF. TTSD also receives biomass materials from a variety of other existing sources and may obtain additional woody biomass from a regional effort that is currently being developed to create a dedicated forest fuel waste stream from defensible space and fuels management programs operated by the U.S. Forest Service, regional fire districts, energy companies maintaining clear space around power lines, and other regional partners. TTSD would sort all of the woody biomass material based on specifications for fuel (primarily the amount of ash that would be generated when it is burned). TTSD would transport woody biomass material to the NCSD Wood Energy Utility Facility and would continue to transport biomass material to the Rio Bravo-Rocklin and Honey Lake Power electrical generation facilities, Full Circle Compost in Minden, Nevada, and/or to the Lockwood Landfill, outside of Reno, Nevada to be used as alternative daily cover. Figure 3, Woody Biomass Utilization Processes, demonstrates the existing processes in which woody biomass materials are managed and used in the region as well as the proposed process for use of wood within the proposed NCSD Wood Energy System.

The proposed wood energy system would employ two boilers with a total capacity of approximately 6.8 million British thermal units (MMBtu) per hour. The system would be expected to generate 50,735 MMBtu annually by processing 3,800 BDT of material. By implementing this system, NCSD would be able to provide 99% of the average annual thermal demand for the connected facilities. Existing natural gas boilers within the connected facilities would remain in service to provide backup service, meet peak demand, and serve residual heating loads during periods when the wood energy system is operating below maximum capacity.

1.2 California Environmental Quality Act Compliance

This Initial Study has been prepared in accordance with the requirements of the California Environmental Quality Act (CEQA) of 1970 (Public Resources Code, Section 21000 et seq.), and the CEQA Guidelines (14 California Code of Regulations 15000 et seq.). Based on the analysis in this Initial Study, NCSD prepared a Proposed Mitigated Negative Declaration, which was circulated for public review along with this Initial Study between April 21 and May 22. Following public review, the NCSD Board of Directors (NCSD Board) will consider whether to adopt the Mitigated Negative Declaration and an accompanying Mitigation Monitoring and Reporting Program and whether to approve the project.

1.3 Project Planning Setting

As shown in Figure 1, the project is located within the Northstar California ski resort community, which is located approximately six miles south of downtown Truckee. The Northstar California ski resort was originally developed in the early 1970s. NCSD was founded in 1990 as a municipal government entity to provide governmental services to the Northstar California community, including water, sewer collection, solid waste management, recycling services, fire protection, fuels management, snow removal, road surface maintenance, and trail construction and maintenance.

The Wood Energy Utility Facility building would house the boilers. As shown in Figure 2, this facility is proposed to be located at 908 Northstar Drive. The thermal energy distribution pipeline is proposed to be extended between the Wood Energy Utility Facility to 900 Northstar Drive and between the Wood Energy Utility Facility and the Village at Northstar, including the NPOA Recreation Center. The project would not change the land uses within the project site, with the exception of adding the Wood Energy Utility Facility to the 908 Northstar Drive property. Another building had been present in this location between 1971 and 2022; it had originally housed fire department equipment bays and barracks, later was used for the NCSD administrative offices, and was most recently used as an outdoor oriented charter school/daycare center. This building was demolished in the fall of 2022.

Elevations within the project site vary from approximately 6,220 feet above mean sea level (AMSL) in the northern portion of the site (908 Northstar Drive) to 6,360 feet AMSL along the southern boundary (the NPOA Recreation Center). The site is situated in Township 17 North, Range 17 East, and Section 32 of the Martis Peak 7.5-minute U.S. Geological Survey quadrangle.

Note that Figures 1 through 10 are presented at the end of Section 2, Project Description.

1.4 Public Review Process

The Proposed Mitigated Negative Declaration (MND) and Initial Study are being circulated for public review for a period of 31 days, pursuant to CEQA Guidelines, Section 15073(a). NCSD provided public notification of the beginning of the public review period on April 21, 2023 by publishing a Notice of Intent to Adopt a Mitigated Negative Declaration (Notice of Intent) in the Sierra Sun newspaper; submitting the Notice of Intent to the Placer County Clerk's office for posting; posting the Notice of Intent, Proposed MND, and Initial

Study on NCSD's website; and notifying stakeholders, local agencies, and other parties that have expressed interest in the project via direct mailings and emails. This draft Initial Study is also being routed to State agencies through the Office of Planning and Research under a Notice of Completion. The public review period ends on May 22, 2023.

After the public review period, NCSD will consider all comments received, revise the Initial Study as necessary, and schedule the project and the Proposed MND, including this Initial Study, for consideration by the NCSD Board at a publicly noticed public hearing. The NCSD Board will accept any written and oral comments at the hearing and determine whether to adopt the MND and whether to approve the project.

Comments or questions may be addressed to Eric Martin, Director of Public Works at 900 Northstar Drive, Truckee, CA 96161 or via email at ericm@northstarcsd.org. Comments on the Initial Study and Proposed MND must be received by 5:00 p.m. on May 22, 2023.

2 Project Description

2.1 Project Introduction

Overview

NCSD proposes to construct a community-scale wood energy system in the Northstar California community, which is located between the Town of Truckee and Lake Tahoe. The proposed project consists of two hot water boilers, which would be heated by combustion of wood chips at a Wood Energy Utility Facility and a thermal energy distribution pipeline connected to existing heating systems within approximately 14 buildings and facilities (referred to throughout this Initial Study as the connected facilities). The connected facilities including residential and commercial spaces, swimming pools/spas, and potentially the snow melt system for the Village at Northstar plaza. The wood energy system would be thermally-led (meaning that it would produce energy in proportion to the heating demand required by the connected facilities) and operated year-round to serve a wide range of heating loads. The connected facilities are currently served by natural gas-fired boilers, thus the proposed project would reduce natural gas use within the community.

The proposed project would enhance NCSD's forest fuels management and defensible space programs, which have been implemented in the community since 2008 to reduce the risk of catastrophic wildfires. The woody biomass material removed from the community under NCSD's existing forest fuels management and defensible space programs would provide a portion of the fuel for the wood energy system boilers.

Background

NCSD provides the community surrounding the Northstar California ski resort with vital public services including water, sewer, solid waste, fire protection, hazardous forest fuels management, snow removal, road maintenance, and recreational trails. Located in the Sierra Nevada Mountains at elevations ranging from 5,800 feet to more than 6,300 feet AMSL, Northstar California is one of the coldest communities in California, often having one of the lowest daily temperatures in the contiguous United States. In December and January, average daily high temperatures are 40 and 41 degrees Fahrenheit (F) and average daily low temperatures are 15 and 14 degrees F. The area is also one of the snowiest areas in the country, with an average annual snowfall of 202 inches (US Climate Data 2023). These factors result in relatively high rates of energy consumption to heat building spaces.

At the same time, it is well documented that California is in the midst of a growing wildfire crisis, and like much of the state, the forests in the Tahoe-Truckee region contain dangerously high levels of hazardous woody biomass. Robust efforts are needed to reduce wildfire fuel loads in forested areas and increase the amount of defensible space around developed areas. This is recognized in the California Wildfire and Forest Resilience Action Plan, which was prepared with the intent of accelerating efforts to "restore the health and resilience of California forests, grasslands and natural places; improve the fire safety of our communities; and sustain the economic vitality of rural forested areas." To accomplish these goals, the Wildfire and Forest Resilience Action Plan identifies the need to increase forest management, fuel reduction, and defensible space programs and activities as well as create economic opportunities for the use of forest materials in ways that reduce emissions and contribute to sustainable local economies (Forest

Management Task Force 2021). Similarly, the California Forest Action Plan recognized the need to reduce wildfire fuel loads and identified strategies to address wildfire hazards that include promoting long-term economic and ecological sustainability of forest lands, preventing damaging wildfires, maintaining water supply and water quality, and improving air quality and reducing energy consumption (CalFire 2010).

The project has received support under the U.S. Department of Agriculture (USDA) Forest Service Wood Education and Resource Center technical assistance program. Under this program, a Feasibility Study for the proposed project was completed by Wildephor Consulting Services, LLC and Wilson Engineering Services, PC (Wildephor 2020).

2.2 Project Purpose and Objectives

Through completion of a woody biomass utilization scoping study in 2020, NCSD identified the following Mission Statement for the project:

> *NCSD seeks to improve the economic viability, environmental impact, and overall effectiveness of removing and repurposing forest biomass in order to reduce wildfire risk and restore watershed health.*

In addition, NCSD has identified the following project objectives:

- Reducing the risk of catastrophic wildfires by eliminating excess hazardous fuels;
- Generating local, community-scale renewable energy to directly offset the consumption of fossil fuels from out-of-state sources;
- Reducing the operating costs of forest fuels management and defensible space programs;
- Improving regional air quality by lowering emissions of criteria pollutants;
- Reducing greenhouse gas (GHG) emissions to help limit global warming;
- Eliminating the need for costly offsite disposal of residual woody biomass;
- Restoring regional forest and watershed health and wildlife habitat;
- Being the first of potentially several wood energy systems established in the Tahoe-Truckee region to offer a landscape-level tool in wildfire prevention and management; and
- Acting as a case study to demonstrate feasibility and best practices for other potential woody biomass energy systems in similar communities.

2.3 Project Location

As shown in Figure 1, Project Location, the project is located within the Northstar California community ski resort, which is in Placer County and located approximately six miles south of downtown Truckee. The site is situated in Township 17 North, Range 17 East, and Section 32 of the Martis Peak 7.5-minute U.S. Geological Survey quadrangle.

As shown in Figure 2, Project Site, the project site includes the NCSD property located at 910 and 908 Northstar Drive and extends to 900 Northstar Drive as well as along Northstar Drive to the NPOA Recreation Center. The Wood Energy Utility Facility is proposed to be located at 908 Northstar Drive, north of the Northstar Fire Station located at 910 Northstar Drive. The thermal energy distribution pipeline would be

installed below-grade between 900 and 908 Northstar Drive, along Northstar Drive between 908 Northstar Drive and 4001 Northstar Drive, and between 8001 Northstar Drive and the NPOA Recreation Center, which is located east of the Village at Northstar and includes pools, spas, and tennis courts. The project would not change the land uses within the project site, with the exception of replacing the previous building at 908 Northstar Drive, which had originally housed fire department equipment bays and barracks, was later used as NCSD's administrative offices, and was most recently used as an outdoor oriented charter school/daycare center.

2.4 Environmental Setting

The Northstar California ski resort was originally developed in the early 1970s. The community includes approximately 840 single-family residences and 1,300 condominium and hotel units. The area is approximately 57 percent built-out, with capacity for a maximum of 1,598 additional housing units to be constructed (NCSD 2020). NCSD was founded in 1990 as a municipal government entity to provide governmental services to the Northstar community, including water, sewer collection, solid waste management, recycling services, fire protection, fuels management, snow removal, road surface maintenance, and trail construction and maintenance.

As shown in Figure 4, Surrounding Land Uses, the project site is located within the Northstar California ski resort community. The boilers would be housed in a Wood Energy Utility Facility building that is proposed to be constructed at 908 Northstar Drive. The NCSD offices are located northeast of this site, at 900 Northstar Drive, while the Northstar Fire Department station is located south of the proposed Wood Energy Utility Facility site, at 910 Northstar Drive. There are also low-density and medium-density residences surrounding this location and two segments of the Tomkins Memorial Trail pass the location to the west and east. The thermal heat distribution pipeline would be placed below-grade along Northstar Drive (primarily beneath the existing pavement but below-grade adjacent to the existing pavement in limited locations) and would carry heat to existing buildings within the Village at Northstar, which includes condominiums and commercial uses (predominantly retail shops and restaurants), potentially to the plaza in the Village at Northstar for melting snow if the limited existing system is expanded, and to the NPOA Recreation Center.

As shown on Figure 5A, General Plan Designations and Figure 5B, Zoning Designations, the project site carries the following land use and zoning designations under the Placer County Martis Valley Community Plan (Placer County 2003) and the Placer County Zoning Ordinance (Placer County 2023):

Land Use Designations

- 908 Northstar Drive - Forest 40-640 acre minimum
- 950 – 962 Northstar Drive and 4001 – 8001 Northstar Drive - Tourist/Resort Commercial
- NPOA Recreation Center - Forest 40-640 acre minimum

Zoning Designations

- 908 Northstar Drive - FOR-B-X-AO 160 AC. MIN
- 950 – 962 Northstar Drive - RM-Ds-PD=15
- 4001 – 8001 Northstar Drive - RES-Ds-PD=15
- NPOA Recreation Center - FOR-B-X-AO 160 AC. MIN

The 5.33-acre study area encompassing the project site is located within the northern high Sierra Nevada. Elevations within the project site vary from approximately 6,220 feet above mean sea level (AMSL) along the northern boundary of the site (908 Northstar Drive) to 6,360 feet AMSL along the southern boundary (the NPOA Recreation Center). Topography consists of moderately sloping valleys and hillsides. The region surrounding the project site receives approximately 31 inches of precipitation and 202 inches of snowfall annually. Average annual temperatures range from approximately 26 to 60 degrees F, with average monthly lows of 14 to 41 degrees F and average monthly highs of 40 to 83 degrees F (US Climate Data 2023).

There are four soil types mapped on the project site, as shown on Figure 6, Project Soils: Fugawee-Tahoma complex, 2 to 30 percent slopes; Jorge very stony sandy loam, 30 to 50 percent slopes; Jorge-Cryumbrepts, wet-Tahoma complex, 2 to 30 percent slopes; and Jorge-Tahoma complex, 2 to 30 percent slopes (USDA 2021a). The Jorge-Tahoma complex is the only hydric soil onsite; however, this mapping unit is limited to hardscape and landscaped areas within the Village at Northstar (USDA 2021b).

The project site is located within the Truckee River and Prosser Creek watershed, which drains approximately 195 square miles in Placer and Nevada counties. The U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory identifies two aquatic resources on or adjacent to the project site: one freshwater pond near the northern portion of the project site and one freshwater forested/shrub wetland near the southeastern extent of the site (USFWS 2021). According to Federal Emergency Management Agency (FEMA) Flood Zone data, the project site is not within a 100-year floodplain (FEMA 2021). Surface run-off at the 908 Northstar Drive parcel is directed to a constructed stormwater ditch that conveys water under the access road along this property and to the detention basin east of the project site. Surface run-off along Northstar Drive and in the Village at Northstar is generally directed to constructed roadside ditches and other stormwater conveyance systems, as well as one tributary to West Martis Creek at the southeastern extent of the project site.

As shown in Figures 7A and 7B, Vegetation Communities, the project site consists of three vegetation communities or other land cover types (in order of dominance onsite): developed, mixed coniferous forest, and riparian scrub along an unnamed tributary to West Martis Creek. The developed land cover includes a mix of hardscaped and landscaped areas, including Northstar Drive, paved driveways, parking lots, buildings, and disturbed road shoulders.

2.5 Project Components

Figure 8, NCSD Wood Energy System Process, demonstrates the primary steps in the process of converting woody biomass material to thermal energy and distributing that energy to buildings and other facilities. Each of the project components are described in detail below.

Wood Energy Utility Facility

The project proposes to construct an approximately 6,000 square-foot building at 908 Northstar Drive to house the Wood Energy Utility Facility, which would include two 1-megawatt boilers, a thermal storage tank, a fuel storage bin, and a fuel metering bin. The boilers would include emissions control measures to reduce emissions of particulate matter and nitrogen oxides. Wood chips would be placed on a conveyor belt, pass through metering and stoker augers, and then into the combustor. As the woody biomass is combusted,

the resulting heat would heat a closed water loop within each boiler. After passing through emission control systems, gases from combustion would be directed by a fan through the steam stack. Ash remaining from combustion and emission control systems would be conveyed to a hopper bin and stored until there is sufficient volume to be removed and off-hauled by trailer. It is estimated that the wood energy system would generate between 140 and 260 tons of ash per year. Ash would be off-hauled and delivered to farms in Sierra Valley for use as soil amendments or disposed of off-site at a transfer station or landfill.

Fuel Sources

Woody biomass that would be used by the project would include materials generated from NCSD's existing defensible space program and forest fuels management program and other regionally generated woody biomass, all of which would be processed by TTSD. NCSD anticipates receiving approximately 3,800 BDT of woody biomass from TTSD annually, which would include between approximately 400 and 750 BDT of woody biomass generated from the NCSD's defensible space and forest fuels management programs.

TTSD receives biomass materials collected throughout the Truckee-North Tahoe region and generally disposes of this material at four locations: the Rio Bravo-Rocklin and Honey Lake Power electrical generation facilities, which burn woody biomass to generate electricity; Lockwood Landfill outside Reno, where biomass is used as alternative daily cover; and Full Circle Compost in Minden, Nevada. In the near-term, the extent of woody biomass material transported to these locations would be reduced as a result of NCSD acquiring approximately 3,800 BDT of woody biomass annually.

Under NCSD's existing defensible space program and forest fuels management program, woody biomass is collected for approximately six months each year. The majority of this material is chipped onsite and trucked to TTSD for distribution to the end-users noted above, and a portion of it is disposed of through onsite pile burning. NCSD's defensible space program accepts woody biomass that has been cleared around homes, businesses, and other structures in the local community to reduce the likelihood and impact of fires occurring in the Wildland Urban Interface and to allow better access for firefighting crews in the event of wildfires. Forest fuels management projects conducted annually by NCSD and Northstar Fire Department to remove dead and diseased trees and other hazardous wildfire fuel from the surrounding forests in order to improve habitat and watershed health also produce significant quantities of residual, non-merchantable wood. The existing forest fuels management and defensible space programs generated more than 11,000 cubic yards or about 850 BDT of residual woody biomass in 2020. The existing processes in which woody biomass materials are managed and used in the region as well as the proposed process for use of woody biomass within the proposed NCSD Wood Energy System are shown in Figure 3.

As part of NCSD's existing forest fuels management program, NCSD is seeking to procure a rubber track crawler carrier, or similar equipment, to allow for recovery of three additional sources of woody biomass currently being produced as a byproduct of its forest fuels management operations. The crawler carrier would allow for collection of materials that are currently managed through 1) mastication and broadcast chipping, 2) open pile burning, and 3) timber harvest residuals (where material is left on the ground rather than being chipped and broadcast). It is estimated that these three sources of woody biomass combined could yield an additional 2,000 cubic yards of green wood chips per year, which would be transported to TTSD for processing.

Woody biomass obtained from TTSD would be transported to the Wood Energy Utility Facility via either a walking floor trailer or dump truck. It would be stored in a fuel storage bin sized to accommodate at least a one-week supply of woody biomass under normal operating conditions.

Thermal Energy Distribution

As shown in Figure 9, NCSD Wood Energy System Components, and Figure 10, Connected Facilities Approximate Heating Energy Demand, the proposed wood energy system would serve a range of residential and commercial space heating, domestic hot water, swimming pools/spas, and potentially snow melt in the Village at Northstar plaza. These land uses currently consume more than 50,000 MMBtu of energy from natural gas per year. The proposed project would provide the potential to offset approximately $500,000 of annual natural gas purchases, based on gas rates from late 2021/early 2022.

Project construction would include digging a 30-inch-wide trench approximately 4 feet deep along Northstar Drive between the Wood Energy Utility Facility and the Village at Northstar, installing either two or four 8-inch diameter pre-insulated steel pipes within the trench, and backfilling the trench. The trench would generally be located below the existing pavement, and in some cases below-grade adjacent to the existing pavement. Upon reaching the Village at Northstar, the below-grade pipeline would be connected to the existing heating systems at each building and facility that is proposed to receive heat from the wood energy system (these buildings are referred to in this Initial Study as the connected facilities). The project would include installing a heat exchanger and meter inside the existing mechanical rooms for each connected facility and creating a tie-in between the exchanger and the existing heating and ventilation system (HVAC) return for each facility. The distribution pipeline would carry heated water released from the thermal storage tank, which would then heat the return water piping on the existing boiler systems. Because the thermal energy distribution pipeline would be separated from individual building loops via a closely spaced tee connection for hydraulic separation at the heat exchanger, there would be no potential for mixing with individual building loops. No alterations to the existing buildings would occur other than installation of equipment within the existing mechanical rooms.

At the southeast end of the Village at Northstar, another trench would be dug and below-grade pipeline segment installed to extend the thermal energy distribution to the NPOA Recreation Center. There is a creek that flows between the Village at Northstar and the NPOA Recreation Center. There are two existing bridges that cross over the creek. The pipeline would be attached to the underside of the southerly of these two bridges.

Operational Characteristics

The proposed connected facilities include 314 residential units, approximately 680,000 square feet of commercial space, and 9 pools and spas that hold a total of 340,000 gallons of water. No changes to the maximum occupancy, uses, or operation of these facilities would result from the project. In addition to these facilities, the thermal energy would potentially be used to melt snow within the Village at Northstar plaza if the limited existing system is expanded. The thermal energy distribution pipeline could tie into the boiler room that serves the existing snow melt system.

The proposed project is designed to meet peak winter heating demands for the connected facilities of approximately 6.8 MMBtu/hr. During summer months, the plant would operate at approximately 25 percent

capacity to meet the summer heating demand of approximately 2.2 MMBtu/hr. It is expected that the operation and maintenance of the wood energy system would require approximately 10 labor hours per week, which would be met with NCSD's existing Operations Department staff.

There would be no changes in truck traffic associated with hauling wood generated by NSCD's existing defensible space and forest fuel management program to the TTSD MRF. Operating the project would require new truck traffic between TTSD and 908 Northstar Drive for fuel deliveries and ash disposal pickups. Fuel delivery would be accomplished using large chip vans (tractor trailers) and ash disposal would be made with 30-yard container trailers. NCSD anticipates that the Wood Energy Utility Facility would process 3,800 BDT of fuel (wood chips) annually. At an average fuel moisture content of 20 percent, this would entail the import of approximately 4,750 wet tons or 33,000 cubic yards of fuel. The chip vans used for delivery can hold between 100 and 120 cubic yards, thus the project would require between 275 and 330 round-trip truck trips per year. It is expected that there would be up to two truck deliveries per day in winter, with less frequent deliveries in other seasons. Ash would typically be removed once per week in winter and possibly less frequently in other seasons. Thus, at peak operation of the Wood Energy Utility Facility, there would be a maximum of three inbound and three outbound trips on a given day. It is noted that the Wood Energy Utility Facility site recently supported an outdoor oriented charter school/daycare center. The prior building at this site was demolished in fall 2022; the school/daycare was operating at maximum building capacity of 78 people (students and staff) prior to vacating the building. Operation of the Wood Energy System would generate fewer daily traffic trips than the prior school/daycare center.

Trucks bringing fuel to the Wood Energy Utility Facility from the TTSD MRF would travel on Cabin Creek Road to northbound SR 89, then east on I-80 to SR 267, and then along Northstar Drive. This would eliminate some existing truck trips that carry material to Rio Bravo-Rocklin, Honey Lake Power in Lassen County, Lockwood Landfill outside Reno, and Full Circle Compost in Minden, Nevada. Trucks off-hauling ash from the Wood Energy Utility Facility would travel in the opposite direction on the same route to deliver material to the MRF or would travel on SR 89 north of Truckee to deliver material to farms in the Sierra Valley.

The existing natural gas boilers at each of the connected facilities would continue to operate as they currently do, firing automatically when the proposed wood energy system boilers are unable to maintain the building hot water temperature setpoint either due to peak loads above the proposed wood energy system capacity or to loads below the minimum turndown of the proposed wood energy system boilers. The existing natural gas boilers also would provide redundancy for when the Wood Energy Utility Facility is down for routine or periodic maintenance.

Project Implementation

As noted above, NCSD has completed a Preliminary Feasibility Study for the proposed project (Wildephor 2020). NCSD has also identified vendors for the system components, including one vendor to provide the boiler system supply, installation, and commissioning (including all fuel handling, emissions control, and thermal storage elements) and separate vendors for design and construction of the Wood Energy Utility Facility, thermal energy distribution pipeline, and building interconnections. NCSD would also enter into an annual maintenance contract with the selected vendor for the boiler system supply, installation, and commissioning.

Detailed plans for grading, excavation, trenching, pipeline installation, and construction of the Wood Energy Utility Facility have been developed and are provided in Appendix A. The plans include use of best management practices (BMPs) to control for soil erosion, protect trees that are proposed to be retained onsite, and protect water quality in stormwater runoff and downstream aquatic resources.

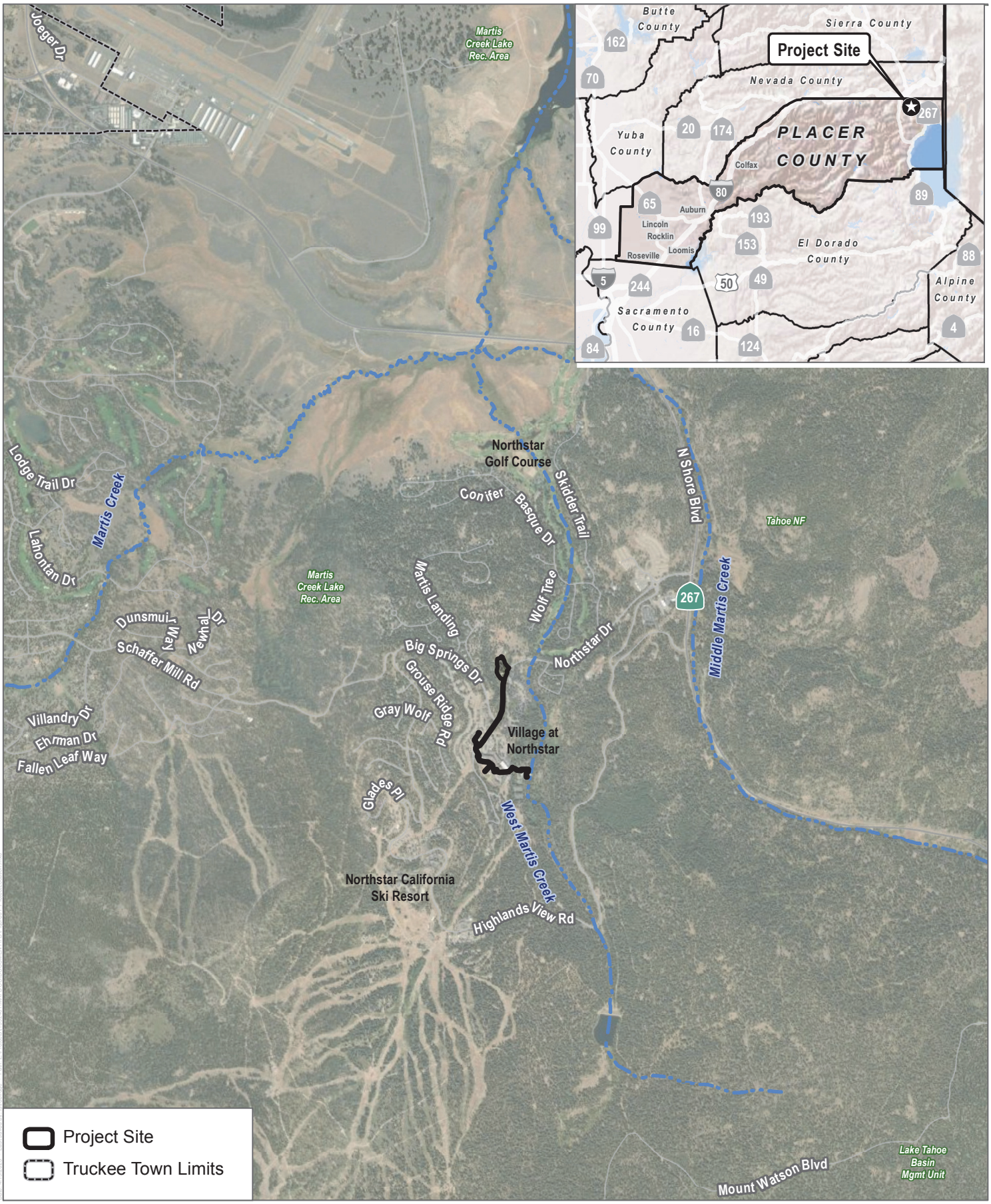
2.6 Project Construction

Project construction at the 908 Northstar Drive location would consist of grading and excavation, removal of four trees, creation of a new stormwater infiltration basin, modification of the existing stormwater infiltration basin, construction of the Wood Energy Utility Facility and equipment installation. Project construction would also include trenching along Northstar Drive, installation of the thermal energy distribution pipeline, backfilling the trench, installation of heat exchangers inside each connected facility's existing mechanical room, and connection of the energy distribution pipeline to the existing HVAC system returns.

Construction of the proposed project is anticipated to occur between September 2023 and October 2024, as shown in Table 1, Approximate Construction Schedule.

Table 1. Approximate Construction Schedule

Construction Phase	Months
Grading at 908 Northstar Drive	September 2023 - October 2023
Trenching and pipeline installation	September 2023 - October 2023
Wood Energy Utility Facility equipment installation	May 2024 – August 2024
Pipeline connections to existing buildings	May 2024 – October 2024
Wood Energy Utility Facility building construction	July 2024 – September 2024



SOURCE: ESRI Imagery 2021, Open Street Map 2019

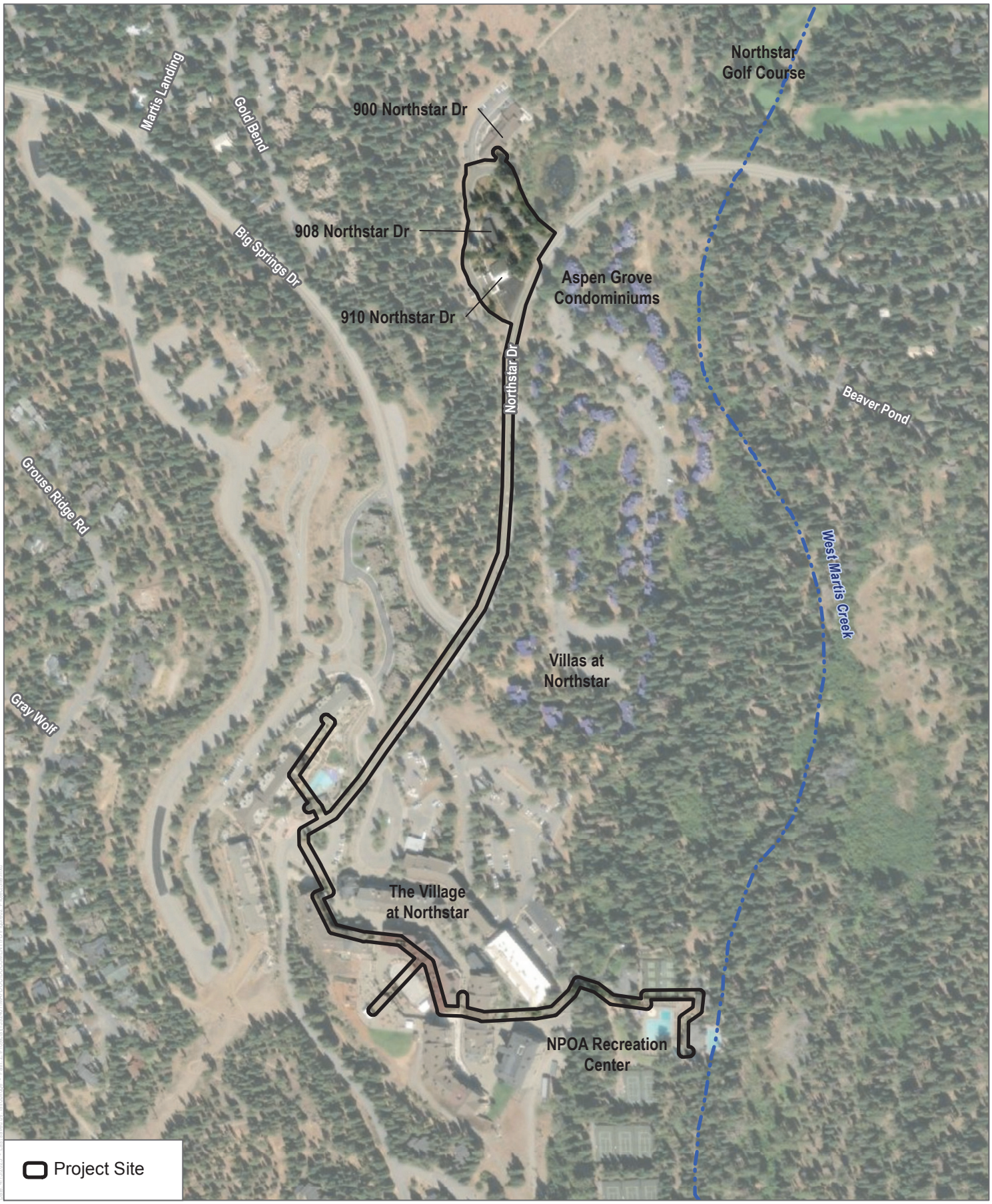
DUDEK

0 1,500 3,000 Feet

FIGURE 1

Project Location

Northstar Community Services District Wood Energy System Initial Study



SOURCE: ESRI Imagery 2022, Open Street Map 2019

DUDEK

0 200 400 Feet

FIGURE 2

Project Site

Northstar Community Services District Wood Energy System Initial Study

WOODY BIOMASS UTILIZATION PROCESSES

Northstar Community Services District

Existing Processes

Proposed Process

Net benefit C02, reduces particulate matter, reduces methane, reduced trucking distance introduces no new carbon into the system

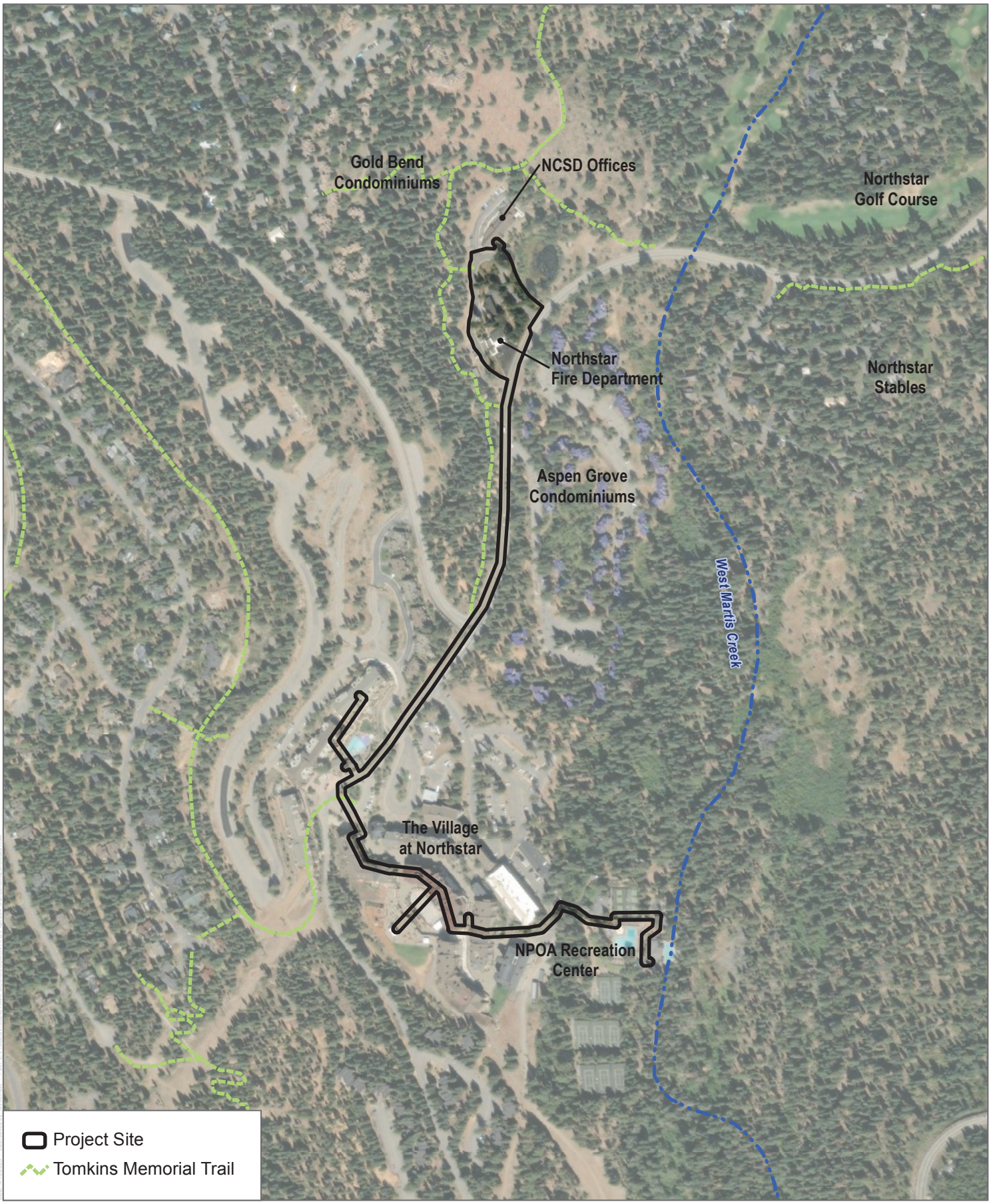
$ Net Revenue To Fund Additional Wildfire Protection $

FIGURE 3

Woody Biomass Utilization Processes

Northstar Community Services District Wood Energy System Initial Study

DUDEK



SOURCE: ESRI Imagery 2022, Open Street Map 2019

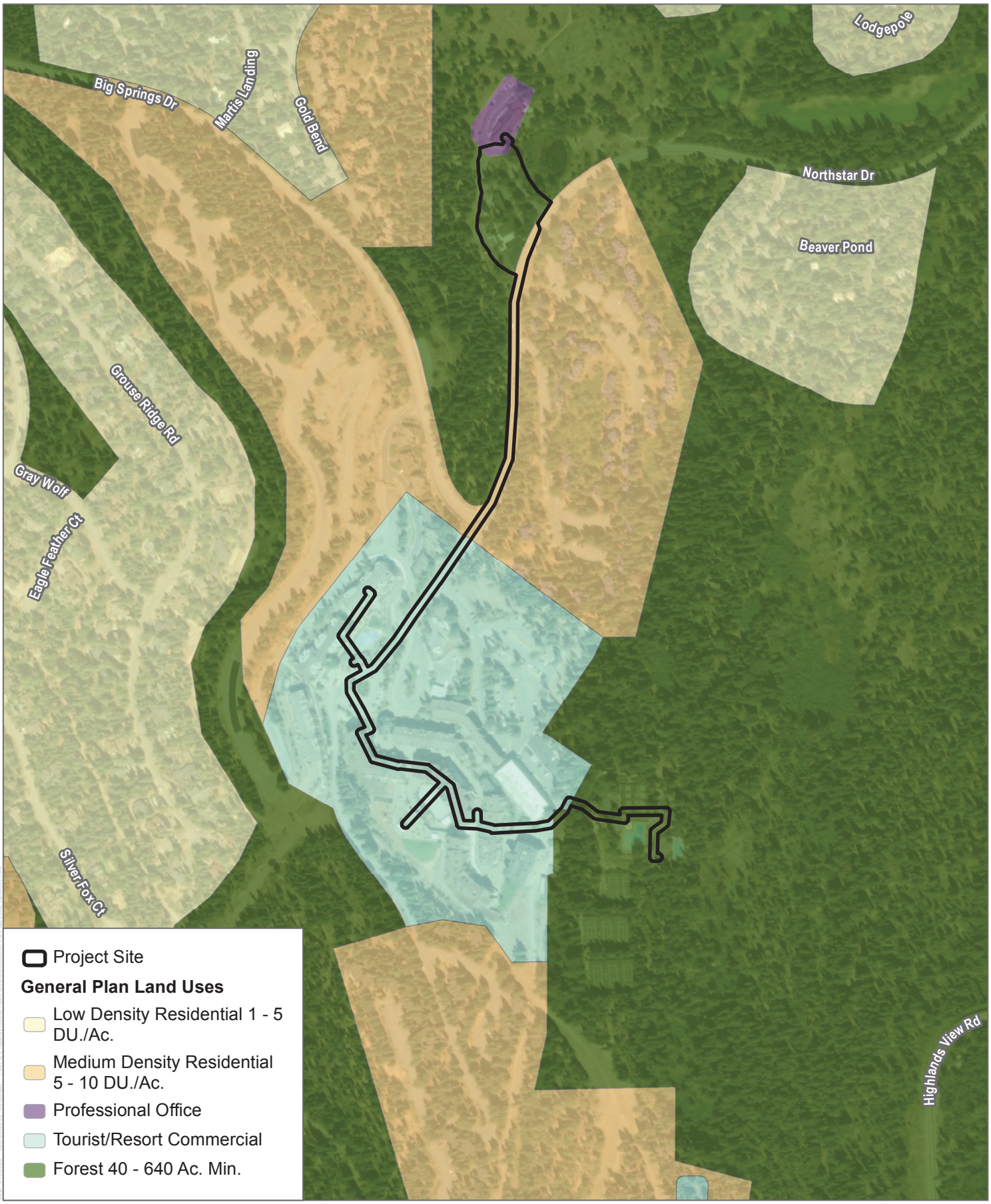
DUDEK

0 250 500 Feet

FIGURE 4

Surrounding Land Use

Northstar Community Services District Wood Energy System Initial Study



SOURCE: ESRI Imagery 2022, Placer County 2021, Open Street Map 2019

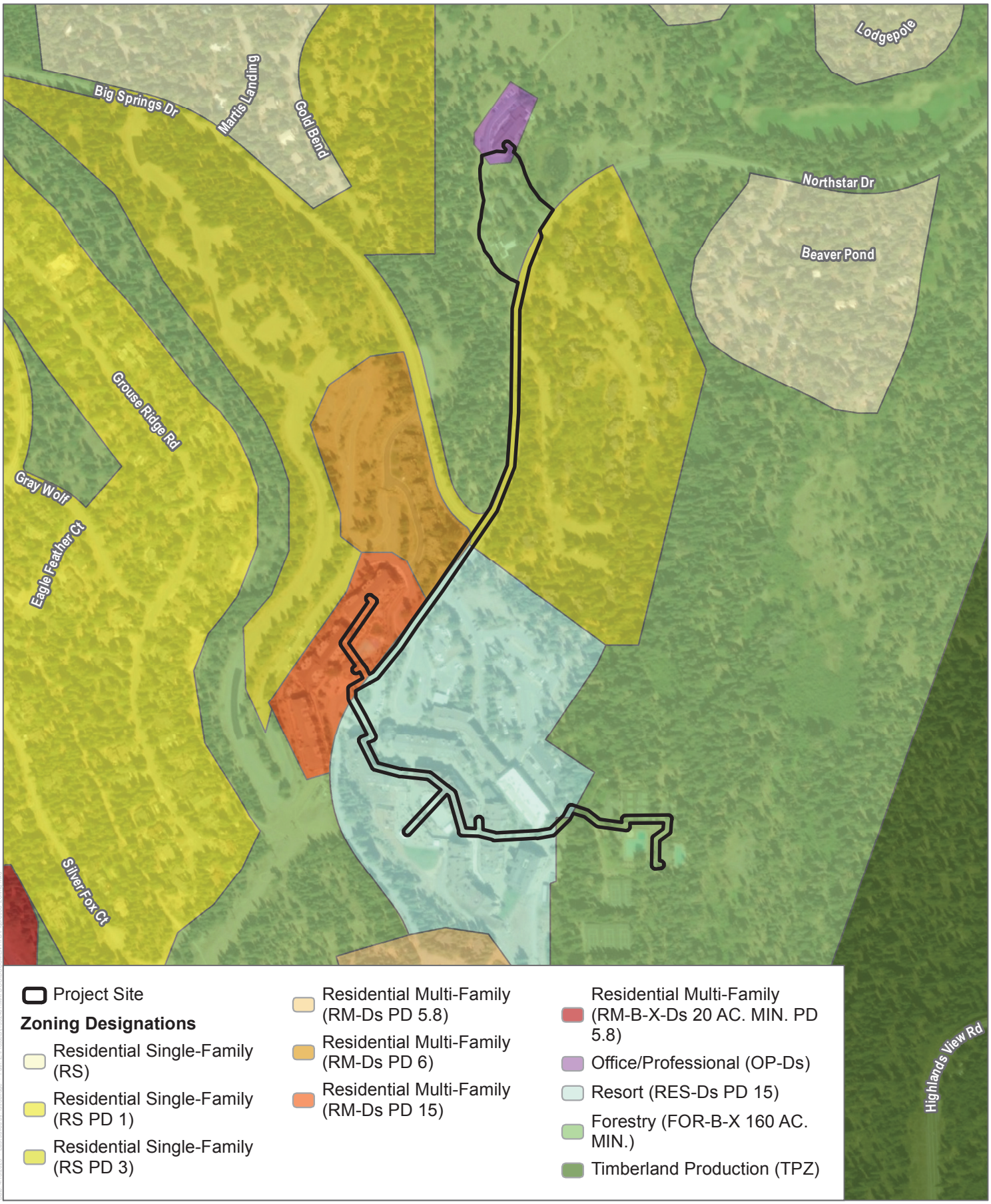
DUDEK

0 250 500 Feet

FIGURE 5A

General Plan Designations

Northstar Community Services District Wood Energy System Initial Study



SOURCE: ESRI Imagery 2022, Placer County 2021, Open Street Map 2019

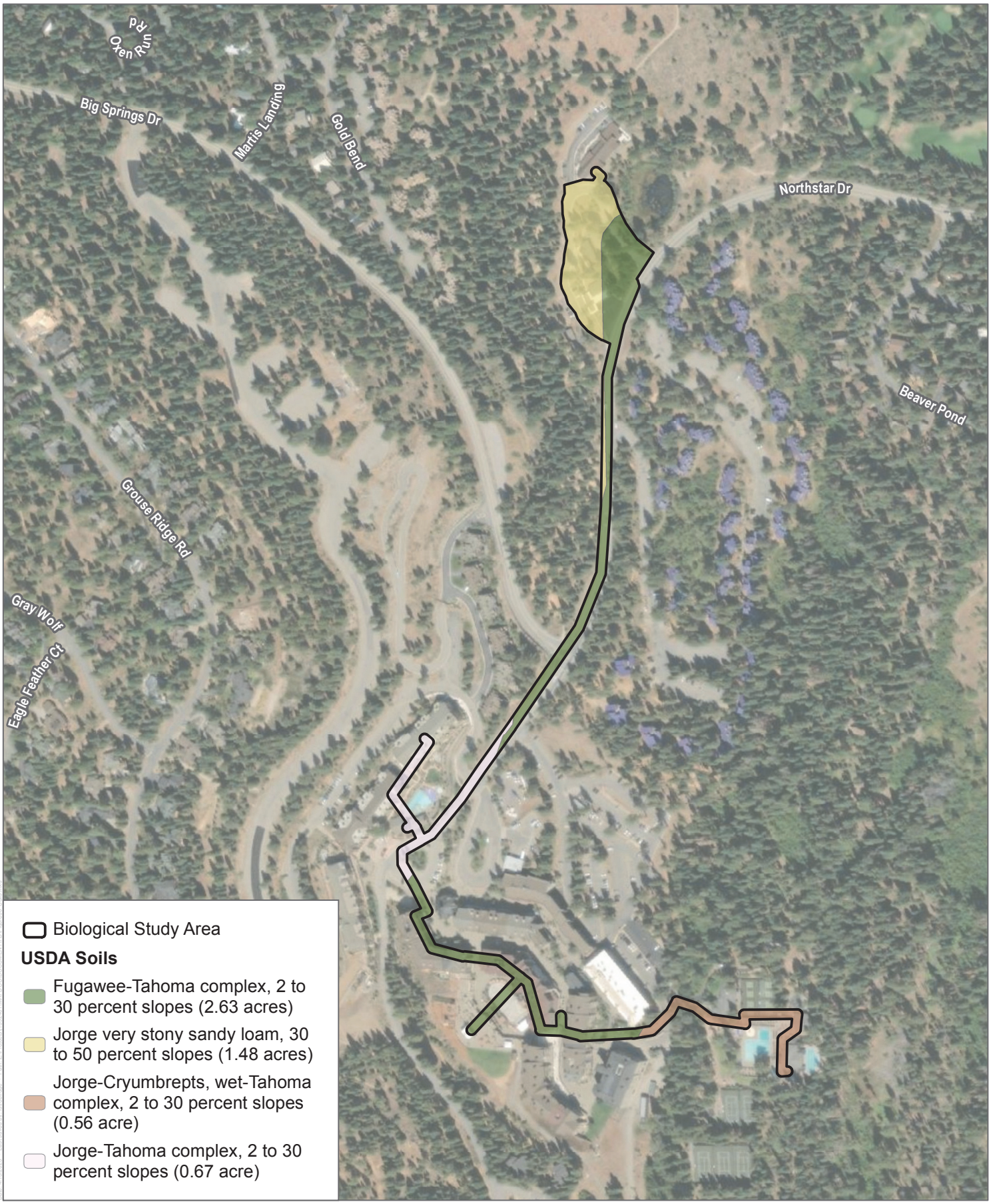
DUDEK

0 250 500 Feet

FIGURE 5B

Zoning Designations

Northstar Community Services District Wood Energy System Initial Study



SOURCE: ESRI Imagery 2021, Open Street Map 2019, USDA 2009

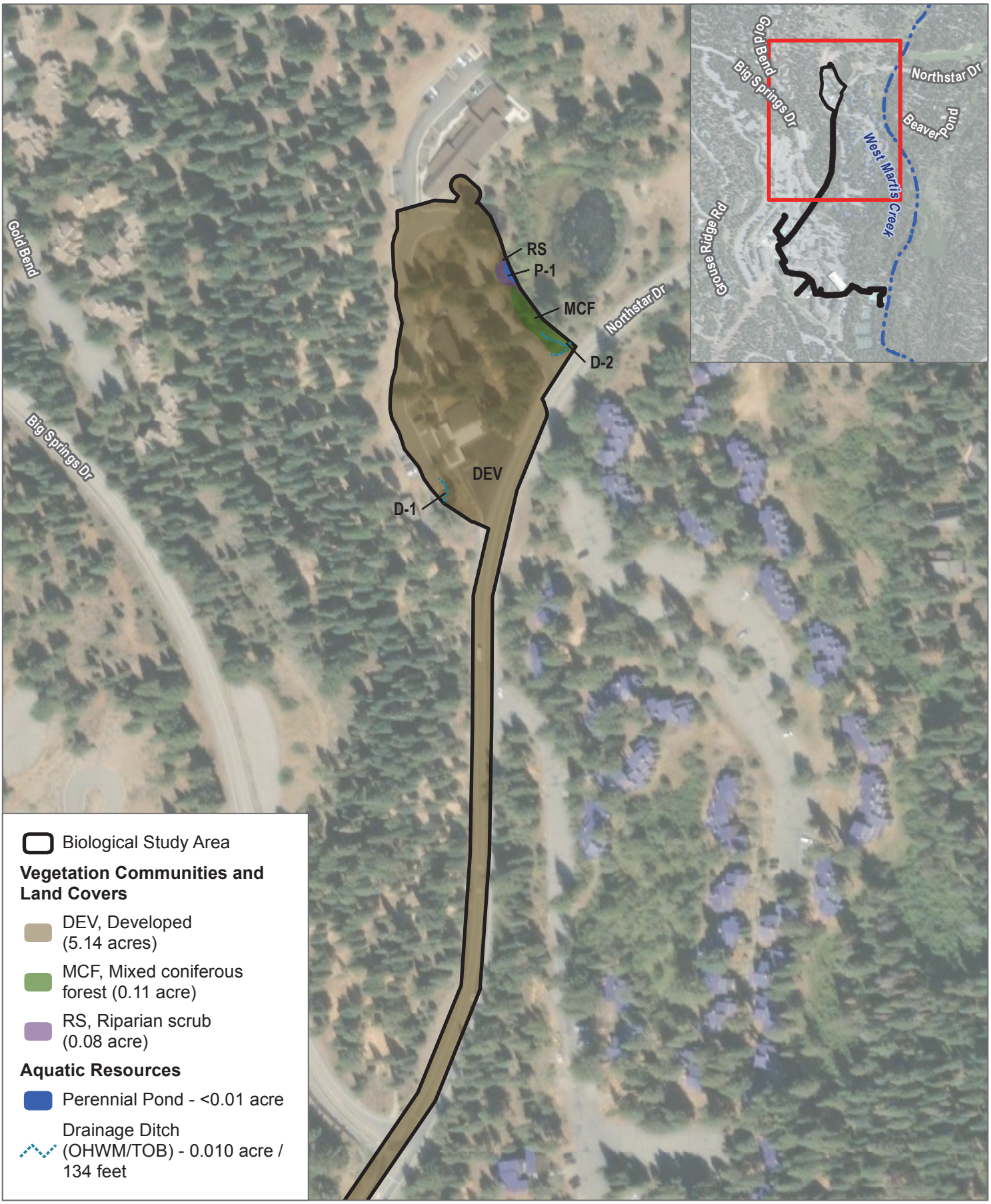
DUDEK

0 200 400 Feet

FIGURE 6

Project Soils

Northstar Community Services District Wood Energy System Initial Study



SOURCE: ESRI Imagery 2021, Open Street Map 2019

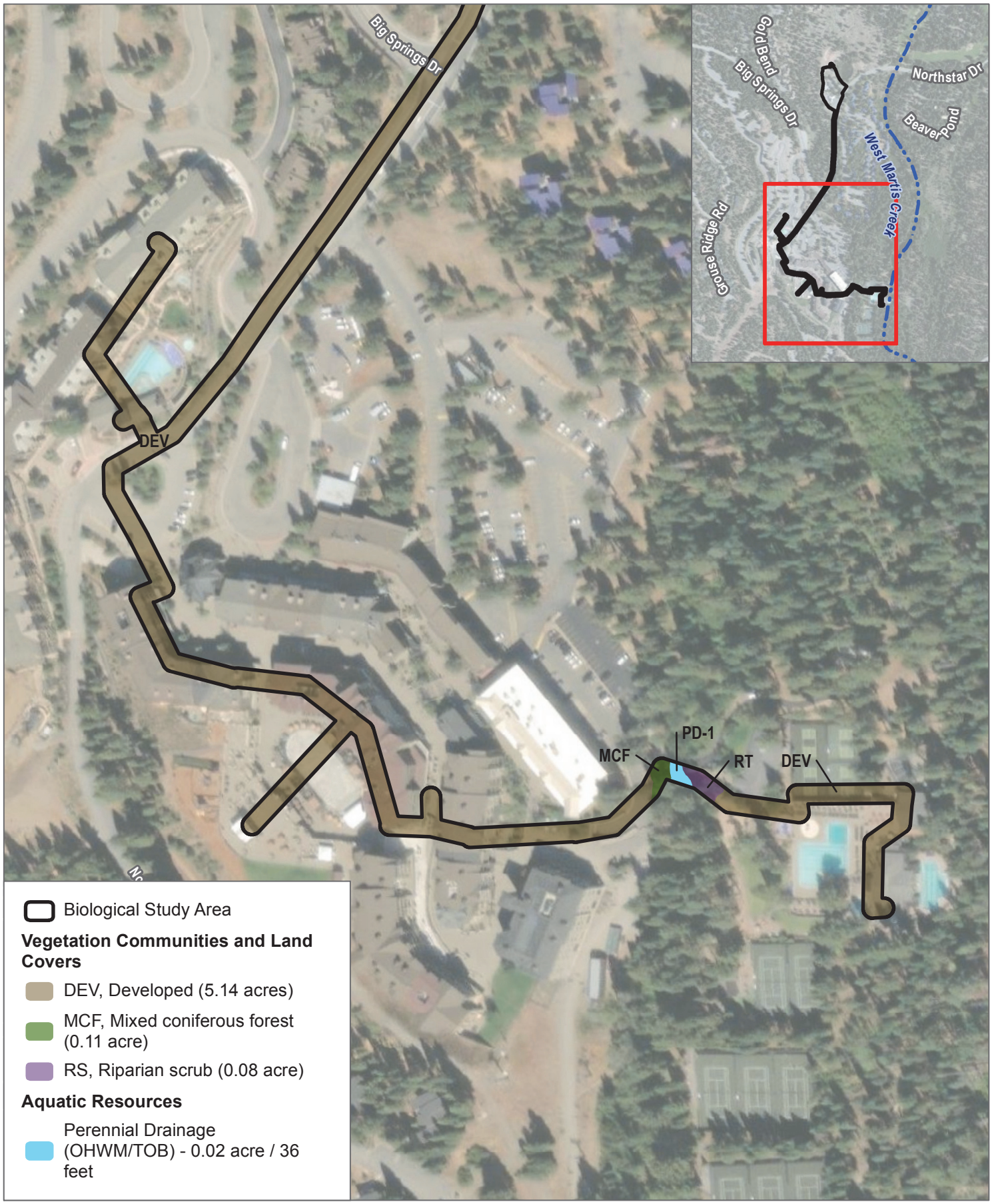
DUDEK

0 100 200 Feet

FIGURE 7A

Vegetation Communities - North

Northstar Community Services District Wood Energy System Initial Study



SOURCE: ESRI Imagery 2021, Open Street Map 2019

DUDEK

0 100 200 Feet

FIGURE 7B

Vegetation Communities - South

Northstar Community Services District Wood Energy System Initial Study

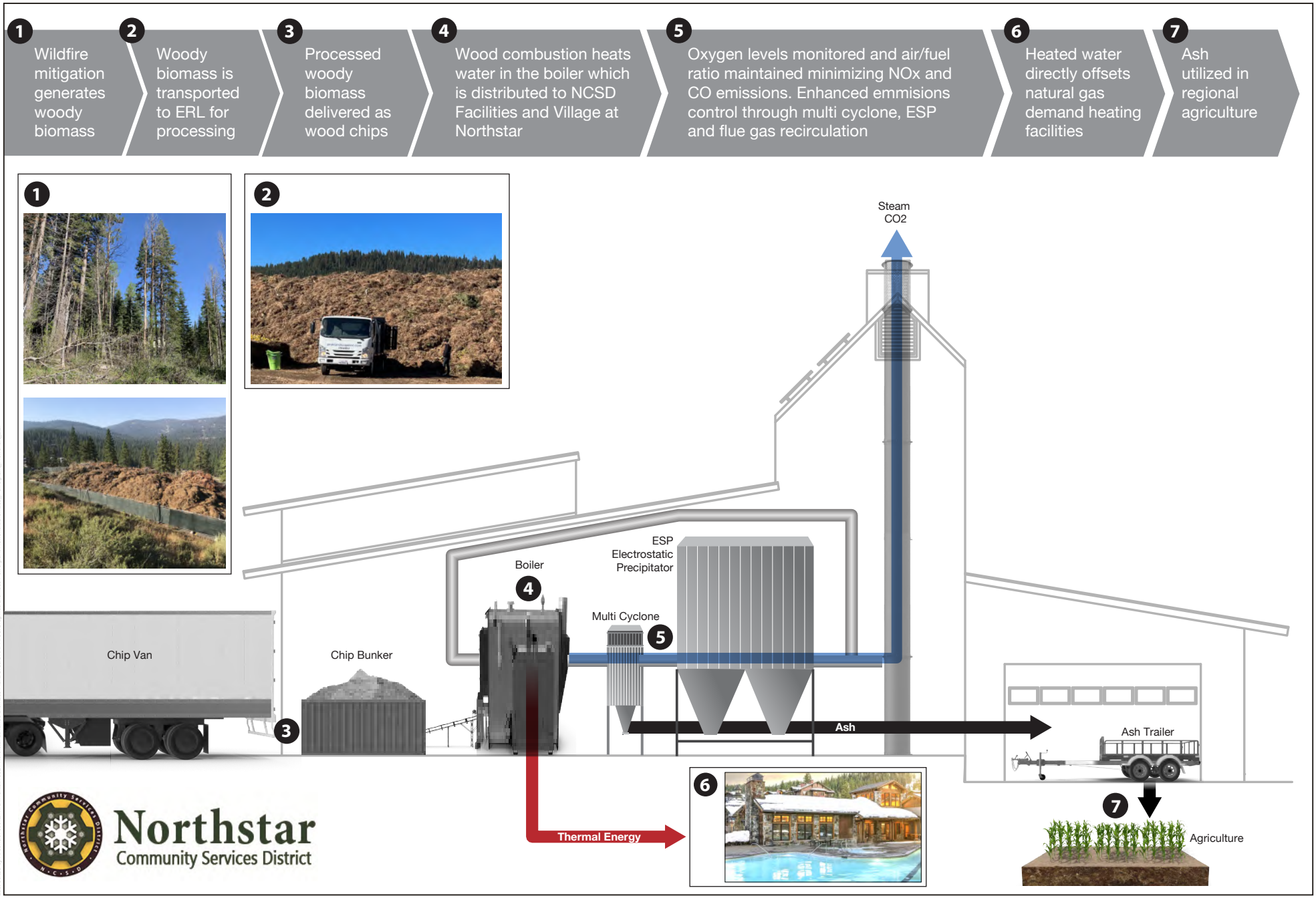


FIGURE 8

NCSD Wood Energy System Overview

Northstar Community Services District Wood Energy System Initial Study

DUDEK

Northstar
Community Services District

Wood Energy Utility Facility

Thermal Energy Distribution

NCSD Administrative Offices and Fire Station

Larkspur Ln.

Thomkins Memorial Trail

Silver Strike

Aspen Grove

Northstar Dr.

Northstar Dr.

Village at Northstar

Northstar POA Recreation Center

Hazardous Forest Biomass

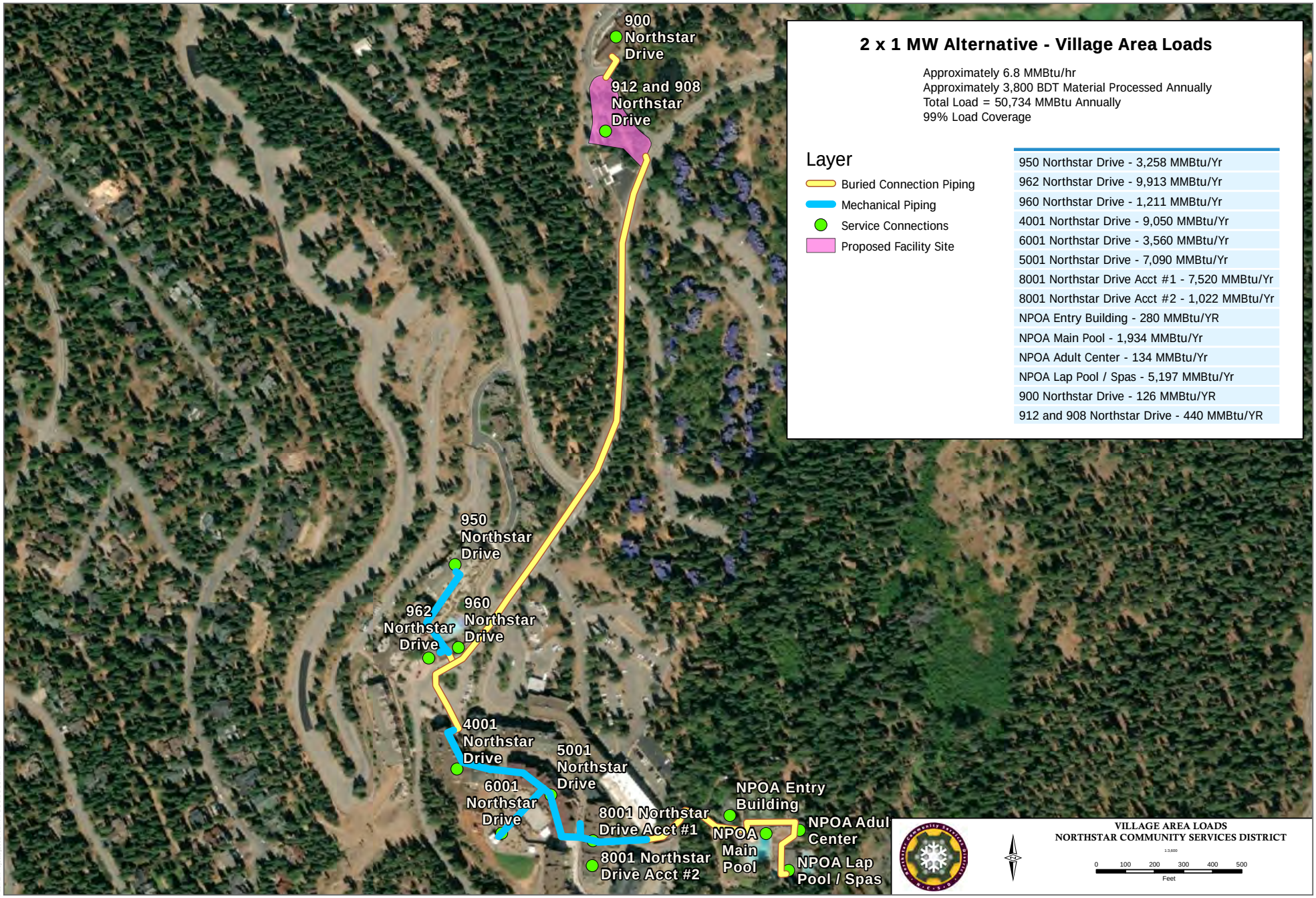
SOURCE: Google Earth Pro, Mapcreator

FIGURE 9

NCSD Wood Energy System Components

Northstar Community Services District NCSD Wood Energy System Initial Study

DUDEK



Source: Northstar Community Service District 2022

FIGURE 10

Connected Facilities Approximate Heating Energy Demand

3 Initial Study Checklist

1. Project title:

NCSD Wood Energy System

2. Lead agency name and address:

Northstar Community Services District
900 Northstar Drive
Truckee, CA 96161

3. Contact person and phone number:

Eric Martin, Director of Public Works
(530) 562-0747 Ext 133

4. Project location:

As shown in Figure 2, Project Site, project activities would occur within previously disturbed areas of the Northstar California community, including at the existing developed area at 908 Northstar Drive, extending along Northstar Drive, within the Village at Northstar, and within the NPOA Recreation Center. As shown in Figure 4, Surrounding Land Uses, the Northstar California community includes residential, commercial and recreational uses as well as the NCSD administrative offices and Northstar Fire Department station.

5. Project sponsor's name and address:

Same as Lead Agency

6. General plan designation:

As shown on Figure 5A, General Plan Designations, the project site carries the following land use designations under the Placer County Martis Valley Community Plan (Placer County 2003):

- 908 Northstar Drive - Low Density Residential, 1-5 dwelling units per acre (du/ac)
- 950 – 962 Northstar Drive and 4001 – 8001 Northstar Drive - Tourist/Resort Commercial
- NPOA Recreation Center - Forest 40-640 acre minimum

7. Zoning:

As shown on Figure 5B, Zoning Designations, the project site carries the following zoning designations under the Placer County Zoning Ordinance (Placer County 2023):

- 908 Northstar Drive and NPOA Recreation Center - FOR-B-X-AO 160 AC. MIN
- 950 – 962 Northstar Drive - RM-Ds-PD=15
- 4001 – 8001 Northstar Drive - RES-Ds-PD=15
- NPOA Recreation Center - FOR-B-X-AO 160 AC. MIN

8. **Description of project. (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary):**

Refer to Section 2, Project Description.

9. **Surrounding land uses and setting (Briefly describe the project's surroundings):**

As discussed in more detail in Section 2 and shown in Figure 4, the project site is located within the Northstar California ski resort community. The proposed Wood Energy Utility Facility would be located at 908 Northstar Drive, proximate to the NCSD offices and the Northstar Fire Department station. Medium-density residential condominium neighborhoods are located west/northwest of the Northstar Fire Department station and on the southerly side of Northstar Drive. The thermal energy distribution pipeline would be installed along Northstar Drive between the Wood Energy Utility Facility and the Village at Northstar. The Tomkins Memorial Trail passes west of the Northstar Fire Department station and along a portion of Northstar Drive. The Village at Northstar includes a mixture of commercial buildings and hotels. The thermal energy distribution pipeline would end at the NPOA Recreation Center, as shown in Figure 2 and in Figure 9, NCSD Wood Energy System Components.

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

Placer County – Conditional Use Permit. Under Placer County Code Section 17.12.010, a Conditional use Permit is required for electric-generating plants while a Minor Use Permit is required for public utility facilities within the Forestry Zone District. Through consultation with Placer County Planning Services Division staff, NCSD has opted to apply for a Conditional Use Permit even though the proposed Wood Energy Utility Facility would not generate electricity because the Conditional Use Permit process would support a more robust and comprehensive project review.

Placer County Air Pollution Control District (PCAPCD) – Authority to Construct and Permit to Operate. The proposed Wood Energy Utility Facility would constitute a stationary source of air pollutant emissions and thus issuance of an Authority to Construct and Permit to Operate from PCAPCD would be required.

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

NCSD has not received any requests under Public Resources Code Section 21080.3.1 for notification of projects subject to CEQA from California Native American tribes traditionally and culturally affiliated with the project area. Thus no notification/invitation to request consultation was provided to any California Native American tribes.

Environmental Factors Potentially Affected

This Initial Study analyzes the environmental impacts of the project consistent with the format and analysis prompts provided in Appendix G of the CEQA Guidelines. NCSD finds that the proposed project would result in significant and potentially significant environmental impacts associated with biological resources, geology and soils, hydrology and water quality, and tribal cultural resources as indicated in the checkboxes below and evaluated throughout this Initial Study. These impacts would be reduced to less than significant levels with implementation of the mitigation measures identified throughout this Initial Study.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☒ Biological Resources	☐ Cultural Resources	☐ Energy
☒ Geology and Soils	☐ Greenhouse Gas Emissions	☐ Hazards and Hazardous Materials
☒ Hydrology and Water Quality	☐ Land Use and Planning	☐ Mineral Resources
☐ Noise	☐ Population and Housing	☐ Public Services
☐ Recreation	☐ Transportation	☒ Tribal Cultural Resources
☐ Utilities and Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

Mitigation Measures

NCSD finds that implementing the mitigation measures identified in Table 2 would reduce the project's impacts to less-than-significant levels by avoiding, minimizing, compensating for, or offsetting the impacts. The proposed project would result in no impacts that would remain significant and unavoidable following implementation of the identified mitigation measures.

Table 2. NCSD Wood Energy System Mitigation Measures

Measure Number	Mitigation Measure Text
Biological Resources	
MM-BIO-1	**Aquatic Resources and Special-Status Plant Protection.** The Grading Plan for construction activities at 908 Northstar Drive shall identify placement of exclusion fencing, flagging, or similar between the pond and associated riparian vegetation located east of the project site and the limits of disturbance during construction. The Grading Plan shall also identify erosion control and spill prevention measures to be implemented at this location to ensure that material that may erode or runoff from the project site does not enter the pond and associated riparian vegetation during construction.

Table 2. NCSD Wood Energy System Mitigation Measures

Measure Number	Mitigation Measure Text
MM-BIO-2	**Nesting Bird and Raptor Avoidance.** NCSD shall retain a qualified biologist to implement the following procedures during any project related ground disturbance, vegetation removal, grading, trenching, and construction activities: • Conduct a pre-construction survey for nesting birds no more than two days prior to any vegetation or structure removal or ground-disturbing activities conducted during the nesting season (March through August). The survey shall cover the limits of construction and suitable nesting habitat within 500 feet for raptors and 100 feet for other nesting birds, as feasible and accessible. • If any active nests are observed during surveys, establish a suitable avoidance buffer from the active nest. The buffer distance will typically range from 50 to 500 feet and shall be determined based on factors such as the species of bird, topographic features, intensity and extent of the disturbance, timing relative to the nesting cycle, and anticipated ground disturbance schedule. Limits of construction to avoid active nests shall be established in the field with flagging, fencing, or other appropriate barriers and should be maintained until the chicks have fledged and the nests are no longer active, as determined by the qualified biologist. • If vegetation removal activities are delayed, additional nest surveys shall be conducted such that no more than 7 days elapse between the survey and vegetation removal activities. • If an active nest is identified in or adjacent to the construction zone after construction has started, work in the vicinity of the nest shall be halted until the qualified biologist can provide appropriate avoidance and minimization measures to ensure that the nest is not disturbed by construction. Appropriate measures may include a no-disturbance buffer until the birds have fledged and/or full-time monitoring by a qualified biologist during construction activities conducted near the nest.
MM-BIO-3	**Tree Protection.** The final Grading Plan and/or Demolition and Temporary BMP Plan shall include placement of tree protection fencing around all trees to be retained that are within 75 feet of grading, excavation, and trenching. Tree protection fencing shall consist of a minimum 4-foot-high plastic mesh fence or chain link fence and shall be installed at the outermost edge of the critical root zone of each protected tree or group of protected trees. A minimum of one sign shall be installed on the fence around each individual protected tree. Signs placed on fencing around a group of protected trees shall be placed at approximately 50-foot intervals. The size of each sign must be a minimum of 8.5 inches by 11 inches and must contain the following language: PROTECTED TREE. DO NOT REMOVE SIGN OR FENCE. Protective fencing shall remain in place throughout the entire construction period.

Table 2. NCSD Wood Energy System Mitigation Measures

Measure Number	Mitigation Measure Text
Geology and Soils	
MM-GEO-1	**Improvement Plans.** NCSD shall prepare Improvement Plans that show all physical improvements for the project as well as pertinent topographical features both on and offsite. All existing and proposed utilities and easements, onsite and adjacent to the project, which may be affected by planned construction, shall be shown on the plans. NCSD shall retain a third-party qualified plan-check firm to review the Improvement Plans to verify compliance with the Placer County Code. A Building Permit shall not be issued until the Improvement Plans are approved by the third-party plan-check firm. NCSD shall submit to the Placer County Engineering and Surveying Division one copy of the Record Drawings in digital format, one black line hardcopy, and one PDF copy. The digital format is to allow integration with Placer County's Geographic Information System. The final approved blackline hardcopy Record Drawings will be the official document of record.
MM-GEO-2	**Grading, Drainage, and Erosion Control.** The Improvement Plans shall show all proposed grading, drainage improvements, vegetation and tree removal and all work shall conform to provisions of the County Grading Ordinance (Placer County Code Article 15.48) and Stormwater Quality Ordinance (Placer County Code Article 8.28) that are in effect at the time of submittal. No grading, clearing, or tree disturbance shall occur until the Improvement Plans are approved by the third-party plan-check firm. All cut/fill slopes shall be at a maximum of 2:1 (horizontal: vertical) unless a soils report supports a steeper slope. NCSD shall revegetate all disturbed areas. Revegetation, undertaken from April 1 to October 1, shall include regular watering to ensure adequate growth. A winterization plan shall be provided with project Improvement Plans. NCSD shall ensure proper installation and maintenance of erosion control/winterization before, during, and after project construction. Soil stockpiling or borrow areas shall have proper erosion control measures applied for the duration of the construction as specified in the Improvement Plans. The Improvement plans shall also provide for erosion control where roadside drainage is off of the pavement. If, at any time during construction, a field review by County personnel indicates a significant deviation from the proposed grading shown on the Improvement Plans, specifically with regard to slope heights, slope ratios, erosion control, winterization, tree disturbance, and/or pad elevations and configurations, the plans shall be reviewed by the Placer County Engineering and Surveying Division for a determination of substantial conformance to the project approvals prior to any further work proceeding. Failure of the Placer County Engineering and Surveying Division to make a determination of substantial conformance may serve as grounds for the revocation/modification of the project approval by the appropriate hearing body.
MM-GEO-3	**Final Geotechnical Investigation Report.** The Improvement Plan submittal shall include a final geotechnical engineering report produced by a California Registered Civil Engineer or Geotechnical Engineer. The report shall address and make recommendations on the following: A. Road, pavement, and parking area design;

Table 2. NCSD Wood Energy System Mitigation Measures

Measure Number	Mitigation Measure Text
	B. Structural foundations, including retaining wall design (if applicable); C. Grading practices; D. Erosion/winterization; E. Special problems discovered on-site, (i.e., groundwater, expansive/unstable soils, etc.); and F. Slope Stability Once approved by the third-party plan-check firm, two copies of the final report shall be provided to the Placer County Engineering and Surveying Division and one copy to the Placer County Building Services Division for its use. NCSD shall provide for engineering inspection and certification that earthwork has been performed in conformity with recommendations contained in the report.
MM-GEO-4	**Unanticipated Paleontological Resources**. In the event that fossils or fossil bearing deposits are discovered during ground-disturbing activities, excavations within a 50-foot radius of the find shall be temporarily halted or diverted. Ground disturbance work shall cease until a qualified paleontologist determines whether the resource requires further study. The paleontologist shall document the discovery as needed (in accordance with Society of Vertebrate Paleontology standards [Society of Vertebrate Paleontology 2010]), evaluate the potential resource, and assess the significance of the find under the criteria set forth in CEQA Guidelines Section 15064.5. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction activities are allowed to resume at the location of the find. If avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of construction activities on the discovery. All construction activity shall adhere to the recommendations in the excavation plan.
Hydrology and Water Quality	
MM-HYD-1	**Stormwater Quality Management Plan.** As part of the Improvement Plan review process, a Stormwater Quality Management Plan shall be provided to the third-party plan-check firm required under Mitigation Measure GEO-1. The Stormwater Quality Management Plan shall be prepared by a Registered Civil Engineer and shall, at a minimum, include: A written text addressing existing conditions, the effects of the proposed improvements, all appropriate calculations, watershed maps, changes in flows and patterns, and proposed on-and off-site improvements and drainage easements to accommodate flows from this project. The plan shall identify water quality protection features and methods to be used during construction, as well as long-term post-construction water quality measures. The Improvement Plans and Stormwater Quality Management Plan shall provide details showing that storm water run-off peak flows and volumes shall be reduced to pre-project conditions through the installation of retention facilities, which shall be designed in accordance with the requirements of the Placer County Stormwater Management Manual that are in effect at the time of submittal and shall be shown on the Improvement Plans. Prior to any construction commencing, NCSD shall obtain a Waste Discharge Identification Number generated from the State Regional Water Quality Control Board's

Table 2. NCSD Wood Energy System Mitigation Measures

Measure Number	Mitigation Measure Text
	Stormwater Multiple Application & Reports Tracking System. This serves as the Regional Water Quality Control Board approval or permit under the National Pollutant Discharge Elimination System construction storm water quality permit.
MM-HYD-2	**Stormwater Quality Treatment Measures.** The Improvement Plans shall show water quality treatment facilities/Best Management Practices (BMPs) designed according to the guidance of the California Stormwater Quality Association Stormwater Best Management Practice Handbooks for Construction, for New Development/Redevelopment, and for Industrial and Commercial (or other similar source as approved by the Engineering and Surveying Division). Storm drainage from on-and off-site impervious surfaces (including roads) shall be collected and routed through specially designed catch basins, vegetated swales, vaults, infiltration basins, water quality basins, filters, etc. for entrapment of sediment, debris and oils/greases or other identified pollutants, as approved by the third-party plan-check firm. BMPs shall be designed in accordance with the East Placer Storm Water Quality Design Manual for sizing of permanent post-construction BMPs for stormwater quality protection. All permanent BMPs shall be maintained as required to ensure effectiveness. NCSD shall provide for the establishment of vegetation, where specified, by means of proper irrigation. Proof of on-going maintenance, such as contractual evidence, shall be provided to the Placer County Engineering and Surveying Division upon request.
MM-HYD-3	Stormwater Discharge. This project is located within the permit area covered by Placer County's Small Municipal Separate Storm Sewer System Permit (State Water Resources Control Board National Pollutant Discharge Elimination System). Project-related storm water discharges are subject to all applicable requirements of said permit. The project shall implement permanent and operational source control measures as applicable. Source control measures shall be designed for pollutant generating activities or sources consistent with recommendations from the California Stormwater Quality Association Stormwater Best Management Practices Handbook for New Development and Redevelopment, or equivalent manual, and shall be shown on the Improvement Plans. The project is also required to implement Low Impact Development standards designed to reduce runoff, treat storm water, and provide baseline hydromodification management as outlined in the East Placer Storm Water Quality Design Manual.
Tribal Cultural Resources	
MM-TCR-1	**Unanticipated Tribal Cultural Resources.** If potential Tribal Cultural Resources (TCRs) or human remains are discovered during construction activities, all work shall cease within 100 feet of the find (based on the apparent distribution of cultural resources). Examples of potential TCRs include midden soil, artifacts, chipped stone, exotic (non-native) rock, or unusual amounts of baked clay, shell, or bone. A qualified cultural resources specialist and Native American Representative from the traditionally and culturally affiliated Native American Tribe(s) will assess the significance of the find and make recommendations for further evaluation and treatment as necessary. Culturally appropriate treatment that preserves or restores the cultural

Table 2. NCSD Wood Energy System Mitigation Measures

Measure Number	Mitigation Measure Text
	character and integrity of a TCR may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, construction monitoring of further construction activities by Tribal representatives of the traditionally and culturally affiliated Native American Tribe, and/or returning objects to a location within the project area where they will not be subject to future impacts. If human remains are discovered during construction activities, the County Coroner and Native American Heritage Commission shall be contacted immediately. Upon determination by the County Coroner that the find is Native American in origin, the Native American Heritage Commission will assign the Most Likely Descendant(s) who will work with the project proponent to define appropriate treatment and disposition of the burials. Following a review of the find and consultation with appropriate experts, the authority to proceed may be accompanied by the addition of development requirements which provide for protection of the site and/or additional measures necessary to address the unique or sensitive nature of the site. The treatment recommendations made by the cultural resource specialist and the Native American Representative will be documented in the project record. Any recommendations made by these experts that are not implemented, must be documented and explained in the project record. Work in the area(s) of the cultural resource discovery may only proceed after authorization is granted by the Placer County Community Development Resource Agency following coordination with cultural resources experts and tribal representatives as appropriate.

Determination

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

April 20, 2023

Eric Martin, Director of Public Works

Evaluation of Environmental Impacts

3.1 Aesthetics

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
I.	**AESTHETICS** – Except as provided in Public Resources Code Section 21099, would the project**:**				
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c)	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

Setting

The project site is located within the Northstar California community, which is a highly scenic mountain resort area. The community currently includes approximately 840 single-family residences and 1,300 condominium and hotel units. The community is approximately 57 percent built-out, with potential for development of up to 529 additional single-family residences and up to 1,069 additional condominium and hotel units (NCSD 2020).

The aesthetic conditions in the community are characterized by varied topography, areas of dense forest vegetation, maintained landscaping around residential and commercial land uses, low to moderate density residential condominium neighborhoods, and the higher density mixed-use area within Northstar Village. Figures 11A, 11B, and 11C, Representative Photographs, display typical views of the existing development and surrounding vegetation throughout the Northstar California community.

Impact Discussion

a) Would the project have a substantial adverse effect on a scenic vista?

No Impact. A scenic vista is typically defined as a publicly accessible expansive view of a scenic setting, whether that setting is natural or constructed. The Martis Valley Community Plan identifies the Martis Creek Lake National Recreation Area as an important scenic area that affords scenic vistas of adjacent forested areas and mountain peaks in the background (Placer County 2003). None of the components of NCSD Wood Energy System would be visible from Martis Creek Lake National Recreation Area due to the distance between the project site and the recreation area as well as intervening topography, vegetation, and development.

In addition, the Tomkins Memorial Trail affords many scenic vistas of the project region. While these views are not recognized as scenic vistas in any adopted planning documents, they are an important aesthetic resource for residents of and visitors to the Northstar California community. As shown on Figure 4, two segments of the Tomkins Memorial Trail pass near the project site. One segment is a portion of a north-south trending trail that has its southern terminus near the intersection of Northstar Drive and Big Springs Drive and extends northerly past the western side of the Northstar Fire Station and continues northerly generally parallel to Wolf Tree Drive and Basque Drive. The other segment begins at Northstar Drive approximately 400 feet east of the access driveway to the project site at 908 Northstar Drive site and the NCSD administration building at 900 Northstar Drive. This segment trends to the northwest along the east side of the NCSD administration office, then heads westerly to end near Gold Bend Drive. These nearby portions of the Tomkins Memorial Trail Views offer views of and across the project site that are partially screened by trees, as shown in Figure 11A. The existing Fire Station and NCSD office building and the previous building at 908 Northstar Drive are visible between trees. The addition of the proposed Wood Energy Utility Facility to these views would not substantially change the nature or character of the existing views. The northern elevation of the proposed building would also be visible between trees.

The project would not create any new elements that would interfere with or intrude on scenic vistas. The project involves construction of a new building at the location of a previous building addressed as 908 Northstar Drive. As shown in Figure 12, Building Elevations, and in the height exhibit included in Appendix A, the project site is sloped, with the east side approximately 14 feet lower in elevation than the west side. Relative to the average existing grade elevation, the building roof height would be 40.4 feet and the steam stacks would be 42.82 feet high. The stacks are contained within a roof cupola and are not visible. The proposed building would be approximately 10 feet taller than the previous building that was present at the project site, which had a height of approximately 30 feet. The topography and vegetation between the project site and the nearby residential properties would provide substantial screening of potential views of the proposed building, and the proposed building would not introduce any elements that are not similar to existing built environment elements within any scenic vistas or views available in the Northstar California community.

The thermal energy distribution pipeline would be installed below-grade and would not alter any scenic vistas after construction is complete. The heat exchangers would be installed inside the

existing mechanical rooms within each connected facility and thus would also not alter any scenic vistas. No mitigation measures are required.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The project site is not visible from any state scenic highways. State Route (SR) 267 is the nearest state highway to the project site. It is not designated as a scenic highway. The nearest designated scenic highway is Interstate (I) 80 and the nearest highway that is eligible for listing as a state scenic highway is SR 89 (Caltrans 2019). Both I-80 and SR 89 are approximately 8 miles from the project site and no views of the project site are available from either highway. No mitigation measures are required.

c) In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less than Significant Impact. The project area supports a mountain resort community, which is characterized by low-density and medium-density residential areas, the commercial land uses within Northstar Village, trails, forest vegetation, and limited areas of maintained landscaping around developed land uses. Representative photographs of the existing setting are provided in Figures 11A, 11B, and 11C.

As shown in Figure 2 and Figure 9, NCSD Wood Energy System Components, the proposed project would construct the proposed Wood Energy Utility Facility at 908 Northstar Drive, in the approximate location of a previously existing building. The project would also install a thermal energy distribution pipeline below-grade along Northstar Drive and install heat exchangers inside the existing buildings that would be served by the new energy system (at 900 Northstar Drive and in the Village at Northstar). As shown in Figure 13, Grading Plan, the project would require removal of four trees at the 908 Northstar Drive site.

The new building housing the Wood Energy Utility Facility would have a similar size, scale, and massing as the previously existing building at this location, with a total footprint of 6,000 square feet and building heights (measured from the natural grade) of 16 feet at the western façade and 12 feet at the eastern façade of the control room. The maximum building height measured from the average point of the natural grade would be 40.40 feet, as shown in Figure 12 and in the detailed building and site improvement plans provided in Appendix A. Figure 14, Building Renderings, shows that the building would be lower in height than surrounding trees and the building design would be compatible with the existing buildings at 900 and 910 Northstar Drive as well as the overall visual character of the Northstar California community. As discussed further below, the visual elements that the project would introduce are generally consistent with the existing types of development within the community and would not degrade the existing visual character and quality of the area. In addition, there is limited visibility from surrounding residences to the proposed Wood Energy Utility Facility site, as shown in Figures 11A, 11B, and 11C. Views of the site from the northernmost dwelling units in the Aspen Grove Condominiums (located south of

Northstar Drive and the Northstar Fire Station) and from the southernmost dwelling units in the Gold Bend Condominiums (located northwest of the Wood Energy Utility Facility site) are filtered by existing trees.

The proposed Wood Energy Utility Facility would be constructed in the location of a previously existing building surrounded by other developed land, specifically the Northstar Fire Station and the NCSD administrative offices. These facilities are located within the Northstar California community, which is approximately 57 percent built-out (NCSD 2020). Construction of the Wood Energy Utility Facility adjacent to the Northstar Fire Station and the NCSD administrative offices would not affect any ongoing or future buildout throughout the community. The proposed Wood Energy Utility Facility building design is compatible with the existing adjacent buildings. The proposed project would be consistent with the character of the immediate neighborhood. The proposed Wood Energy Utility Facility would not be contrary to orderly development within the Northstar California community.

Zoning Consistency

The proposed building would comply with the Placer County development standards for the FOR zone, as defined in Section 17.12.010(D) of the Placer County Code. These requirements include having a minimum 50-foot setback from the front property line and minimum 30-foot setbacks on all other sides. This section also establishes the maximum building height as 36 feet from the average natural grade. However, Section 17.54.020(D)(1) allows that public and quasi-public buildings may exceed that limit as long as the building setbacks are increased by one foot for each one foot of additional height. As a facility owned and operated by NCSD to provide critical infrastructure to the Northstar California community, the proposed Wood Energy Utility Facility would be a quasi-public building. The proposed maximum height of 40.40 feet would require that setbacks exceed the minimum amount by 4.4 feet. The front property line is along Northstar Drive. The proposed Wood Energy Utility Facility would be located to the rear of the Northstar Fire Department station. As shown in Sheet C3.0 of the proposed Improvement Plans and the height exhibit, both of which are provided in Appendix A, the portion of the Wood Energy Utility Facility nearest to Northstar Drive would have a setback from the road of approximately 96 feet. Further, the proposed building would be setback from the rear property line by approximately 110 feet, setback from the western side property line by approximately 50 feet, and setback from the eastern side property line by 36.14 feet. This eastern side setback is 2.14 feet more than the required distance under Section 17.54.020(D)(1); thus, the proposed Wood Energy Utility Facility building complies with the required setbacks for the FOR zone district.

Visual Character

As shown on Figure 11A, there are filtered views of the 908 Northstar Drive site from nearby segments of the Tomkins Memorial Trail. These views include the parking lot and upper portions of the fire station building as well as generally full views of the NCSD office building. The addition of the Wood Energy Utility Facility to these views would not alter the character of the immediate surroundings. Figure 11B shows that there is a substantial level of tree coverage between the 908 Northstar Drive site and the nearest residential condominiums such that the Wood Energy Utility Facility would not be visible from most residences and would not alter the visual character of the

community or be inconsistent with the character of the immediate neighborhood. As shown in the building renderings in Figure 14, the building would be lower in height than surrounding trees and the building design would be compatible with the existing buildings at 900 and 910 Northstar Drive as well as the overall visual character of the Northstar California community.

As shown in Figures 12 and 14 and the detailed building plans in Appendix A, the proposed Wood Energy Utility Facility would be constructed using a combination of metal siding and roofing in several shades of grey and brown, with some concrete and wooden detail elements around the ground floor, such as at building entrances. The building would include vents and windows on each elevation, as well as rooftop photovoltaic panels on the east elevation. The architectural style and building materials are compatible with the existing NCSD offices at 900 Northstar Drive, the Northstar Fire Department building at 910 Northstar Drive, and existing residential and commercial structures throughout the Northstar California community.

As shown on Figure 13, Grading Plan, construction of the Wood Energy Utility Facility would require removal of four trees – three from the east side of the building and one from the west side. The trees proposed to be removed are pine trees with trunks measuring from approximately 22 inches to 40 inches in diameter. The loss of these trees from the project site would not substantially change any public views of the site because the topography and vegetation between the project site and the surrounding residences and public roads provide significant screening of views of the site, as shown in Figure 11A, 11B, and Figure 14. No mitigation measures are required.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Impact. Exterior lighting would be installed around the perimeter of the proposed Wood Energy Utility Facility, particularly at building entrances, for security and safety. All lighting would be directed downward to illuminate walkways and doors. No other new lighting would be installed. As shown in Figures 12 and 14, there would be small windows on each side of the proposed Wood Energy Utility Facility and the majority of the building would have metal siding painted various shades of gray. The thermal heat distribution pipeline would be placed below grade and therefore would not have any potential to cause glare. Thus, the project would not create any new sources of substantial light or glare and would have no adverse effect on day or nighttime views in the area. No mitigation measures are required.

Mitigation Measures

No mitigation measures are required.

Detention Basin

Trail 1

Trail 2

Mid-range Trail View

Trail View, 908 Northstar Drive - North Elevation

Trail View, 908 Northstar Drive - West Elevation

Path: Z:\Projects\91392401\MAPDOC\DOCUMENTS\PD

Source: PR Design & Engineering Inc.

FIGURE 11A

Representative Site Photographs

Northstar Community Services District Wood Energy System Initial Study

DUDEK

900 Northstar Drive - Southwest Elevation

900 Northstar Drive - Southeast Elevation

908 Northstar Drive - North Elevation

908 Northstar Drive - South Elevation

910 Northstar Drive

Bridge to NPOA Recreation Center

Path: Z:\Projects\91392401\MAPDOC\DOCUMENTS\PD

Source: PR Design & Engineering Inc.

FIGURE 11B

Representative Site Photographs

Northstar Community Services District Wood Energy System Initial Study

DUDEK

View from Northstar Drive to 908 Northstar Drive

Aspen Grove Condos from Northstar Drive

Aspen Grove Condos from 908 Northstar Drive Driveway

Typical Forest Vegetation

Northstar Village 1

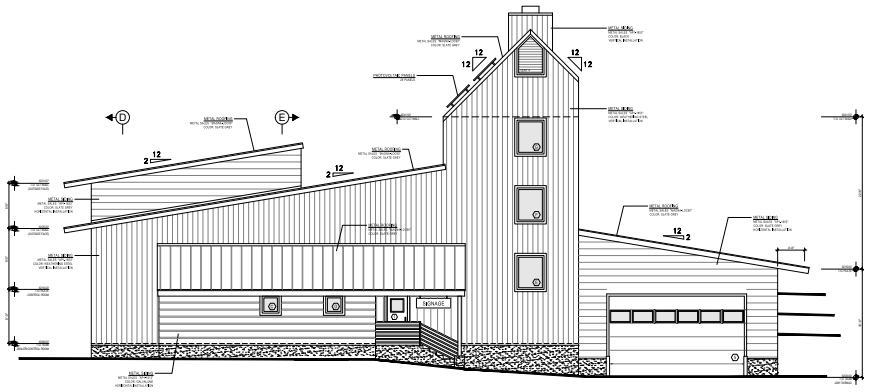
Northstar Village 2

Source: PR Design & Engineering Inc.

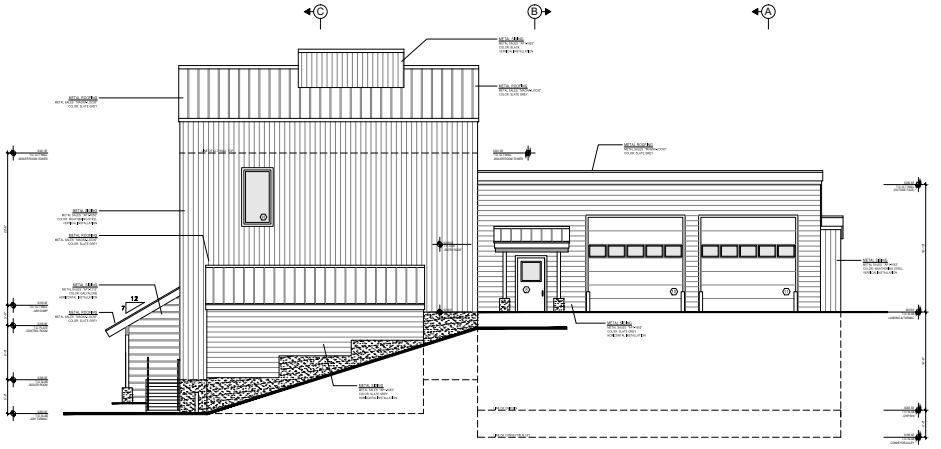
FIGURE 11C

Representative Site Photographs

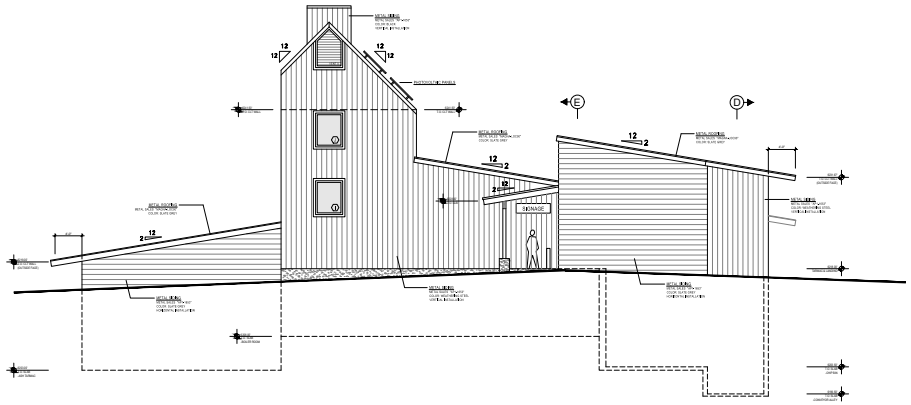
Northstar Community Services District Wood Energy System Initial Study



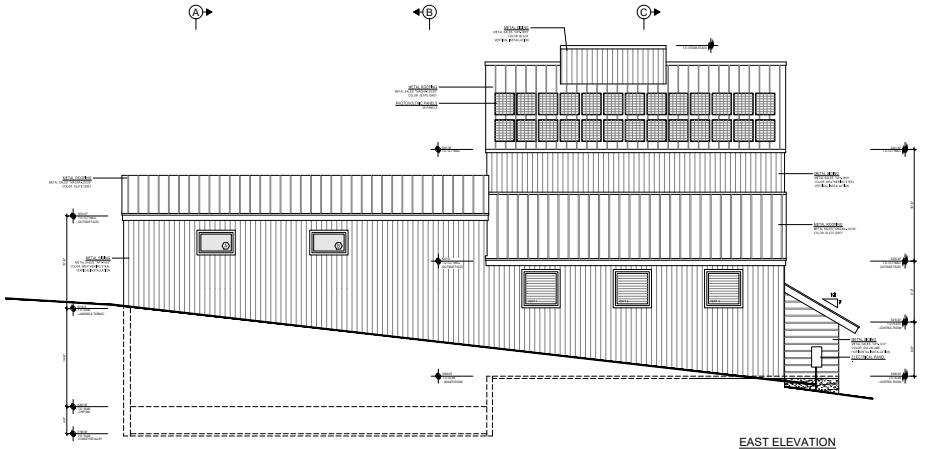
NORTH ELEVATION
SCALE: 1/4" = 1'-0"



WEST ELEVATION
SCALE: 1/4" = 1'-0"



SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



EAST ELEVATION
SCALE: 1/4" = 1'-0"

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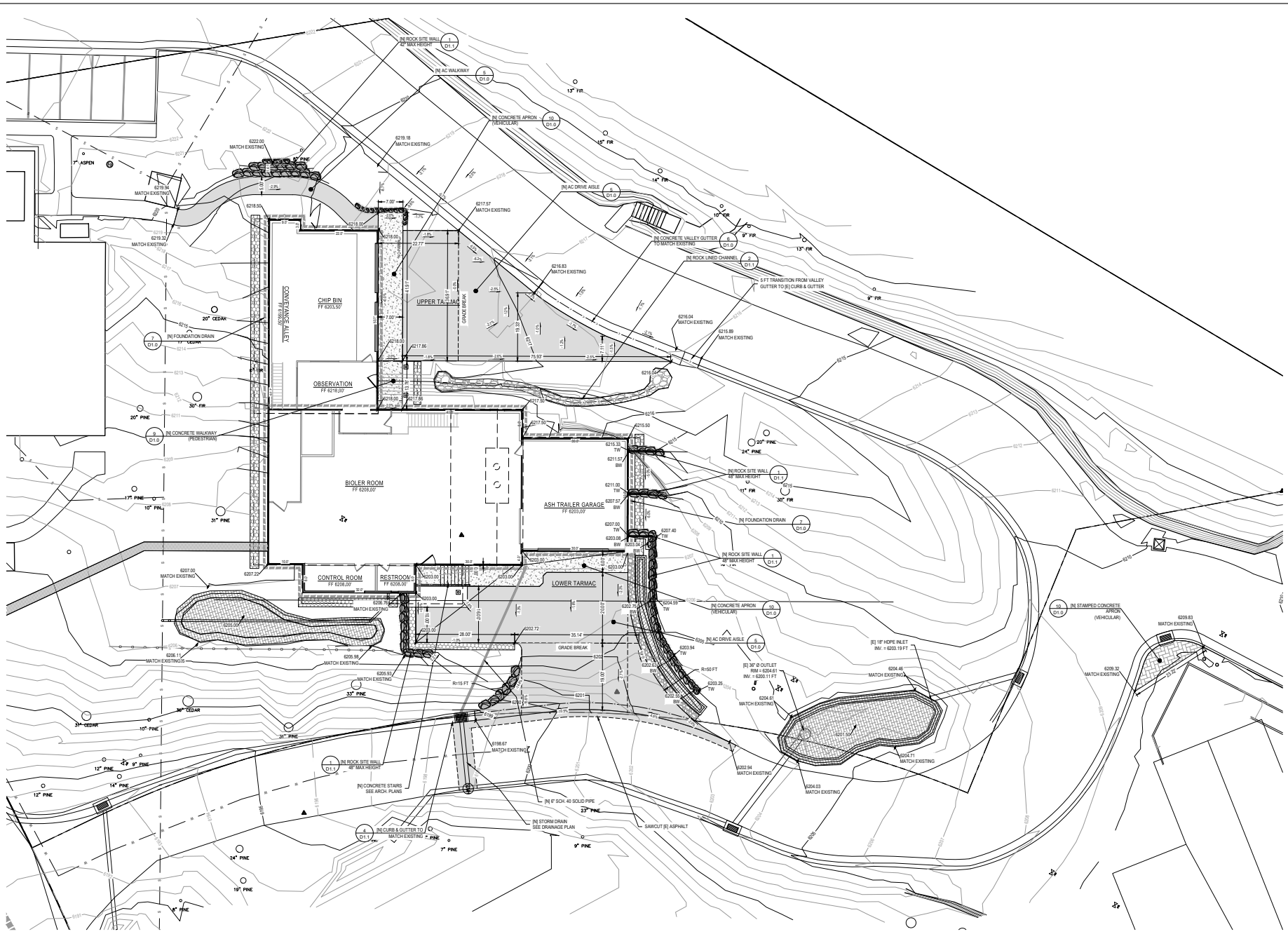
Source: PR Design & Engineering Inc.

DUDEK

FIGURE 12

Building Elevations

Northstar Community Services District Wood Energy System Initial Study



Source: PR Design & Engineering Inc.

FIGURE 13

Grading Plan

Northstar Community Services District Wood Energy System Initial Study

DUDEK

Wood Energy Utility Facility East Elevation

Wood Energy Utility Facility West Elevation

View from Fire Station

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Source: PR Design & Engineering Inc.

FIGURE 14

Building Renderings

3.2 Agriculture and Forestry Resources

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
II.	**AGRICULTURE AND FORESTRY RESOURCES** – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Setting

There are no existing agricultural or forestry uses within the project site. NCSD has implemented a forest fuel management and defensible space program throughout the Northstar California community since 2008.

The project site is located within Placer County and within the Martis Valley Community Plan area. As shown in Figure 5A, General Plan Designations, the project site carries the following land use designations under the Martis Valley Community Plan (Placer County 2003):

- 908 Northstar Drive - Forest 40-640 acre minimum
- 950 – 962 Northstar Drive and 4001 – 8001 Northstar Drive - Tourist/Resort Commercial
- NPOA Recreation Center - Forest 40-640 acre minimum

As shown on Figure 5B, Zoning Designations, the project site carries the following zoning designations under the Placer County Zoning Ordinance (Placer County 2023):

- 908 Northstar Drive- FOR-B-X-AO 160 AC. MIN
- 950 – 962 Northstar Drive - RM-Ds-PD=15
- 4001 – 8001 Northstar Drive - RES-Ds-PD=15
- NPOA Recreation Center - FOR-B-X-AO 160 AC. MIN

Although the NPOA Recreation Center and the property at 908 Northstar Drive are designated and zoned for forestry uses, these properties are developed with structures, impervious surfaces, and swimming pools and spas and do not support any forestry uses or activities.

Impact Discussion

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. No portion of the Northstar California community has been mapped under the California Resources Agency Farmland Mapping and Monitoring Program (California Department of Conservation 2022a). Thus, there is no Prime Farmland, Unique farmland, or Farmland of Statewide Importance within or proximate to the project site and the project would have no impact to such agricultural resources. No mitigation measures are required.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. No portion of the project site is zoned for agricultural uses and there are no Williamson Act contracts for land within or adjacent to the project site (California Department of Conservation 2023). Thus, the project would not result in any conflicts with agricultural zoning or Williamson Act contracts. No mitigation measures are required.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. Although the area that now comprises the Northstar California community and thousands of surrounding acres were originally acquired by the Fibreboard Corporation for a tree

farm, Fibreboard developed the Northstar at Tahoe Ski Resort on a portion of that land beginning in 1971. Currently, the Northstar California community supports residential, commercial, and recreational land uses. No forestry or timberland production activities have occurred in the community since it was developed in the 1970s other than the defensible space and forest fuels management programs that NCSD has implemented since 2008.

As noted above, the NPOA Recreation Center and the property at 908 Northstar Drive are designated and zoned for forestry uses. These properties are developed with structures, impervious surfaces, and swimming pools and spas and do not support any forestry uses or activities. There are forested areas adjacent to the NPOA Recreation Center facilities and around the perimeter of the parking lot adjacent to the Northstar Fire Department station. There are also several trees adjacent to the existing building at 908 Northstar Drive, however these trees are separated from nearby forest vegetation by Northstar Drive, the driveway that provides access to the NCSD offices, and the detention basin located east of 908 Northstar Drive. The proposed project does not include rezoning any property and would not introduce any new land uses to the project area that could conflict with the ability for forestry or timberland production activities to occur within lands zoned for forestry uses. No mitigation measures are required.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. While there are large areas of forest land throughout and surrounding the Northstar California community, the proposed project would not affect any forest land because all of the project components would be located within land that is currently developed with public/institutional, residential, commercial, and recreational uses. The project would construct a Wood Energy Utility Facility at 908 Northstar Drive. This property was originally developed in 1971. The building previously located at this property was demolished in late 2022. As discussed in response 3.2(c) above, there are trees within and adjacent to the site; however, they are isolated from nearby forested areas. The project would also install an underground thermal energy distribution pipeline along Northstar Drive that would connect to existing buildings within the Village at Northstar. The pipeline would generally be located below the existing pavement, and in some cases below-grade adjacent to the existing pavement. There is no forest land within the pipeline alignment. The project would not result in the loss of forest land or conversion of forest land to non-forest use and would have no impact to forest land. No mitigation measures are required.

e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No Impact. As noted in response 3.2(a), there are no agricultural activities or farmland within or adjacent to the project site. As discussed in response 3.2(d), the proposed project would not affect any forest land because all of the project components would be located within land that is currently developed with public/institutional, residential, commercial, and recreational uses. Further, the project would not introduce any new land uses or other environmental changes to the project area that could lead to conversion of any of the forest land surrounding the project site. Thus, the project would have no impact. No mitigation measures are required.

Mitigation Measures

No mitigation measures are required.

3.3 Air Quality

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Setting

The project site is in the Mountain Counties Air Basin (MCAB) under the jurisdiction of the PCAPCD. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. Facilities and structures where these air pollution-sensitive people live or spend considerable amounts of time are known as sensitive receptors. The California Air Resources Board (CARB) Air Quality and Land Use Handbook establishes that land uses where air pollution-sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (sensitive sites or sensitive land uses) (CARB 2005). As depicted in Figure 4, Surrounding Land Uses, sensitive receptors proximate to the Wood Energy Utility Facility include low-density and medium-density residences surrounding the 908 Northstar Drive property, with the nearest receptor located approximately 145 feet to the southeast. In addition, there are existing residences along the thermal distribution pipeline alignment; people within these residences could be exposed to air pollutants during project construction.

Criteria Air Pollutants

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. Criteria air pollutants that are evaluated in this analysis include reactive organic gases (ROG; also referred to as volatile organic compounds [VOCs]), oxides of nitrogen (NO_x), carbon monoxide (CO), sulfur oxides (SO_x), particulate matter with an aerodynamic diameter less than or equal to 10 microns in size (coarse particulate matter, or PM_{10}), and particulate matter with an aerodynamic diameter less than or equal to 2.5 microns in size (fine particulate matter, or $PM_{2.5}$). ROG and NO_x are important because they are precursors to ozone (O_3).

The U.S. Environmental Protection Agency (EPA) establishes National Ambient Air Quality Standards (NAAQS) and CARB establishes California Ambient Air Quality Standards (CAAQS). The MCAB is designated as a nonattainment area for the state PM_{10} and O_3 standards and a nonattainment area for the federal O_3 standards but is in attainment for all other NAAQS and CAAQS[1] (CARB 2020; EPA 2022).

Appendix G of the CEQA Guidelines indicates that, where available, the significance criteria established by the applicable air quality management district or pollution control district may be relied upon to determine whether the project would have a significant impact on air quality. The PCAPCD regulates many sources of air pollutants and is responsible for implementing certain programs and regulations for controlling air pollutant emissions to improve air quality and attain compliance with the NAAQS and CAAQS.

Various development projects have the potential to generate air pollutants that would result in adverse environmental impacts. To evaluate air pollutant emissions from development projects, the PCAPCD established significance thresholds for emissions of ROG, NO_x, and PM_{10}, which are listed in Table 3.3-1. PCAPCD guidelines provide that if the project's emissions of ROG, NO_x, and $PM_{10,}$ which are the pollutants for which the region is designated non-attainment, are equal to or less than the construction and operational significance thresholds, then the project-level emissions would represent a less-than-significant impact. In addition, if the project emissions do not exceed the PCAPCD cumulative-level significance thresholds, then the project would result in a less-than-significant cumulative impact. The emission-based thresholds for O_3 precursors (ROG or NO_x) are intended to serve as a surrogate for an "ozone significance threshold" (i.e., the potential for adverse O_3 impacts to occur) because O_3 itself is not emitted directly, and the effects of an individual project's emissions of O_3 precursors (ROG and NO_x) on O_3 levels in ambient air cannot be determined reliably or meaningfully through air quality models or other quantitative methods.

Regarding localized CO concentrations, according to PCAPCD guidance (PCACPD 2017), a project should conduct a site-specific CO dispersion modeling analysis to evaluate whether a potential CO hot spot would be created if the potential concentrations of CO emissions from vehicle operation are more than 550 pounds per day and if either of the following scenarios are true for any intersection affected by project traffic:

1. A traffic study for the project indicates that the peak-hour Level of Service (LOS) on one or more streets or at one or more intersections (both signalized and non-signalized) in the project vicinity

[1] An area is designated as in attainment when it is in compliance with the NAAQS and/or the CAAQS. These standards are set by the EPA and CARB, respectively, for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or the public welfare. Attainment = meets the standards; attainment/maintenance = achieve the standards after a nonattainment designation; nonattainment = does not meet the standards; unclassified = expected to be meet the standard despite a lack of monitoring data.

would be degraded from an acceptable LOS (e.g., A, B, C, or D) to an unacceptable LOS (e.g., E or F); or

2. A traffic study indicates that the project would substantially worsen an already existing unacceptable peak-hour LOS on one or more streets or at one or more intersections in the project vicinity. "Substantially worsen" includes situations where a delay would increase by 10 seconds or more when project-generated traffic is included.

Table 3.3-1. PCAPCD Significance Thresholds for Criteria Pollutants

Pollutant	Construction Threshold	Operational Project-Level Threshold	Operational Cumulative-Level Threshold
	Pounds per Day		
ROG	82	55	55
NO_X	82	55	55
PM_{10}	82	82	82

Source: PCAPCD 2017
Notes: PCAPCD = Placer County Air Pollution Control District; ROG = reactive organic gases; NO_x = oxides of nitrogen; PM_{10} = coarse particulate matter.

Toxic Air Contaminants

A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure or causing acute and/or chronic noncancer health effects. A toxic substance released into the air is considered a toxic air contaminant (TAC). TACs are identified by federal and state agencies based on a review of available scientific evidence. In the state of California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics "Hot Spots" Information and Assessment Act, Assembly Bill (AB) 2588, was enacted by the legislature in 1987 to address public concern over the release of TACs into the atmosphere. The law requires facilities that emit toxic substances to provide the local air pollution control district with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public that has been or could be exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years.

Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources, such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources, such as automobiles; and area sources, such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

The PCAPCD has established thresholds of significance for TAC emissions (PCAPCD 2017). Projects that have the potential to expose the public to TACs in excess of the following thresholds would be considered to have a significant air quality impact:

1. Probability of contracting cancer for the maximally exposed individual equals or exceeds 10 in 1 million people; or
2. Hazard Index[2] for acute and chronic non-carcinogenic TACs equals or exceeds 1.0 for the maximally exposed individual.

Impact Discussion

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant Impact. The purpose of a consistency finding is to determine if a project is inconsistent with the assumptions and objectives of the regional air quality plans, and if so, whether it would interfere with the region's ability to comply with federal and state air quality standards. In general, projects are considered consistent with the air quality plan, and would not conflict with or obstruct implementation of the air quality plan, if the growth in socioeconomic factors is consistent with the underlying regional plans used to develop the air quality management plan.

The PCAPCD's 2021 Triennial Progress Report (PCAPCD 2022) is the applicable air quality management plan. This report relies on demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment) that were developed by the Placer County Transportation Planning Agency (PCTPA) for its Regional Transportation Plan 2040 (Placer County RTP) (PCTPA 2019). Notably, the Placer County RTP is incorporated into the Sacramento Area Council of Government's (SACOG's) Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS), which plans for transportation projects across the six-county Sacramento Region (including Placer County), establishes estimates of future land use development and housing types, addresses environmental sustainability, and considers equity in transportation planning. PCTPA and SACOG work closely together to ensure alignment between the RTP and the MTP/SCS.

The project would construct a Wood Energy Utility Facility and install a thermal energy distribution pipeline to serve existing residential, commercial, and recreational facilities within the Village at Northstar. The project would not introduce any new residential, commercial, or industrial land uses that could generate population growth or associated increases in traffic, energy demand, water consumption, wastewater generation, or use of consumer products. The project would extend new infrastructure through the existing Northstar California community to replace existing natural gas use with wood energy-generated thermal energy. This would not increase the occupancy capacity of the existing residences that would be served by the proposed wood energy system. In addition,

[2] Non-cancer adverse health impact, both for acute (short-term) and chronic (long-term) health effects, is measured against a hazard index, which is defined as the ratio of the predicted incremental exposure concentration from the project to a published reference exposure level that could cause adverse health effects as established by the Office of Environmental Health Hazard Assessment (OEHHA). The ratio (referred to as the hazard quotient) of each noncarcinogenic substance that affects a certain organ system is added together to produce an overall hazard index for that organ system.

the project would reduce VMT as compared to the existing baseline conditions by hauling the woody biomass obtained from TTSD to the proposed Wood Energy Utility Facility (approximately 25 miles roundtrip) rather than having this material transported to Rio Bravo-Rocklin (approximately 183 miles roundtrip), Honey Lake Power (approximately 196 miles roundtrip), disposed of at Full Circle Compost in Nevada (approximately 153 miles roundtrip) or transported to the Lockwood Landfill (approximately 107 miles roundtrip). Finally, the NCSD Wood Energy System would be maintained by existing NCSD employees and would not require additional trips, as NCSD operations employees are based at the NCSD administrative offices adjacent to the Wood Energy Utility Facility site and already visit a water pump station adjacent to the site.

Based on the preceding considerations, implementation of the project would not result in population or employment growth and would result in a reduction in VMT as compared to existing conditions, which would also minimize the associated on-road criteria air pollutant and GHG emissions from the project. As such, impacts relating to the project's potential to conflict with or obstruct implementation of the applicable air quality management plan would be less than significant.

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less than Significant Impact. Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the PCAPCD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are relevant in the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality.

Construction

Proposed construction activities would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment and soil disturbance) and off-site sources (i.e., on-road vendor trucks, haul trucks, and worker vehicle trips) for the project building and the distribution pipeline. Construction emissions can vary substantially from day to day, depending on the level of activity; the specific type of operation; and, for particulate matter, the prevailing weather conditions. Therefore, such emission levels can only be approximately estimated.

The California Emissions Estimator Model (CalEEMod) Version 2020.4.0 was used to estimate emissions from construction of the project. CalEEMod input parameters, including the land use type used to represent the project and its size, construction schedule, and anticipated use of construction equipment, were based on information provided by the applicant or default model assumptions if project specifics were unavailable. Construction was assumed to commence in July 2023 and last approximately 6 months. The construction schedule used for the CalEEMod modeling is detailed below. Construction is expected to occur later than was modeled, but the schedule is anticipated to be similar to the modeled schedule, particularly with respect to the

number of days required to complete each construction phase. Thus the changes in the construction schedule are not expected to result in a change in the anticipated air pollutant emissions that would be generated during construction.

- Site preparation (July 2023)
- Grading/ Trenching (July 2023 – August 2023)
- Off-site distribution pipeline construction (July 2023 – November 2023)
- Building construction and equipment installation (August 2023 – December 2023)
- Paving (December 2023)

In addition to construction equipment operation, emissions from haul trucks, vendor trucks (i.e., delivery and water trucks), and worker vehicles were estimated. The mix of construction equipment and on-road vehicles used for estimating the construction emissions of the project is based on data shown in Table 3.3-2.

Table 3.3-2. Construction Scenario Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Daily Usage Hours
Site Preparation	10	2	0	Excavators	1	8
				Tractors/Loaders/Backhoes	2	8
Grading/ Trenching	12	2	125	Excavators	2	8
				Tractors/Loaders/Backhoes	2	8
Off-site Distribution Pipeline Construction	6	2	227	Tractors/Loaders/Backhoes	2	8
Building Construction	12	3	0	Excavators	1	8
				Forklifts	1	8
				Tractors/Loaders/Backhoes	2	8
Paving	12	2	0	Pavers	1	8
				Paving Equipment	1	8
				Tractors/Loaders/Backhoes	1	8

Source: Appendix B

Internal combustion engines used by construction equipment, trucks, and worker vehicles would result in emissions of ROG, NOx, CO, SO_x, PM_{10}, and $PM_{2.5}$. PM_{10} and $PM_{2.5}$ emissions would also be generated by entrained dust, which results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil. To account for compliance with PCAPCD Rule 228 (fugitive dust), it was assumed that the active construction sites would be watered at least twice daily, or as necessary depending on weather conditions, and that vehicle speeds on unpaved areas would be limited to no more than 15 miles per hour. Table 3.3-3 presents the estimated maximum

daily construction emissions generated during construction of the project. Details of the emission calculations are provided in Appendix B.

Table 3.3-3. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions

Year	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
	pounds per day					
2023	1.08	10.97	16.49	0.03	1.10	0.57
Maximum Daily Emissions	**1.08**	**10.97**	**16.49**	**0.03**	**1.10**	**0.57**
PCAPCD Threshold	*82*	*82*	*N/A*	*N/A*	*82*	*N/A*
Threshold Exceeded?	**No**	**No**	**N/A**	**N/A**	**No**	**N/A**

Notes: ROG = reactive organic gas; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; PCAPCD = Placer County Air Pollution Control District; N/A = not applicable.
The values shown are the maximum summer or winter daily emissions results from CalEEMod. These estimates include fugitive dust controls pursuant to PCAPCD Rule 228.
Source: Appendix B

As shown in Table 3.3-3, project construction would not exceed the PCAPCD's daily thresholds. In addition, as previously discussed, the project would comply with Rule 228 in order to reduce fugitive dust impacts. For areas to be disturbed of any size, Rule 228, Section 400 establishes standards to be met by activities generating fugitive dust. Minimum dust control requirements, summarized below, are to be initiated at the start and maintained throughout the duration of construction:

1. Unpaved areas subject to vehicle traffic must be stabilized by being kept wet, treated with a chemical dust suppressant, or covered. In geographic ultramafic rock units, or when naturally occurring asbestos, ultramafic rock, or serpentine is to be disturbed, the cover material shall contain less than 0.25 percent asbestos as determined using the bulk sampling method for asbestos in Section 502.
2. The speed of any vehicles and equipment traveling across unpaved areas must be no more than 15 miles per hour unless the road surface and surrounding area is sufficiently stabilized to prevent vehicles and equipment traveling more than 15 miles per hour from emitting dust exceeding Ringelmann 2 or visible emissions from crossing the project boundary line.
3. Storage piles and disturbed areas not subject to vehicular traffic must be stabilized by being kept wet, treated with a chemical dust suppressant, or covered when material is not being added to or removed from the pile.
4. Prior to any ground disturbance, including grading, excavating, and land clearing, sufficient water must be applied to the area to be disturbed to prevent emitting dust exceeding Ringelmann 2 and to minimize visible emissions from crossing the boundary line.

5. Construction vehicles leaving the site must be cleaned to prevent dust, silt, mud, and dirt from being released or tracked off site.
6. When wind speeds are high enough to result in dust emissions crossing the boundary line, despite the application of dust mitigation measures, grading and earthmoving operations shall be suspended.
7. No trucks are allowed to transport excavated material off-site unless the trucks are maintained such that no spillage can occur from holes or other openings in cargo compartments, and loads are either;
    i. Covered with tarps; or
    ii. Wetted and loaded such that the material does not touch the front, back, or sides of the cargo compartment at any point less than six inches from the top and that no point of the load extends above the top of the cargo compartment.
8. A person shall take actions such as surface stabilization, establishment of a vegetative cover, or paving, to minimize wind-driven dust from inactive disturbed surface areas.

Implementation of the required fugitive dust control measures would ensure air quality and fugitive dust-related impacts associated with construction would remain less than significant.

Operations

Operation of the project would generate criteria pollutant emissions primarily from the combustion of woody biomass in the boilers, as well as minimal emissions associated with mobile sources (truck traffic for wood chip delivery and ash export), and area sources (landscaping equipment). However, the woody biomass materials that NCSD would receive are already being transported to other end-users, including other energy generation facilities where the materials are combusted. Thus, emissions were also estimated for the existing baseline conditions, including truck traffic transporting woody biomass to existing end-users, stationary sources from combustion at the Rio Bravo-Rocklin electrical generation facility, and current use of natural gas that would be replaced by the heat generated from the proposed wood energy system. The CalEEMod model was used to estimate emissions from all sources for the existing and proposed project scenarios, except for the proposed boilers, which were quantified using emission factors from the manufacturer and/or from the EPA AP-42: Compilation of Air Emission Factors, Chapter 1.6 (Wood Residue Combustion in Boilers) (EPA 2003). As shown in Figure 8, the Wood Energy Utility Facility would include equipment and processes to minimize air pollutant emissions, including advanced treatment, an electrostatic precipitator, and flue gas recirculation. Table 3.3-4 summarizes the net increase in daily emissions of criteria pollutants that would be generated by the project.

Table 3.3-4. Estimated Maximum Daily Operational Criteria Air Pollutant Emissions

Source	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
	pounds per day					
Project						
Area	0.02	0.00	<0.01	0.00	0.00	0.00
Mobile (Within PCAPCD Jurisdiction)	<0.01	0.09	0.02	<0.01	0.01	<0.01
Stationary (NCSD Wood Energy System boilers)	2.77	19.91	40.80	4.08	6.53	5.71
Total	**2.79**	**20.00**	**40.82**	**4.08**	**6.54**	**5.71**
Existing						
Energy (Natural Gas)	1.48	13.49	11.33	0.08	1.03	1.03
Mobile (Within PCAPCD Jurisdiction, assuming existing trips are to Full Circle)	<0.01	0.03	<0.01	<0.01	0.06	0.06
Stationary (Rio Bravo biomass boilers)	2.77	19.91	40.80	4.08	6.53	5.71
Total	**4.25**	**33.43**	**52.13**	**4.16**	**7.61**	**7.79**
Net Change						
Net Change (Project – Existing)	**(1.46)**	**(13.43)**	**(11.31)**	**(0.08)**	**(1.07)**	**(2.08)**
PCAPCD Threshold	*55*	*55*	*N/A*	*N/A*	*82*	*N/A*
Threshold Exceeded?	**No**	**No**	**N/A**	**N/A**	**No**	**N/A**

Notes: ROG = reactive organic gas; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; PCAPCD = Placer County Air Pollution Control District; N/A = not applicable.
Values of "<0.01" indicate that the estimated emissions are less than two decimals. Results shown are the maximum summer or winter daily emissions from CalEEMod. Totals may not sum due to rounding.
Numbers in parentheses represent a negative number.
Source: Appendix B

As shown in Table 3.3-4, the maximum daily emissions generated by the NCSD Wood Energy System would remain well-below the PCAPCD Operational Phase Project-Level thresholds for criteria air pollutants and when considering the reduction in other air pollution generating activities (natural gas consumption, length of vehicle trips, and boiler usage at existing energy generation facilities), the net maximum daily emissions would decrease relative to existing conditions. As these thresholds are the same as for the Cumulative Level analysis adopted by PCAPCD (identified in Table 3.3-1 above), the project would result in a less than significant impact on a project- and cumulative-basis. In the cumulative condition, as forest fuel management and defensible space activities in the region increase, it is possible that the total volume of woody biomass combustion at the existing Rio Bravo facility would increase and the degree to which the air pollutant emission reduction shown in Table 3.3-4 would lessen. However, the Rio Bravo facility would continue to operate within the maximum limits established by PCAPCD permits, and the NCSD Wood Energy System would not be permitted to burn more than 3,800 BDT of wood annually (consistent with

the CalEEMod modeling assumptions), thus it would not generate emissions that exceed the Cumulative Level thresholds and the project would not create a significant project-specific or cumulative impact.

Notably, the existing mobile source emissions shown in Table 3.3-4 are based on the assumption that all of the woody biomass that NCSD would receive is currently being transported to Full Circle Compost in Nevada and reflects only the mobile source emissions that would occur within the PCAPCD jurisdiction, in order to compare to the PCAPCD thresholds of significance. However, the project would result in substantially reduced trip distances for the woody biomass haul trucks since some of the material processed at the proposed Wood Energy Utility Facility would be diverted from the woody biomass stream currently being transported to Rio Bravo-Rocklin, Honey Lake Power in Lassen County, Full Circle Compost in Nevada, and Lockwood Landfill in Nevada. For the purposes of this analysis, this shorter travel distance was assumed to ensure a conservative analysis. However, based on information provided by TTSD, given current market conditions it is reasonable to expect that the wood chips that NCSD would receive would otherwise have been transported to Rio Bravo for use in that existing biomass plant. Thus, the existing stationary source emissions shown in Table 3.3-4 reflects the amount of emissions generated at Rio Bravo to combust the volume of wood chips that the proposed project would process. For disclosure and to present the overall change in potential mobile emissions, Table 3.3-5 presents the total maximum daily mobile source emissions for informational purposes only.

Table 3.3-5. Total Daily Operational Criteria Air Pollutant Emissions

Source	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
	pounds per day					
Project						
Mobile (Total)	<0.01	0.11	0.03	<0.01	0.01	<0.01
Total	**<0.01**	**0.11**	**0.03**	**<0.01**	**0.01**	**<0.01**
Existing						
Mobile (Total)	0.01	0.48	0.06	<0.01	0.06	0.02
Total	**0.01**	**0.48**	**0.06**	**<0.01**	**0.06**	**0.02**
Net Change						
Net Change (Project – Existing)	**(0.01)**	**(0.37)**	**(0.03)**	**0.00**	**(0.05)**	**(0.02)**

Notes: ROG = reactive organic gas; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; PCAPCD = Placer County Air Pollution Control District.
Values of "<0.01" indicate that the estimated emissions are less than two decimals. Results shown are the maximum summer or winter daily emissions from CalEEMod. Totals may not sum due to rounding.
Numbers in parentheses represent a negative number.
Source: Appendix B

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact. As described in the following discussion, two Health Risk Assessments (HRAs) were prepared to identify the potential health impacts associated with exposure to TACs and criteria air pollutants from project construction and operations. Each HRA concluded that the estimated risk levels for individuals within the project vicinity would not exceed

the respective PCAPCD risk thresholds, and therefore, project construction and project operations would result less-than-significant health risk impacts and mitigation would not be required. The dispersion modeling, HRA methodology, and conclusions are summarized below. Supporting HRA documentation, including detailed assumptions and model outputs, is presented in Appendix B.

Health Impacts of Toxic Air Contaminants

Construction Health Risk Assessment. For risk assessment purposes, PM_{10} in diesel exhaust is considered diesel particulate matter (DPM), originating mainly from off-road equipment operating at a defined location for a given length of time at a given distance from sensitive receptors. Less-intensive, more-dispersed emissions result from on road vehicle exhaust (e.g., heavy-duty diesel trucks).

Air dispersion modeling was performed using the EPA's American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) Version 22112 modeling system (computer software) with the Lakes Environmental Software implementation/user interface, AERMOD View Version 11.2.0. The HRA followed the Office of Environmental Health Hazard Assessment (OEHHA) 2015 guidelines (OEHHA 2015) and PCAPCD guidance to calculate the health risk impacts at all proximate receptors as further discussed below. The dispersion modeling included the use of standard regulatory default options. Principal parameters of this modeling are presented in Table 3.3-6.

Table 3.3-6. American Meteorological Society/Environmental Protection Agency Regulatory Model Principal Parameters

Parameter	Details
Meteorological Data	AERMOD-specific meteorological data for the Lake Tahoe Airport air monitoring station (KTVL) was used for the dispersion modeling. A meteorological data set from 2017 through 2021 was obtained from the CARB in a preprocessed format suitable for use in AERMOD.
Urban versus Rural Option	The rural dispersion option was selected due to the undeveloped nature of the project area.
Terrain Characteristics	Digital elevation data were imported into AERMOD and elevations were assigned to receptors and emission sources, as necessary. Digital elevation data were obtained through the AERMOD View in the U.S. Geological Survey's National Elevation Dataset format with a resolution of 1 arc-second resolution.
Source Release Characterizations	Air dispersion modeling of DPM emissions was conducted assuming the off-road equipment and trucks would operate in accordance with the modeling scenario estimated in CalEEMod, based on the best information available at the time of analysis: • Off-road equipment and trucks were modeled as a line of adjacent volume sources across the project site and pipeline alignments with a release height of 5 meters, a plume height of 10 meters, and plume width of 10 meters.
Receptors	Discrete receptors were placed at the nearest receptor locations in all directions to the project site and along the pipeline alignment.

Notes: AERMOD = American Meteorological Society/Environmental Protection Agency Regulatory Model; CARB = California Air Resources Board; CalEEMod = California Emissions Estimator Model.
Source: Appendix B

The health risk calculations were performed using the Hotspots Analysis and Reporting Program Version 2 (HARP2) Air Dispersion and Risk Tool (Version 22118). AERMOD was run with all sources emitting unit emissions (1 gram per second) to obtain the necessary input values for HARP2. The line of volume sources was partitioned evenly based on the 1 gram per second emission rate. The ground-level concentration plot files were then used to estimate the long-term cancer health risk to an individual, and the non-cancer chronic health indices. There is no reference exposure level for acute health impacts from DPM, and, thus, acute risk was not evaluated. Notably, the following measures are required by state law to reduce DPM emissions:

- Fleet owners of mobile construction equipment are subject to the CARB Regulation for In-use Off-road Diesel Vehicles (Code of California Regulations, Title 13, Section 2449), the purpose of which is to reduce DPM and criteria pollutant emissions from in-use (existing) off-road diesel-fueled vehicles.
- All commercial diesel vehicles are subject to Title 13, Section 2485 of the California Code of Regulations, limiting engine idling time. Idling of heavy-duty diesel construction equipment and trucks during loading and unloading shall be limited to five minutes; electric auxiliary power units should be used whenever possible.

Although construction activities do not lend themselves to analysis of long-term health risks because of their temporary and variable nature, in the abundance of caution and to provide information disclosure, a construction HRA was performed for the project to evaluate the risk from diesel exhaust emissions on existing proximate receptors. The project's potential cancer and noncancer health impacts were estimated using exposure periods that represent construction emission increases (third trimester of pregnancy for 6-month duration for residents and 16 years old for 6-month duration for workers). Emissions dispersion of DPM was modeled using AERMOD, then cancer risk and noncancer health impacts subsequently using the CARB HARP2. Cancer and noncancer health risk results for the for the Maximum Exposed Individual Resident (MEIR) and maximally exposed individual worker (MEIW)[3] are presented in Table 3.3-7. Detailed model outputs are included in Appendix B.

Table 3.3-7. Construction Health Risk Assessment Results

Impact Parameter	Units	Project Impact	CEQA Threshold	Level of Significance
MEIR				
Cancer Risk	Per Million	4.7	10.0	Less than Significant
Chronic Hazard Index	Not Applicable	0.01	1.0	Less than Significant
MEIW				
Cancer Risk	Per Million	0.72	10.0	Less than Significant
Chronic Hazard Index	Not Applicable	0.11	1.0	Less than Significant

[3] Although not considered sensitive receptors under CEQA, worker health risk was included in the assessment in the abundance of caution.

Notes: CEQA = California Environmental Quality Act; MEIR = Maximum Exposed Individual Resident; MEIW = Maximum Exposed Individual Worker.
Source: Appendix B

As shown in Table 3.3-7, the results of the construction HRA for the project demonstrate that the construction emissions would result in an incremental increase in cancer risk of approximately 4.7 in a million and a Chronic Hazard Index of 0.01 at the MEIR. For the MEIW, the project would result in an incremental increase in cancer risk and Chronic Hazard Index of approximately 0.72 in a million and 0.11, respectively. The estimated risk levels at the MEIR and the MEIW would not exceed the respective PCAPCD risk thresholds, and therefore, project construction would result a less than significant health risk impact and mitigation would not be required.

Operational Health Risk Assessment. For the operational HRA, the operation year 2024 was assumed consistent with completion of project construction. Potential TAC emissions from the proposed boilers were modeled in the operational HRA.[4] The project's potential cancer and noncancer health impacts were estimated using exposure periods appropriate to evaluate long-term emission increases (third trimester of pregnancy to 30 years for residents and 16 years old for 25 years for workers). Emissions dispersion of all TACs was modeled using AERMOD, then cancer risk and noncancer health impacts subsequently using the CARB HARP2. The health risk results were then compared to PCAPCD thresholds to assess project significance. Principal parameters of this modeling are presented in Table 3.3-8.

Table 3.3-8. Operational Health Risk Assessment American Meteorological Society/U.S. Environmental Protection Agency Regulatory Model Operational Principal Parameters

Parameter	Details
Meteorological Data	AERMOD-specific meteorological data for the Lake Tahoe Airport air monitoring station (KTVL) was used for the dispersion modeling. A meteorological data set from 2017 through 2021 was obtained from the CARB in a preprocessed format suitable for use in AERMOD.
Urban versus Rural Option	The rural dispersion option was selected due to the undeveloped nature of the project area.
Terrain Characteristics	Digital elevation data were imported into AERMOD and elevations were assigned to receptors and emission sources, as necessary. Digital elevation data were obtained through the AERMOD View in the U.S. Geological Survey's National Elevation Dataset format with a resolution of 1 arc-second resolution.
Source Release Characterizations	The following operational source modeling parameters were based on the best information available at the time of analysis, as provided by the boiler manufacturer: • The stacks for the two 1-megawatt boilers were modeled as point sources and at the proposed building based on the site plan. Each vertical stack was assumed to have a release height of approximately 13 meters, inside stack diameter of 0.28 meters, gas exhaust temperature of 433 degrees Kelvin, and gas exhaust flow rate of 0.92 cubic meters per minute.
Receptors	Discrete receptors were placed at the nearest receptor locations in all directions to the project site.

Note: AERMOD = American Meteorological Society/Environmental Protection Agency Regulatory Model; CARB = California Air Resources Board.

[4] Truck traffic would be minimal for long-term operations and was therefore not included in the HRA.

Source: Appendix B

For the HRA, with input from the PCAPCD, TAC emissions for the project were estimated based on representative emission factors from the *Health Risk Assessment for Additional Fuel Project* (Sierra Pacific Industries 2008) for the Sierra Pacific Industries biomass boiler facility in Lincoln, California, or from the EPA AP-42: Compilation of Air Emission Factors, Chapter 1.6 (Wood Residue Combustion in Boilers) (EPA 2003), if TAC emission factors were not measured for the Sierra Pacific Industries boilers. TAC emissions were based on the anticipated total throughputs of 6.8 MMBtu/hour and 50,735 MMBtu/year. The TAC emissions inventory is provided in Appendix B.

OEHHA recommends that an exposure duration (residency time) of 30 years be used to estimate an individual residential cancer risk starting in the 3rd trimester to accommodate the increased susceptibility of exposures in early life (OEHHA 2015). The "Mandatory Minimum Pathways" option was also selected in HARP2, which includes exposure through inhalation, soil, dermis, and mother's milk, where applicable for each TAC. For the worker receptors, OEHHA recommends that individual cancer risk start at 16 years old and occur for 25 years. Cancer and noncancer health risk results for the for the MEIR and MEIW are presented in Table 3.3-9.

Table 3.3-9. Operational Health Risk Assessment Results

Impact Parameter	Units	Project Impact	CEQA Threshold	Level of Significance
MEIR				
Cancer Risk	Per Million	5.11	10.0	Less than Significant
Chronic Hazard Index	Not Applicable	0.05	1.0	Less than Significant
Acute Hazard Index	Not Applicable	0.05	1.0	Less than Significant
MEIW				
Cancer Risk	Per Million	2.63	10.0	Less than Significant
Chronic Hazard Index	Not Applicable	0.32	1.0	Less than Significant
Acute Hazard Index	Not Applicable	0.14	1.0	Less than Significant

Notes: CEQA = California Environmental Quality Act; MEIR = Maximum Exposed Individual Resident; MEIW = Maximum Exposed Individual Worker.
Source: Appendix B

As shown in Table 3.3-9, the results of the operational HRA for the project demonstrate that the long-term emissions from the facility would result in an incremental increase in cancer risk, Chronic Hazard Index, and Acute Hazard Index at the MEIR of approximately 5.11 in a million, 0.05, and 0.05, respectively. For the MEIW, the project would result in an incremental increase in cancer risk, Chronic Hazard Index, and Acute Hazard Index of approximately 2.63 in a million, 0.32, and 0.14, respectively. The estimated risk levels at the MEIR and the MEIW would not exceed the respective PCAPCD risk thresholds, and therefore, project operations would result a less than significant health risk impact and mitigation would not be required.

Health Impacts of Criteria Air Pollutants

Construction and operation of the project would not result in emissions that exceed the PCAPCD significance thresholds for any criteria air pollutants, including ROG, NO_x, or PM_{10}.

ROG emissions would be associated with motor vehicles, construction equipment, and architectural coatings; however, project-generated ROG emissions would not result in exceedances of the PCAPCD significance thresholds, as shown in Table 3.3-3 and Table 3.3-4.

Health effects associated with O_3 include respiratory symptoms, worsening of lung disease leading to premature death, and damage to lung tissue (CARB 2022a). ROG and NO_x are precursors to O_3, for which the MCAB is designated nonattainment. The contribution of ROG and NO_x to regional ambient O_3 concentrations is the result of complex photochemistry. The increases in O_3 concentrations in the MCAB due to O_3 precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive O_3 concentrations would also depend on the time of year that the precursor emissions would occur because maximum O_3 concentrations tend to occur between April and October when solar radiation is highest. The holistic effect of a single project's emissions of O_3 precursors is speculative due to the lack of reliable and meaningful quantitative methods to assess this impact. Nonetheless, because ROG and NO_x emissions associated with project construction and/or operation would not exceed the PCAPCD significance thresholds, it is not anticipated the project would contribute substantially to regional O_3 concentrations and the associated health effects.

Health effects associated with NO_x and NO_2 (which is a constituent of NO_x) include lung irritation and enhanced allergic responses (CARB 2022b). Because project construction and operations would not generate NO_x emissions that would exceed the PCAPCD mass daily thresholds and because the MCAB is designated as in attainment of the NAAQS and CAAQS for NO_2 and the existing NO_2 concentrations in the area are well below the NAAQS and CAAQS standards, the project would not contribute to exceedances of the NAAQS and CAAQS for NO_2 or result in significant health effects associated with NO_2 and NO_x.

Health effects associated with CO include chest pain in patients with heart disease, headache, light-headedness, and reduced mental alertness (CARB 2022c). If such substantial traffic on a local roadway network occurs during periods of poor atmospheric ventilation, is composed of a large number of vehicles "cold-started" and operating at pollution-inefficient speeds, and is operating on roadways already crowded with non-project traffic, there is a potential for the formation of microscale CO hotspots in the area immediately around points of substantially elevated and localized CO emissions, such as around congested intersections. Because of continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots is steadily decreasing. During construction, the project would result in CO emissions from construction worker vehicles, haul trucks, and off-road equipment. Title 40, section 93.123(c)(5) of the California Code of Regulations, Procedures for Determining Localized CO, PM_{10}, and $PM_{2.5}$ Concentrations (hot-spot analysis), states that "CO, PM_{10}, and $PM_{2.5}$ hot-spot analyses are not required to consider construction-related activities, which cause temporary increases in emissions. Each site which is affected by construction-related

activities shall be considered separately, using established 'Guideline' methods. Temporary increases are defined as those which occur only during the construction phase and last five years or less at any individual site." Since construction activities would be temporary, a project-level construction hotspot analysis would not be required. Regarding operations, the maximum daily CO emissions associated with project-related operational traffic within the PCAPCD jurisdiction are approximately 0.09 pounds per day, as indicated in Table 3.3-4. Therefore, the project would not result in traffic volumes that would generate emissions that would exceed the PCAPCD screening criterion of 550 pounds per day of CO. Thus, the project's CO emissions would not contribute to significant health effects associated with this pollutant.

Health effects associated with PM_{10} include premature death and hospitalization, primarily for worsening of respiratory disease (CARB 2022d). Construction and operation of the project would not exceed the threshold for PM_{10} and would not contribute to exceedances of the NAAQS and CAAQS or obstruct the MCAB from coming into attainment for this pollutant. The project would be required to comply with PCAPCD Rule 228, which limits the amount of fugitive dust generated during construction. Overall, as depicted in Table 3.3-3 and Table 3.3-4, the project would result in a minimal increase in PM_{10} and $PM_{2.5}$ during construction and operations and would not result in potential health effects related to particulate matter.

In summary, because construction and operation of the project would not result in the emissions of criteria air pollutants that would exceed the applicable PCAPCD significance thresholds, and because the PCAPCD thresholds are based on levels that the MCAB can accommodate without affecting the attainment date for the NAAQS and CAAQS, and the NAAQS and CAAQS are established to protect public health and welfare, it is anticipated that the project would not result in health effects associated with criteria air pollutants and the impact would be less than significant.

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than Significant Impact. Based on available information, the project is not anticipated to result in other emissions that have not been addressed under Section 3.3(a) through 3.3(c), above. As such, this analysis focuses on the potential for the project to generate odors.

The occurrence and severity of potential odor impacts depends on numerous factors. The nature, frequency, and intensity of the source; the wind speeds and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying and cause distress among the public and generate citizen complaints. Notably, however, the project would be required to comply with PCAPCD Rule 205 (Nuisance), which prohibits the discharge of any pollutants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public.

Odors would be generated from vehicles and/or equipment exhaust emissions during construction of the project. Odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment and architectural coatings. Such odors would disperse rapidly from the project site and generally occur at magnitudes that would

not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be considered less than significant.

Regarding operations and land use compatibility, odor impacts are addressed qualitatively based on odor screening distances as recommended by PCAPCD guidance. Certain highly odiferous sources have screening distances of two miles. These include wastewater treatment plants, sanitary landfills, and certain industrial facilities (petroleum refineries, asphalt batch plants, and chemical manufacturing). Other odor sources have screening distances of one mile and include recycling and waste transfer stations, coffee roasters, and food processing facilities (PCAPCD 2017). The project involves the combustion of woody biomass, which would potentially result in odors that are similar to woodsmoke that already occurs in the project area, such as from the use of woodburning stoves or fireplaces at residences. Therefore, it is anticipated that impacts associated with odors generated from operations would be less than significant.

Mitigation Measures

No mitigation measures are required.

3.4 Biological Resources

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV.	**BIOLOGICAL RESOURCES** – Would the project:				
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c)	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Setting

Dudek prepared a Biological Resources Assessment technical memorandum for this project (Appendix C) to identify and evaluate biological resource issues and potential constraints to future development posed by such resources, including potential permitting and regulatory requirements. The memorandum includes: a description of the assessment methodology; a description of existing habitat conditions on the site; and an analysis of special-status plant and wildlife species and other sensitive biological resources potentially present, including aquatic resources and sensitive natural communities.

As shown in Figures 7A and 7B, the predominant land cover type within the project site is developed, which includes a mix of hardscaped and landscaped areas, including Northstar Drive, paved driveways, parking lots, buildings, and disturbed road shoulders. The project study area also supports a limited area of mixed coniferous forest within the undeveloped uplands on either side of a perennial creek in the southeastern portion of the project site. There is also a small amount of riparian scrub growing along the southeast bank of an unnamed tributary to West Martis Creek in the southeastern portion of the project site, near the NPOA Recreation Center.

Impact Discussion

a) ***Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?***

Less than Significant with Mitigation Incorporated. Preparation of the Biological Resources Assessment technical memorandum (Appendix C) included queries of the California Department of Fish and Wildlife California Natural Diversity Database, USFWS Inventory for Planning and

Consultation database, and California Native Plant Society's Inventory of Rare and Endangered Plants data to obtain records of special-status plant and animal species occurrences within the project region. All of the 26 plant species and 17 animal species that were identified in those database searches were determined to have a low potential to occur or are not expected to occur due to the lack of suitable habitat or the presence of very low-quality habitat within or adjacent to the project site, the lack of documented occurrences near the project site, and/or the site being outside of the species' known geographic range.

There is a perennial pond adjacent to the project site that could support special-status plants. The pond is located approximately 25 feet from the nearest anticipated limits of disturbance. Thus, the project would not directly affect any special-status species listed or considered for listing under the Federal Endangered Species Act and/or the California Endangered Species Act or that are identified in the California Native Plant Society data. However indirect impacts could occur as a result of the proposed ground disturbance uphill of the pond. Mitigation Measure BIO-1 requires installing exclusion fencing or flagging between the pond/riparian vegetation and the limits of disturbance during construction as well as implementing erosion control and spill prevention measures. These requirements would minimize the chance for accidental encroachment of construction equipment and personnel into the riparian vegetation and minimize the chance for sedimentation and pollutants to enter the riparian vegetation and pond during construction activities. This would ensure that indirect impacts to special status species that may be supported in and near the pond and its associated riparian habitat are avoided or reduced to a less-than-significant level.

The project site provides suitable nesting habitat for numerous local and migratory bird or raptor species protected by the federal Migratory Bird Treaty Act and the California Fish and Game Code. Although no active or inactive bird nests were observed during the field survey conducted as part of preparation of the Preliminary Biological Resources Assessment technical memorandum, the survey was conducted outside of the bird breeding season, when nests are typically unused in the project region. Shrubs, open habitat, and human-made structures and buildings on the project site provide suitable nesting habitat. Thus, the project has the potential to adversely affect migratory birds and raptors**.** However, with implementation of Mitigation Measure BIO-2, potential impacts to nesting birds would be avoided.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less than Significant with Mitigation Incorporated. Dudek documented one perennial creek within the project site and one perennial pond adjacent to the site. Both of these features support riparian habitat. However, neither of these resources would be directly affected by project construction or operation, as shown in the project site plans in Appendix A and in Figures 7A and 7B.

The perennial creek is located near the NPOA Recreation Center. The thermal energy distribution pipeline would be attached to the underside of an existing bridge that provides access to the

recreation center, thus disturbance of riparian habitat associated with the perennial creek would be avoided.

The perennial pond is located east of the driveway that accesses 908 Northstar Drive and 900 Northstar Drive. As shown in Figure 13, all grading and construction activities at the Wood Energy Utility Facility site would occur on the west side of that driveway, generally at least 25 feet from the edge of the pond. Thus, the project would not involve disturbance of the riparian habitat associated with the pond. However, as discussed in response 3.4(a) above, indirect impacts to the pond and adjacent riparian vegetation could occur as a result of the proposed ground disturbance uphill of the pond and its associated riparian habitat. Mitigation Measure BIO-1 requires installing exclusion fencing or flagging between the pond/riparian vegetation and the limits of disturbance during construction as well as implementing erosion control and spill prevention measures. These requirements would minimize the chance for accidental encroachment of construction equipment and personnel into the riparian vegetation and minimize the chance for sedimentation and pollutants to enter the pond during construction activities. This would ensure that indirect impacts to the pond and its associated riparian habitat are avoided or reduced to a less-than-significant level.

After construction, project operation would involve transport of woody biomass material to the Wood Energy Utility Facility using existing paved roads. Project operation would not require any disturbance of biological resources. No additional mitigation measures are required.

c) *Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

Less than Significant with Mitigation Incorporated. Dudek documented one perennial creek and two upland ditches within the project site and one perennial pond adjacent to the site. The creek and pond are anticipated to meet the criteria to be considered jurisdictional aquatic resources subject to federal and state regulation. However, as discussed in response 3.4(b), project construction would avoid direct impacts to these features. As shown in Figure 13, all grading and trenching would occur within the existing disturbed area at 908 Northstar Drive and immediately adjacent to Northstar Drive, generally at least 25 feet from the edge of the perennial pond. However, indirect impacts to the pond could occur where ground disturbance is proposed within 50 feet. Mitigation Measure BIO-1 requires installing exclusion fencing or flagging between the pond/riparian vegetation and the limits of disturbance during construction as well as implementing erosion control and spill prevention measures. These requirements would minimize the chance for accidental encroachment of construction equipment and personnel into the riparian vegetation and minimize the chance for sedimentation and pollutants to enter the pond during construction activities. This would ensure that indirect impacts to the pond and its associated riparian habitat are avoided or reduced to a less-than-significant level.

The thermal energy distribution pipeline would be attached to the underside of an existing bridge that crosses the perennial creek and this activity would not require dredging or filling activities within or adjacent to the creek. No additional mitigation measures are required.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less than Significant with Mitigation Incorporated. The Northstar California community supports residential, commercial, and recreational land uses. Wildlife movement and nursery sites are likely to occur in the undeveloped areas of the community where natural forest and other vegetation communities remain. The project site is comprised of the proposed Wood Energy Utility Facility location, the thermal energy distribution pipeline alignment, and the point of connecting to each of the facilities that would receive thermal energy from the Wood Energy Utility Facility. The Wood Energy Utility Facility would be constructed within the existing disturbed area at 908 Northstar Drive, which supported a building and associated hardscape between 1971 and 2022. This site is surrounded by pavement (driveway and parking lot) and the adjacent Northstar Fire Station. This site does not support wildlife movement, migration, or nursery sites. The thermal energy distribution pipeline would be located in a trench along Northstar Drive. The trench would generally be located below the existing pavement, and in some cases adjacent to the existing pavement. Northstar Drive does not support wildlife movement, migration, or nursery sites. The connection points for each facility would be located within each facility's existing mechanical rooms and would have no effect on wildlife activity.

Thus, potential impacts to wildlife movement and migration patterns would be limited to the potential effects to migratory birds as discussed in response 3.4(a) above. With implementation of Mitigation Measure BIO-2, this impact would be reduced to a less than significant level.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less than Significant with Mitigation Incorporated. The Placer County Code and General Plan policies establish standards for protection of aquatic resources, sensitive natural communities, special-status species, and trees.

The proposed project would have no direct effects to any aquatic resources or sensitive natural communities, as discussed above in responses 3.4(b) and 3.4(c). With implementation of Mitigation Measure BIO-1, the potential for indirect impacts to these resources would be reduced to a less than significant level.

The project's direct impacts to special status species would be limited to nesting birds as discussed in response 3.4(a) and these impacts would be reduced to a less than significant level with implementation of Mitigation Measure BIO-2; the Placer County Code does not address nesting birds. The project's potential indirect impacts to special status species would be reduced to a less than significant level with implementation of Mitigation Measure BIO-1, as discussed in response 3.4(a).

There are no oak woodlands or individual oak tree within or adjacent to the project site. Thus, the provisions of Placer County Code Article 19.50, Woodland Conservation, are not applicable. Within the 908 Northstar Drive portion of the project site, the project would require removal of four pine

trees that each have a diameter greater than 6 inches. As reported in the Biological Resources Assessment technical memorandum (Appendix B) and shown in Figure 7A, the land within the parcel at 910 and 908 Northstar Drive is considered "developed" and the property does not contain a natural vegetation community. The trees proposed to be removed were adjacent to the previously existing building at this site and do not provide substantial habitat value.

Approval for the proposed tree removal would be provided through NCSD's issuance of a grading permit pursuant to the grading ordinance (Placer County Code Article 15.48) and thus the project would not require a separate tree removal permit, in accordance with Placer County Code Section 12.20.040. All trees within the 908 Northstar Drive portion of the project site, including the four trees proposed to be removed, are depicted on the site plans provided in Appendix A and the Grading Plan shown in Figure 13. Additionally, the project plans include a Demolition and Temporary BMP plan (Appendix A, Improvement Plans, Sheet C2.0), which indicates use of a temporary fence to protect trees that are proposed to be retained onsite.

Placer County Code Article 12.20, Tree Preservation in Area East of Sierra Summit does not require replacement of trees or payment of mitigation fees. Proposed new vegetation is limited to use of a native seed mix in vegetated stormwater infiltration areas. No new trees are proposed to be planted. Mitigation Measure BIO-3 identifies requirements of the Grading Plan and/or Demolition and Temporary BMP to ensure that appropriate tree protection measures are implemented to avoid damage to or loss of trees proposed to be retained onsite.

With implementation of Mitigation Measures BIO-1, BIO-2, and BIO-3, the project would not conflict with County policies, ordinances, and regulations regarding protection of biological resources.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. There are no adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other conservation plans that apply to the project site. The Placer County Conservation Program applies only to the central and western portions of the County. The project would have no impact related to conservation plans. No mitigation measures are required.

Mitigation Measures

MM-BIO-1 Aquatic Resources and Special-Status Plant Protection. The Grading Plan for construction activities at 908 Northstar Drive shall identify placement of exclusion fencing, flagging, or similar between the pond and associated riparian vegetation located east of the project site and the limits of disturbance during construction. The Grading Plan shall also identify erosion control and spill prevention measures to be implemented at this location to ensure that material that may erode or runoff from the project site does not enter the pond and associated riparian vegetation during construction.

MM-BIO-2 Nesting Bird and Raptor Avoidance. NCSD shall retain a qualified biologist to implement the following procedures during any project related ground disturbance, vegetation removal, grading, trenching, and construction activities:

- Conduct a pre-construction survey for nesting birds no more than two days prior to any vegetation or structure removal or ground-disturbing activities conducted during the nesting season (March through August). The survey shall cover the limits of construction and suitable nesting habitat within 500 feet for raptors and 100 feet for other nesting birds, as feasible and accessible.
- If any active nests are observed during surveys, establish a suitable avoidance buffer from the active nest. The buffer distance will typically range from 50 to 500 feet and shall be determined based on factors such as the species of bird, topographic features, intensity and extent of the disturbance, timing relative to the nesting cycle, and anticipated ground disturbance schedule. Limits of construction to avoid active nests shall be established in the field with flagging, fencing, or other appropriate barriers and should be maintained until the chicks have fledged and the nests are no longer active, as determined by the qualified biologist.
- If vegetation removal activities are delayed, additional nest surveys shall be conducted such that no more than 7 days elapse between the survey and vegetation removal activities.
- If an active nest is identified in or adjacent to the construction zone after construction has started, work in the vicinity of the nest shall be halted until the qualified biologist can provide appropriate avoidance and minimization measures to ensure that the nest is not disturbed by construction. Appropriate measures may include a no-disturbance buffer until the birds have fledged and/or full-time monitoring by a qualified biologist during construction activities conducted near the nest.

MM-BIO-3 Tree Protection. The final Grading Plan and/or Demolition and Temporary BMP Plan shall include placement of tree protection fencing around all trees to be retained that are within 75 feet of grading, excavation, and trenching. Tree protection fencing shall consist of a minimum 4-foot-high plastic mesh fence or chain link fence and shall be installed at the outermost edge of the critical root zone of each protected tree or group of protected trees. A minimum of one sign shall be installed on the fence around each individual protected tree. Signs placed on fencing around a group of protected trees shall be placed at approximately 50-foot intervals. The size of each sign must be a minimum of 8.5 inches by 11 inches and must contain the following language: PROTECTED TREE. DO NOT REMOVE SIGN OR FENCE. Protective fencing shall remain in place throughout the entire construction period.

3.5 Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

Setting

Dudek prepared a Built Environment Inventory and Evaluation Report (Appendix D) and a Cultural Resources Assessment (Appendix E). The setting summary and impact analysis presented in this section is based on both reports, which each contain more detailed information on the project site setting relative to cultural resources. At the time the Built Environment Inventory and Evaluation Report was prepared, there was a building present at 908 Northstar Drive. As discussed further below, the Built Environment Inventory and Evaluation Report found that the building did not have any historical significance. After completion of the Built Environment Inventory and Evaluation Report, NCSD demolished the building. Thus, demolition of that building is not part of the proposed project.

Archaeological Context

The Cultural Resources Assessment evaluates the potential for the project site to support archaeological resources. The study area, or Area of Potential Effect (APE), used for the Cultural resources assessment includes approximately 5.3 acres, consisting of the parcel at 900 Northstar Drive and the parcel at 908 and 910 Northstar Drive as well as a 30-foot corridor centered on the thermal energy distribution pipeline route.

It is believed that human occupation of the Sierra Nevada began at least 9,000 years ago, although there is limited available data because only a handful of artifacts from this period have been recorded. Archaeologists have been able to develop much more detailed understanding of subsequent prehistoric temporal sequences due to the greater amount of available data. The Tahoe Reach is currently the most commonly applied cultural temporal sequence within the region. This sequence includes several phases, of which the Martis Complex and the Kings Beach Complex are most applicable to the proposed project area.

The Martis complex has been identified to extend from Lassen County to Alpine County and occurred between 3000 B.C. to approximately 500 A.D. Subsistence during the Martis Complex was based on

hunting and seed collecting, with populations that migrated between higher and lower elevation areas to obtain seasonally available resources and avoid harsh weather conditions. During this period there was a more intensive exploitation of local materials, rather than non-local cherts and obsidian, for the manufacture of formed flaked tools.

The Kings Beach complex is placed as spanning from 500 A.D. to the time of contact with European settlers, generally around 1750. The population migration patterns that occurred in the Martis complex continued during this period, however subsistence shifted toward a focus on fishing and gathering, with a greater reliance on exploitation of acorns as evidenced by the increased presence of bedrock mortars and pestles. In addition, bow and arrow technology was adopted which allowed populations to exploit additional wildlife resources for food. There was also greater use of obsidian and chert in place of volcanic materials such as basalt, which suggests that there was an increase in trade with neighboring tribes during this period because high quality obsidian and chert was not available locally.

The period after 1750 is called the Ethnohistoric period. The project region was in Washoe tribal territory during this period. This group's primary use area included the areas surrounding Lake Tahoe; extending north to Honey Lake, south beyond Topaz lake, west beyond the present Town of Truckee, and east beyond present Reno and Virginia City. The Washoe subsistence strategy was centered on fishing, hunting, and collecting vegetative resources. This group was semi-sedimentary, with larger central habitation areas and surrounding satellite sites used during hunting excursions and for pre-processing of collected plant resources such as acorns and pinyon. Common tools included the bows and arrow, traps, harpoons, hooks, nets, portable and stationary grinding implements, and pestles and handstones.

Historic Context

Post-contact history for the State of California is generally divided into three periods: the Spanish Period (1769–1822), which began with the establishment of a settlement at San Diego and the founding of Mission San Diego de Alcalá; the Mexican Period (1822-1848), which began with Mexico's independence from Spain in 1821; and the American Period (1848–present) which began with the end of the Mexican American War at the signing of the Treaty of Guadalupe Hidalgo in 1848 and is when California became a territory of the United States.

Initial Euroamerican exploration of the area occurred in the early 1830s, approximately thirty years before initial Euroamerican settlement. A Paiute Chief, for which the City of Truckee is named, guided the first explorers through the area and continued to shepherd emigrants west after gold was discovered at Coloma in 1848. This led to a surge of migrants entering California in search of easily acquired wealth and began a period of rapid infrastructure development. In 1859, the Central Pacific Railroad Company developed transportation routes that connected Sacramento to Virginia City, Nevada, where silver had been recently discovered. Joseph Henry Gray, George Schaffer, and S.S. Coburn profited from the developing railroad and established the area's first waystations, businesses, and industries, including lumber and ice harvesting.

Construction of the railroad and the extension of the mines in Virginia City caused Truckee's lumber mills to flourish. Timber demand continued to increase as more towns were settled along the rail line. Truckee's economy dwindled in the late nineteenth century until development of the winter sports industry, which was thrust into the national spotlight during the 1960 Winter Olympics, rejuvenated the region's economy. During the mid and late-twentieth century, five winter resorts were developed in the Truckee area, including

Northstar California, which was named Northstar at Tahoe Ski Resort from 1971 to 2011. Originally, the Fibreboard Corporation acquired thousands of acres of land in and around Martis Valley for a tree farm, and later developed the Northstar at Tahoe Ski Resort on a portion of this land. The Initial wave of development at the resort included resort lodging and trail systems as well as the office building located at 908 Northstar Drive and two fire stations, including the station located at 910 Northstar Drive.

NCSD was formed in 1990 to provide the Northstar community, with services including water supply, wastewater collection and conveyance, solid waste collection, road maintenance and snow removal, and trail maintenance. NCSD used the office building at 908 Northstar Drive as their administrative office building until 2015. In 2015, NCSD constructed a new administrative building, addressed as 900 Northstar Drive, which is located directly north of 908 Northstar Drive. NCSD demolished the building at 908 Northstar Drive in late 2022.

Impact Discussion

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

No Impact. The Built Environment Inventory and Evaluation Report (Appendix D) found that the buildings at 908 Northstar Drive and 910 Northstar Drive did not meet any of the criteria for being considered eligible for listing in the National Register of Historic Places or the California Register of Historic Resources. Specifically, although the buildings were constructed as part of the initial development of the Northstar ski resort, neither of them contributed to the broad patterns associated with the winter resort culture present in the Truckee area or the development of the Northstar resort; and neither was directly tied to an important person and the place where that individual conducted or produced the work for which they are known. Further they are both ubiquitous and prefabricated industrial buildings that are considered utilitarian and not representative of a particular style of architecture; are not known to be the work of an important architect, builder, engineer, or designer; are not known to have been built using an innovative construction technique; and are not known to contain important information about such topics as construction techniques or human activity.

The buildings located in the southern part of the project area (the Village at Northstar and NPOA Recreation Center) were constructed around 2006. They are not historic-era buildings and do not rise to the level of requiring consideration as potential CEQA historical resources.

Because none of the buildings within or adjacent to the project site are or were considered eligible for listing in the National Register of Historic Places or the California Register of Historic Resources, the proposed project would have no impact to historical resources. No mitigation measures are required.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

No Impact. The Cultural Resources Assessment (Appendix E) included a records search through the North Central Information Center. This search identified that 37 previous cultural technical

studies have been performed in the search area, which includes the project site and all areas within one half-mile of the site. Five of those previous studies covered a least a portion of the project site, but in total, less than 25 percent of the project site had been previously surveyed. Further, the records search identified 20 cultural resources within the records search area but none of them are mapped as intersecting the project APE.

Dudek also completed an intensive pedestrian survey of the project APE. The majority of the APE has been developed and consists of paved roadways, parking lots, and buildings. Undeveloped areas remain along the edges of the APE. Ground surface visibility varied from very low in areas with dense pine needle duff, to moderate around areas of disturbance from pedestrian and bike traffic as well as rodent burrows. Subsurface exposures were opportunistically sought along existing trail surfaces, drainages, and rodent burrows. No previously recorded or newly identified cultural resources were observed.

Based on the results of the records search, intensive pedestrian survey, correspondence with the Native American Heritage Commission (NAHC) and local tribal representatives, and review of previous technical studies for this area, and given the relatively limited degree of disturbance required by the project, the likelihood of encountering unanticipated significant subsurface archaeological deposits or features is considered low. Thus, the project would result in no impact to any potentially significant archaeological resources. No mitigation measures are required.

c) Would the project disturb any human remains, including those interred outside of formal cemeteries?

No Impact. There are no known human burial sites within the Northstar California community, including the project APE. Therefore, is it not expected that any human remains would be encountered during project construction. In the unlikely event that human remains are encountered, Section 7050.5 of the California Health and Safety Code, requires that the county coroner be immediately notified of the discovery. The coroner would provide a determination within 48 hours of notification. No further excavation or disturbance of the identified material, or any area reasonably suspected to overlie additional remains, may occur until a determination has been made. If the county coroner determines that the remains are, or are believed to be, Native American, they must notify the NAHC within 24 hours. In accordance with California Public Resources Code Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendent from the deceased Native American. Within 48 hours of their notification, the most likely descendent will recommend to the lead agency their preferred treatment of the remains and associated grave goods. Adherence to the California Health and Safety Code would ensure that if any human remains are encountered during construction, the remains will be appropriately evaluated and handled such that the project would result in no impact to such resources. No mitigation measures are required.

Mitigation Measures

No mitigation measures are required.

3.6 Energy

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Energy – Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Setting

The primary energy source required for the project would be petroleum during short-term construction and woody biomass and petroleum during long-term operations. According to the U.S. Energy Information Administration, California used approximately 524 million barrels of petroleum in 2020, with the majority (433 million barrels) used for the transportation sector (Energy Information Administration 2022). This total annual consumption equates to a daily use of approximately 1.4 million barrels of petroleum. There are 42 U.S. gallons in a barrel, so California consumes approximately 60 million gallons of petroleum per day, adding up to an annual consumption of 22 billion gallons of petroleum. However, technological advances, market trends, consumer behavior, and government policies could result in significant changes in fuel consumption by type and in total. At the federal and state levels, various policies, rules, and regulations have been enacted to improve vehicle fuel efficiency, promote the development and use of alternative fuels, reduce transportation-source air pollutants and GHG emissions, and reduce vehicle miles traveled.

Impact Discussion

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than Significant Impact. Potential impacts associated with the project's demand for electricity, natural gas, and petroleum during short-term construction and long-term operations have been evaluated herein.

Construction

Electricity. Temporary electric power for as-necessary lighting and electronic equipment (such as computers inside temporary construction trailers and heating, ventilation, and air conditioning) would be provided by Liberty Utilities. The amount of electricity used during project construction would be minimal because typical demand stems from the use of electronic equipment, in addition to electrically powered hand tools. As the electricity used for construction activities would be temporary and minimal,

impacts related to electricity consumption during project construction are determined to be less than significant.

Natural Gas. Natural gas is not anticipated to be required during construction of the proposed project. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed under the subsection "Petroleum". Any minor amounts of natural gas that may be consumed as a result of construction would be temporary and negligible and would not have an adverse effect on the environment; therefore, impacts are determined to be less than significant.

Petroleum. Offroad equipment used during construction of the project would primarily rely on diesel fuel, as would vendor trucks involved in delivery of materials to the individual parcels, and haul trucks importing or exporting soil and other materials to and from the project site. In addition, construction workers would travel to and from the project site throughout the duration of construction. It is assumed in this analysis that construction workers would travel in gasoline-powered light-duty vehicles. Fuel consumption from construction equipment and vehicle trips was estimated by converting the total carbon dioxide (CO_2) emissions anticipated to be generated by the construction of the project to gallons using conversion factors for CO_2 to gallons of gasoline or diesel. The conversion factor for gasoline is 8.78 kilograms per metric ton (MT) CO_2 per gallon, and the conversion factor for diesel is 10.21 kilograms per MT CO_2 per gallon (The Climate Registry 2022). Appendix B lists the assumed equipment usage and vehicle trips for construction for the project.

The estimated diesel fuel usage from construction equipment, haul trucks, and vendor trucks, as well as estimated gasoline fuel usage from worker vehicles, is shown in Table 3.6-1.

Table 3.6-1. Total Proposed Project Construction Petroleum Demand

Project	Off-Road Equipment (diesel)	Haul Trucks (diesel)	Vendor Trucks (diesel)	Worker Vehicles (gasoline)
	Gallons			
Construction	9,784.98	1,008.58	468.94	1,117.07
	Total Petroleum Consumed for Project Construction			12,379.57

Source: Appendix B

In summary, construction associated with the development of the project is estimated to consume a total of approximately 12,380 gallons of petroleum. Notably, the project would be subject to CARB's In-Use Off-Road Diesel Vehicle Regulation that applies to certain off-road diesel engines, vehicles, or equipment greater than 25 horsepower. The regulation (1) imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles; (2) requires all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System) and labeled; (3) restricts the adding of older vehicles into fleets starting on January 1, 2014; and (4) requires fleets to reduce their emissions by retiring, replacing, or repowering older engines or installing VDECS (i.e., exhaust retrofits). The fleet must either show that its fleet average index was less than or equal to the calculated fleet average target rate, or that the fleet has met the Best Achievable Control Technology requirements.

Overall, while construction activities would consume petroleum-based fuels, consumption of such resources would be temporary and would cease upon the completion of construction. Further, the petroleum consumed related to construction would be typical of construction projects of similar types and sizes and would not necessitate new petroleum resources beyond what are typically consumed in California. Therefore, because petroleum use during project construction would be temporary and minimal and would not be wasteful or inefficient, impacts are determined to be less than significant.

Operation

Electricity. The project would require electricity for operation of the building and boiler electronics. The increase in electricity demand was estimated at 797,542 kilowatt-hours per year. The proposed 4.5-kilowatt solar photovoltaic panel system would offset a portion of this demand, by approximately 7,608 kilowatt-hours per year (National Renewable Energy Laboratory 2023). The building would be constructed consistent with all applicable requirements under Title 24 energy efficiency standards and would not be considered inefficient, wasteful, or unnecessary, and impacts would be less than significant.

Natural Gas. The project would result in a net decrease in natural gas demand since it is expected that the Wood Energy Utility Facility would generate sufficient thermal energy to offset consumption of approximately 50,000 MMBtu of energy from natural gas per year. Natural gas consumption of the project, therefore, would not be considered inefficient, wasteful, or unnecessary, and impacts would be less than significant.

Petroleum. During operations, the majority of fuel consumption resulting from the project would involve the use of trucks traveling to and from the project site. Petroleum fuel consumption associated with motor vehicles is a function of the VMT and fuel efficiency. The net change in fuel estimates for the project versus existing scenario is provided in Table 3.6-2.[5]

Table 3.6-2. Petroleum Demand – Operations

Scenario	On-Road Vehicles - Diesel
	Gallons
Project	814.64
Existing	3,462.09
Net Change (Project – Existing)	**(2,647.45)**

Notes: Numbers in parentheses represent a negative number.
Source: Appendix B

As depicted in Table 3.6-2, implementation of the project would lead to a decrease in petroleum consumption of approximately 2,647 gallons of petroleum per year, primarily due to the reduction in

[5] As there are no jurisdictional boundaries or thresholds for energy, the petroleum demand from on-road vehicles is presented for total travel between the MRF and the proposed NCSD Wood Energy Utility Facility for the proposed project conditions and between the MRF and Full Circle Compost for the existing conditions, rather than just within Placer County.

truck VMT for the transport of wood chips as compared to the existing scenario.[6] As such, the petroleum consumption associated with the project would not be considered inefficient or wasteful, and impacts would be less than significant.

Renewable Energy Potential

As part of the project's design process, the project applicant considered how the project could potentially increase its reliance on renewable energy sources to meet the project's energy demand. Renewable energy sources that were considered for their potential to be used to power the project, consistent with the California Energy Commission's (CEC's) definition of eligible renewables, include biomass,[7] geothermal, solar, wind, and small hydroelectric facilities.

Given the project's location in densely forested area and the nature of the project, there are considerable site constraints including limited land availability, incompatibility with onsite and surrounding land uses for large scale power generation facilities, unknown interconnection feasibility, compatibility with utility provider systems, and no known water or geothermal resources to harness, that would eliminate the potential for biomass, geothermal, wind, and hydroelectric renewable energy to be installed onsite. As described in Section 2.5, the NCSD anticipates purchasing approximately 3,800 BDT of woody biomass from TTSD annually, which would include between approximately 400 and 750 BDT of woody biomass generated from the defensible space and forest fuels management programs. Regarding solar power, the project would install a 4.5-kilowatt solar photovoltaic panel system, which is estimated to result in approximately 7,608 kilowatt-hours per year (National Renewable Energy Laboratory 2023).

In summary, the project includes the onsite renewable energy source (i.e., solar) that was determined to be feasible for the site and does not include the onsite renewable energy sources that were determined to be infeasible.

As explained above, the project would use renewable energy onsite as determined to be feasible and would not result in wasteful, inefficient, or unnecessary consumption of energy resources, including electricity, natural gas, or petroleum during project construction or operation. Impacts would be less than significant.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less than Significant Impact. The project would be subject to and would comply with, at a minimum, the California Building Energy Efficiency Standards (California Code of Regulations, Title 24) 2022 standards. Part 6 of Title 24 establishes energy efficiency standards for residential and non-residential buildings to reduce energy demand and consumption. Part 11 of Title 24 sets forth voluntary and mandatory energy measures that are applicable to the project under the California Green Building Standards Code. As discussed under criterion "a" above, the project would result in

6 Based on the annual reduction in petroleum from project operations, it would take about 5 years to offset the total petroleum required for short-term construction.

7 The CEC's definition of biomass as an eligible renewable is based on the generation of electricity using biomass as a fuel. Although the project would not use biomass to generate electricity per the CEC defnition, it would use woody biomass to beneficially replace natural gas for heating within the connected facilities.

a temporary demand for petroleum during construction and an increase in electricity demand for long-term operations; however, compared to the existing scenario, the project would result in a long-term decrease in demand for petroleum and natural gas during operations. Overall, the project would meet and exceed the applicable California code requirements for energy efficiency.

Because the project would comply with and exceed the existing energy standards and regulations, the project would result in a less than significant impact associated with the potential to conflict with energy standards and regulations.

Mitigation Measures

No mitigation measures are required.

3.7 Geology and Soils

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS – Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

Setting

As shown on Figures 2 and 9, the project site includes the location of the proposed Wood Energy Utility Facility building at 908 Northstar Drive and the thermal energy distribution pipeline alignment along Northstar Drive between 900 and 908 Northstar Drive and between 908 Northstar Drive and the NPOA Recreation Center. The California Department of Conservation Seismic Hazards Map application identifies that there are no Alquist Priolo fault zones, and there are no identified fault zones, liquefaction zones, or landslide zones within or proximate to the project site. The nearest Alquist Priolo fault zone to the project site is the West Tahoe Fault, located near Emerald Bay, Lake Tahoe (California Department of Conservation 2022b). The Martis Valley Community Plan identifies that region is located in a geologic zone of primarily volcanic rocks created by block faults, and that the area is subject to potential seismic activity due to the many faults known to occur throughout the area (Placer County 2003). The Geotechnical Investigation report prepared for the Wood Energy Utility Facility site (Appendix F) found that there are no known faults within the project site and no possibility of liquefaction at the site.

Topography in the project site is generally gently to moderately sloping, with lower elevations in the southern portion of the project site, at the 908 Northstar Drive property, and higher elevations in the northern portion, within the Village at Northstar and at the NPOA Recreation Center. The Martis Valley Community Plan states that much of the planning area is classified as having moderate to high slope stability, particularly areas west of SR 267 (Placer County 2003), which includes the project site.

The Town of Truckee General Plan 2025 Environmental Impact Report states that the majority of soil underlying the Town of Truckee are silty/sandy gravels or gravelly/silty sands that consist of glacial till, moraines and outwash which contain large quantities of sediments that were transported to the Truckee Basin from the crest of the Sierra Nevada by glacial activity, and that soil depths typically range from 20 to 60 inches (Town of Truckee 2006). These conditions are also present at the project site. The Geotechnical Investigation report found that the site is underlain by medium dense sands with silt and medium dense silty sand as well as cobbles up to seven inches in size. The soil overlies volcanic bedrock. Further, the Biological Resources Assessment technical memorandum (Appendix C) identifies that there are four soil

types mapped on the project site. As shown in Figure 6, they include Fugawee-Tahoma complex, 2 to 30 percent slopes; Jorge very stony sandy loam, 30 to 50 percent slopes; Jorge-Cryumbrepts, wet-Tahoma complex, 2 to 30 percent slopes; and Jorge-Tahoma complex, 2 to 30 percent slopes (USDA 2021a). These soils are generally well-drained and composed of high percentages of silt, sand, and gravel, which are not subject to the shrink and swell conditions associated with expansive soils.

No septic systems are in use throughout the Northstar California community. Wastewater generated within the community is conveyed through existing sanitary sewer lines that are owned and maintained by NCSD. The wastewater is conveyed to the Tahoe-Truckee Sanitation Agency in Truckee California for treatment.

Impact Discussion

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No Impact. Construction and operation of the proposed project does not have the potential to exacerbate the risk for rupture of a known earthquake fault to occur and thus this discussion is provided for informational purposes because the potential effects of ground rupture represent an effect of the environment on the project, rather than an effect of the project on the environment.

Ground disturbance activities required for construction of the proposed project would include grading and excavation at the 908 Northstar Drive property and trenching along the thermal energy distribution pipeline alignment. As noted above, there are no Alquist Priolo fault zones or other known earthquake faults within or adjacent to the project site (California Department of Conservation 2022b). A Geotechnical Investigation report was prepared for the 908 Northstar Drive property (Appendix F), which found that there are no mapped or potentially active faults that cross this property, and the nearest faults approximately one mile west of the site. Thus, the project site is not exposed to any potential for rupture of a known earthquake fault. Further, construction and operation of the proposed project does not have the potential to exacerbate the potential for rupture of a known earthquake fault to occur. No mitigation measures are required.

ii) Strong seismic ground shaking?

No Impact. Construction and operation of the proposed project does not have the potential to exacerbate the risk for strong seismic shaking to occur and thus this discussion is provided for informational purposes because the potential effects of seismic ground shaking represent an effect of the environment on the project, rather than an effect of the project on the environment.

As discussed in response 3.7(a)i, there are no Alquist Priolo fault zones in the region. However, there are a number of known faults throughout the Martis Valley Community Plan area, which includes the project site, and earthquakes have been identified as a potential hazard for the area. As discussed in the Geotechnical Investigation report, the proposed project would be constructed

in compliance with the requirements set forth in the California Building Code and Placer County Code related to excavation, grading, construction earthwork, liquefaction potential, and soil strength loss (Appendix F), Compliance with these standards would ensure that hazards associated with seismic ground shaking are minimized.

The California Department of Conservation Seismic Hazards Map application indicates that there is no potential for landslides or slope instability and a low potential for liquefaction (California Department of Conservation 2022b) at the project site. Further, the Geotechnical Investigation report provides site-specific data and based on the finding that the site is underlain by medium dense sands and silty sands with cobbles that overlie volcanic bedrock, the Geotechnical Investigation report concludes there is no possibility of liquefaction to occur. Further the report concludes that the natural slopes at the site are stable (Appendix F). No avalanches, mud slides or other geologic or geomorphological hazards have been observed at or near the site.

Compliance with the California Building Code, Placer County Code, and recommendations presented in the Geotechnical Investigation report would ensure that the project does not expose people or structures to potential effects associated with seismic-related ground shaking. No mitigation measures are required.

iii) Seismic-related ground failure, including liquefaction?

No Impact. As stated in response 3.7(a)(ii), based on the subsurface conditions at the project site, the Geotechnical Investigation report finds that there is no possibility for liquefaction to occur at the project site and the natural slopes at the site are stable (Appendix F). The proposed project would be constructed in compliance with the requirements set forth in the California Building Code and Placer County Code related to seismic hazards and therefore would not cause adverse effects or risks related to such hazards. No mitigation measures are required.

iv) Landslides?

No Impact. As stated in response 3.7(a)(ii), the Geotechnical Investigation report finds that the natural slopes at the site are stable (Appendix F). There are no steep slopes within or adjacent to the proposed Wood Energy Utility Facility location, and the proposed thermal energy distribution pipeline would be installed below-grade along Northstar Drive. The project would not create any new steep slopes. As shown in Figure 13, the proposed grading plan reflects a maximum post-construction slope of 2:1 (horizontal to vertical), consistent with the requirements of the Placer County Code Section 12.48.540. There are no risks of landslide at the project site and the project would create landslide risks. Thus, the project would have no impact related to landslides. No mitigation measures are required.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less than Significant with Mitigation Incorporated. The project site consists of disturbed land, some of which already supports impervious surfaces and ornamental landscaping. The 908 Northstar Drive property supported a building between 1971 and 2022, which had a similar footprint as the proposed Wood Energy Utility Facility building. The thermal energy distribution

pipeline would be installed within a trench generally located beneath the pavement of Northstar Drive and in some cases within a below-grade trench located adjacent to the existing pavement. This area was previously disturbed during construction of Northstar Drive and is subject to ongoing disturbance associated with snow plowing on Northstar Drive, which results in deposition of snow along the roadside shoulders. As shown in Figure 2, there is very little soil and vegetation present along and immediately adjacent to Northstar Drive.

Construction of the project would include grading and excavation at the 908 Northstar Drive property and trenching along the thermal energy distribution pipeline alignment. Because these activities would occur where topsoil has already been disturbed, the project would not result in any further loss of topsoil.

There is a potential for soil erosion to occur during the trenching, excavation, and grading necessary to accomplish project construction. As reflected in the Grading Plan in Figure 13, construction of the Wood Energy Utility Facility at the 908 Northstar Drive site would require excavation to a maximum depth of 17 feet at the southwest corner of the chip bin, and total soil cuts of approximately 1,770 cubic yards. Installation of the thermal energy distribution pipeline would require approximately 968 cubic yards of soil cuts and 846 cubic yards of fill, as shown in Appendix A, NCSD Biomass Transmission Plans, Sheet C4.0.

Placer County Code Section 15.48.630 identifies requirements to control erosion and sedimentation during grading through the use of BMPs. The proposed site plans include a Demolition and Temporary BMP plan (Appendix A, Improvement Plans, Sheet C2.0) and a Temporary Erosion Control Plan (Appendix A, NCSD Biomass Transmission Plans, Sheet CT1.0) which identify the construction BMPs proposed to be implemented to ensure that soil erosion is minimized. These include placement of soil and tree protection fencing, silt fencing, gravel bag check dams, and temporary stormwater inlet protection. Mitigation Measures GEO-1, GEO-2, and GEO-3 identify required content of the Improvement Plans and final Geotechnical Investigation report to ensure compliance with the Placer County Code. Such compliance would ensure that the project does not result in substantial soil erosion and would reduce this impact to a less-than-significant level.

c) ***Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?***

No Impact. The project site consists of disturbed land, some of which already supports impervious surfaces and ornamental landscaping. The 908 Northstar Drive property supported a building between 1971 and 2022, which had a similar footprint as the proposed Wood Energy Utility Facility . The thermal energy distribution pipeline would be installed within a trench beneath and below-grade adjacent to the pavement of Northstar Drive. As noted above, there are no Alquist-Priolo fault zones in the project area and no known faults cross the project site (California Department of Conservation 2022b and Appendix F). Further, the project site is not located within a designated liquefaction zone (California Department of Conservation 2022b) and the Geotechnical Investigation report found there is no possibility of liquefaction at the project site due to the characteristics of the soil underlying the project site (Appendix F).

The proposed project would be constructed in compliance with the requirements set forth in the California Building Code and Placer County Code related to seismic hazards and therefore would not cause adverse effects or risks related to such hazards. As described in response 3.7(b), project construction would involve removal of some areas of pavement and limited subsurface excavation, grading and trenching. Any new or modified slopes that are not paved would have a maximum grade of 2:1, as shown on the Grading Plan in Figure 13 and consistent with requirements of the Placer County Code. No mitigation measures are required.

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

No Impact. As noted in the Setting section above and shown in Figure 6, there are four soil types mapped on the project site - Fugawee-Tahoma complex, 2 to 30 percent slopes; Jorge very stony sandy loam, 30 to 50 percent slopes; Jorge-Cryumbrepts, wet-Tahoma complex, 2 to 30 percent slopes; and Jorge-Tahoma complex, 2 to 30 percent slopes (USDA 2021a). These soils are generally well-drained and composed of high percentages of silt, sand, and gravel, which are not subject to the shrink and swell conditions associated with expansive soils. The Geotechnical Investigation report found that site soils consist of medium dense sands with cobbles and boulders overlying volcanic bedrock (Appendix F). Thus, the project site does not contain expansive soils and no impact would occur. No mitigation measures are required.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The project would construct a building in the same location of the building previously located at 908 Northstar Drive to house the proposed Wood Energy Utility Facility. All wastewater generated at the Wood Energy Utility Facility would be conveyed through existing sanitary sewer lines to the Tahoe-Truckee Sanitation Agency wastewater treatment plant. No septic tanks or alternative wastewater disposal systems would be constructed or used, and the project would have no impact associated with such systems.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant with Mitigation Incorporated. There are no known paleontological resources or unique geologic features in the project vicinity. The project would be constructed at an existing, previously developed site and would require minimal grading and excavation to accommodate the proposed Wood Energy Utility Facility, while trenching to a maximum depth of 4 feet would be needed for installation of the thermal energy distribution pipeline. Given the relatively limited degree of disturbance required by the project, it is unlikely that paleontological resources would be disturbed during these activities. However, a significant impact would occur if a unique paleontological resource or site is unexpectedly encountered and destroyed. With implementation of Mitigation Measure GEO-4, such potential resources would be evaluated and appropriate management measures implemented where necessary to ensure that no unique paleontological resources are destroyed, and this impact would remain less than significant.

Mitigation Measures

MM-GEO-1 Improvement Plans. NCSD shall prepare Improvement Plans that show all physical improvements for the project as well as pertinent topographical features both on and offsite. All existing and proposed utilities and easements, onsite and adjacent to the project, which may be affected by planned construction, shall be shown on the plans.

NCSD shall retain a third-party qualified plan-check firm to review the Improvement Plans to verify compliance with the Placer County Code. A Building Permit shall not be issued until the Improvement Plans are approved by the third-party plan-check firm. NCSD shall submit to the Placer County Engineering and Surveying Division one copy of the Record Drawings in digital format, one black line hardcopy, and one PDF copy. The digital format is to allow integration with Placer County's Geographic Information System. The final approved blackline hardcopy Record Drawings will be the official document of record.

MM-GEO-2 Grading, Drainage, and Erosion Control. The Improvement Plans shall show all proposed grading, drainage improvements, vegetation and tree removal and all work shall conform to provisions of the County Grading Ordinance (Placer County Code Article 15.48) and Stormwater Quality Ordinance (Placer County Code Article 8.28) that are in effect at the time of submittal. No grading, clearing, or tree disturbance shall occur until the Improvement Plans are approved by the third-party plan-check firm.

All cut/fill slopes shall be at a maximum of 2:1 (horizontal: vertical) unless a soils report supports a steeper slope.

NCSD shall revegetate all disturbed areas. Revegetation, undertaken from April 1 to October 1, shall include regular watering to ensure adequate growth. A winterization plan shall be provided with project Improvement Plans. NCSD shall ensure proper installation and maintenance of erosion control/winterization before, during, and after project construction. Soil stockpiling or borrow areas shall have proper erosion control measures applied for the duration of the construction as specified in the Improvement Plans. The Improvement plans shall also provide for erosion control where roadside drainage is off of the pavement.

If, at any time during construction, a field review by County personnel indicates a significant deviation from the proposed grading shown on the Improvement Plans, specifically with regard to slope heights, slope ratios, erosion control, winterization, tree disturbance, and/or pad elevations and configurations, the plans shall be reviewed by the Placer County Engineering and Surveying Division for a determination of substantial conformance to the project approvals prior to any further work proceeding. Failure of the Placer County Engineering and Surveying Division to make a determination of substantial conformance may serve as

grounds for the revocation/modification of the project approval by the appropriate hearing body.

MM-GEO-3 Final Geotechnical Investigation Report. The Improvement Plan submittal shall include a final geotechnical engineering report produced by a California Registered Civil Engineer or Geotechnical Engineer. The report shall address and make recommendations on the following:

A. Road, pavement, and parking area design;

B. Structural foundations, including retaining wall design (if applicable);

C. Grading practices;

D. Erosion/winterization;

E. Special problems discovered on-site, (i.e., groundwater, expansive/unstable soils, etc.); and

F. Slope stability.

Once approved by the third-party plan-check firm, two copies of the final report shall be provided to the Placer County Engineering and Surveying Division and one copy to the Placer County Building Services Division for its use. NCSD shall provide for engineering inspection and certification that earthwork has been performed in conformity with recommendations contained in the report.

MM-GEO-4 Unanticipated Paleontological Resources. In the event that fossils or fossil bearing deposits are discovered during ground-disturbing activities, excavations within a 50-foot radius of the find shall be temporarily halted or diverted. Ground disturbance work shall cease until a qualified paleontologist determines whether the resource requires further study. The paleontologist shall document the discovery as needed (in accordance with Society of Vertebrate Paleontology standards [Society of Vertebrate Paleontology 1995]), evaluate the potential resource, and assess the significance of the find under the criteria set forth in CEQA Guidelines Section 15064.5. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction activities are allowed to resume at the location of the find. If avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of construction activities on the discovery. All construction activity shall adhere to the recommendations in the excavation plan.

3.8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS – Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Setting

GHGs are gases that absorb infrared radiation in the atmosphere. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature. Global climate change concerns are focused on whether human activities are leading to an enhancement of the greenhouse effect. Principal GHGs include CO_2, methane (CH_4), nitrous oxide (N_2O), O_3, and water vapor. If the atmospheric concentrations of GHGs rise, the average temperature of the lower atmosphere will gradually increase. Globally, climate change has the potential to impact numerous environmental resources though uncertain impacts related to future air temperatures and precipitation patterns. Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. Climate change is already affecting California: average temperatures have increased, leading to more extreme hot days and fewer cold nights; shifts in the water cycle have been observed, with less winter precipitation falling as snow, and both snowmelt and rainwater running off earlier in the year; sea levels have risen; and wildland fires are becoming more frequent and intense due to dry seasons that start earlier and end later (Climate Action Team [CAT] 2010).

The effect each GHG has on climate change is measured as a combination of the mass of its emissions and the potential of a gas or aerosol to trap heat in the atmosphere, known as its global warming potential (GWP), which varies among GHGs. Total GHG emissions are expressed as a function of how much warming would be caused by the same mass of CO_2. Thus, GHG emissions are typically measured in terms of pounds or tons of CO_2 equivalent (CO_2e). The CO_2e for a gas is derived by multiplying the mass of the gas by the associated GWP, such that MT of CO_2e = (MT of a GHG) × (GWP of the GHG). CalEEMod uses data from the Intergovernmental Panel on Climate Change's (IPCC's) Fourth Assessment Report (IPCC 2007) to support the assumption that the GWP for CH_4 is 25, which means that emissions of one MT of CH_4 are equivalent to emissions of 25 MT of CO_2, and the GWP for N_2O is 298 .

Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. There are currently no established thresholds for assessing whether the GHG emissions of an individual project would be considered a cumulatively considerable contribution to global climate change; however, all reasonable efforts should be made to minimize a project's contribution to global climate change. In addition, while GHG

impacts are recognized exclusively as cumulative impacts (CAPCOA 2008), GHG emissions impacts must also be evaluated at a project level under CEQA.

The State CEQA Guidelines do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the State CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA (California Natural Resources Agency 2018). The State of California has not adopted emission-based thresholds for GHG emissions under CEQA. The Governor's Office of Planning and Research's Technical Advisory, titled "Discussion Draft CEQA and Climate Change Advisory," states that:

> "[N]either the CEQA statute nor the CEQA Guidelines prescribe thresholds of significance or particular methodologies for performing an impact analysis. This is left to lead agency judgment and discretion, based upon factual data and guidance from regulatory agencies and other sources where available and applicable. Even in the absence of clearly defined thresholds for GHG emissions, such emissions must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact. (Office of Planning and Research 2018)

Furthermore, the advisory document indicates that "in the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a 'significant impact,' individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice." Section 15064.7(c) of the CEQA Guidelines specifies that "when adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence."

To evaluate the impacts of projects on global climate change, the PCAPCD has established significance thresholds for GHG emissions (PCAPCD 2017). The PCAPCD established the following approach to determine if a project's GHG emissions would result in a significant impact:

- Tier 1 consists of comparing the project's GHG emissions to the de minimis level of 1,100 MT CO_2e per year. If a project does not exceed this threshold, it would have GHG emissions that are not cumulatively considerable.
- Tier 2 is a bright line threshold level of 10,000 MT CO_2e per year, applied to land use projects' construction phase and stationary projects' construction and operational phases. If a project exceeds this cap, the project would be deemed to have a cumulatively considerable contribution to global climate change. A land use project with GHG operational emissions between 1,100 MT CO_2e and 10,000 MT CO_2e per year can still be found less than cumulatively considerable when the results of the project's related efficiency analysis meets one of the efficiency thresholds below.
- Tier 3 compares the project emissions to efficiency thresholds. The efficiency matrix and de minimis level thresholds are only applied to a land use projects' operational phase. These thresholds are 4.5 MT CO_2e per capita for residential projects in an urban area and 5.5 MT CO_2e per capita for residential projects in a rural area. For nonresidential development, the thresholds are 26.5 MT CO_2e per 1,000 square feet for projects in urban areas and 27.3 MT CO_2e per 1,000

square feet for projects in rural areas. If a project does not exceed the applicable efficiency threshold, it would have GHG emissions that are not cumulatively considerable.

As the project primarily consists of stationary sources (i.e., boilers), the 10,000 MT CO_2e per year threshold has been applied to determine significance of the project's construction and operational GHG emissions.

Impact Discussion

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant Impact. Potential impacts associated with the project's generation of GHGs, either directly or indirectly, during short-term construction and long-term operations have been evaluated herein.

Construction

CalEEMod Version 2020.4.0 was used to estimate potential project-generated GHG emissions during construction. Construction of the project would result in GHG emissions primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. All details for construction criteria air pollutants discussed in Section 3.3 are also applicable for the estimation of construction-related GHG emissions. See Section 3.3 for a discussion of construction emissions calculation methodology and assumptions used in the GHG emissions analysis.

Emissions from construction of the Wood Energy Utility Facility and thermal distribution pipeline are combined for the purposes of this analysis and are presented below in Table 3.8-1.

Table 3.8-1. Estimated Annual Construction Greenhouse Gas Emissions

Year	CO_2	CH_4	N_2O	CO_2e
	Metric Tons			
2023	124.80	0.03	<0.01	126.38
			Total	**126.38**
			PCAPCD Threshold	*10,000*
			Threshold Exceeded?	**No**

Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent; PCAPCD = Placer County Air Pollution Control District.
Values of "<0.01" indicate that the estimated emissions are less than two decimals. Totals may not sum due to rounding.
Source: Appendix B

Construction GHG emissions are a one-time release and are typically considered separate from operational emissions, as global climate change is inherently a cumulative effect that occurs over a long period of time and is quantified on a yearly basis. As previously discussed, the PCAPCD identifies a GHG emission threshold for construction-related emissions of 10,000 MT CO_2e per year. As shown in Table 3.8-1, total construction GHG emissions would be approximately 126 MT CO_2e, which would not exceed the PCAPCD GHG threshold. Therefore, the project's construction-related GHG emissions would represent a less than significant impact.

Operations

Following the completion of construction activities, the project would generate GHG emissions primarily from the combustion of woody biomass in the boilers, as well as minimal emissions associated with mobile sources (truck traffic for wood chip deliveries and ash export), energy sources (electricity consumption), and area sources (landscaping equipment). Emissions associated with water, wastewater, and solid waste would be negligible for the project and were not included in the inventory. Emissions were also estimated for the existing baseline conditions, specifically for mobile sources (truck traffic for biomass transport), stationary sources (existing boilers at the Rio Bravo facility), and natural gas usage to be replaced by the thermal energy generated by the proposed project. The CalEEMod model was used to estimate emissions from all sources for the existing and project scenarios, except for the biomass boilers, which were quantified using emission factors from the manufacturer and/or from the EPA AP-42: Compilation of Air Emission Factors, Chapter 1.6 (Wood Residue Combustion in Boilers) (EPA 2003). Table 3.8-2 summarizes the net increase in daily emissions of GHGs that would be generated by the project.

Table 3.8-2. Estimated Annual Operational Greenhouse Gas Emissions

Emission Source	CO_2	CH_4	N_2O	CO_2e
	metric tons per year			
Project				
Area	<0.01	0.00	0.00	<0.01
Energy	163.95	0.01	<0.01	164.68
Mobile (Within PCAPCD Jurisdiction)	6.28	<0.01	<0.01	6.58
Stationary (NCSD Wood Energy System boilers)	4,487.54	0.00	0.00	4,487.54
Total	**4,657.77**	**0.01**	**0.00**	**4,658.80**
Existing				
Energy (Natural Gas)	2,680.34	0.05	0.05	2,696.27
Stationary (Rio Bravo biomass boilers)	4,487.54	0.00	0.00	4,487.54
Mobile (Within PCAPCD Jurisdiction)	1.87	<0.01	<0.01	1.96
Total	**7,169.75**	**0.05**	**0.05**	**7,185.77**
Net Change				
Net Change (Project - Existing)	**(2,511.98)**	**(0.04)**	**(0.05)**	**(2,526.97)**
			PCAPCD Threshold	*10,000*
			Threshold Exceeded?	**No**

Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; R=refrigerants; CO_2e = carbon dioxide equivalent; PCAPCD = Placer County Air Pollution Control District.
Values of "<0.01" indicate that the estimated emissions are less than two decimals. Totals may not sum due to rounding. Numbers in parentheses represent a negative number.
Source: Appendix B

As shown in Table 3.8-2, operation of the proposed project would create a net decrease in GHG emissions relative to existing conditions because the amount of woody biomass combusted within the PCAPCD jurisdiction would not increase (since wood chips that would be processed by the NCSD Wood Energy Utility Facility are assumed to currently be processed at the Rio Bravo facility) and the VMT associated with transport of the wood chips would be reduced. Thus, the project would result in a decrease in GHG emissions of approximately 2,526.97 MT CO_2e per year. As discussed in Section 3.3, in the cumulative condition, forest fuel management and defensible space activities in the region may increase such that the total volume of woody biomass combustion at the existing Rio Bravo facility would increase and the degree to which the air pollutant emission reduction shown in Table 3.8-2 would lessen. However, the Rio Bravo facility would continue to operate within the maximum limits established by PCAPCD permits, and the NCSD Wood Energy System would not be permitted to burn more than 3,800 BDT of wood annually (consistent with the CalEEMod modeling assumptions). As shown in Table 3.8-2, the GHG emissions of the proposed NCSD Wood Energy System (without accounting for reductions from curtailment of any existing operations) would remain below the PCAPCD threshold. Specifically, project-generated emissions would be 4,658.80 MT CO_2e per year, which is below PCAPCD's GHG threshold of 10,000 MT CO_2e per year. Therefore, the project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, and this would represent a less than significant cumulative GHG impact.

Notably, the existing mobile source emissions shown in Table 3.8-2 are based on the assumption that all of the woody biomass that NCSD would receive is currently being transported to Full Circle Compost in Nevada and reflects only the mobile source emissions within the PCAPCD jurisdiction, in order to compare to the PCAPCD thresholds of significance. However, the project would result in substantially reduced trip distances for the woody biomass haul trucks since some of the material processed at the proposed Wood Energy Utility Facility would be diverted from the woody biomass stream currently being transported to Rio Bravo-Rocklin, Honey Lake Power in Lassen County, Full Circle Compost in Nevada, and Lockwood Landfill in Nevada. For the purposes of this analysis, this shorter travel distance was assumed to ensure a conservative analysis. However, based on information provided by TTSD, given current market conditions it is reasonable to expect that the wood chips that NCSD would receive would otherwise have been transported to Rio Bravo for use in that existing biomass plant. Thus, the existing stationary source emissions shown in Table 3.8-2 reflects the GHG emissions generated at Rio Bravo to combust the volume of wood chips that the proposed project would process. For disclosure and to present the overall change in potential mobile emissions, Table 3.8-3 presents the total maximum daily mobile source emissions for informational purposes only.

Table 3.8-3. Total Annual Operational Mobile Source Greenhouse Gas Emissions

Emission Source	CO_2	CH_4	N_2O	CO_2e
	metric tons per year			
Project				
Mobile (Total)	8.32	<0.01	<0.01	8.71
Total	**8.32**	**<0.01**	**<0.01**	**8.71**

Table 3.8-3. Total Annual Operational Mobile Source Greenhouse Gas Emissions

Emission Source	CO_2	CH_4	N_2O	CO_2e
	metric tons per year			
Existing				
Mobile (Total)	35.35	<0.01	0.01	37.01
Total	**35.35**	**<0.01**	**0.01**	**37.01**
Net Change				
Net Change (Project - Existing)	**(27.03)**	**0.00**	**(0.01)**	**(28.30)**

Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent; PCAPCD = Placer County Air Pollution Control District.
Values of "<0.01" indicate that the estimated emissions are less than two decimals. Totals may not sum due to rounding. Numbers in parentheses represent a negative number.
Source: Appendix B

b) Would the project generate conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than Significant Impact. Placer County adopted the Placer County Sustainability Plan (PCSP) in 2020 to identify programs and policies that will be undertaken to achieve significant GHG emission reductions throughout the unincorporated areas of the county. The PCSP also notes that implementation of the strategies and programs included in the plan "will help achieve multiple community-wide goals, such as lowering energy costs, reducing air and water pollution, supporting local economic development, and improving public health and quality of life" (Placer County 2020). However, the County did not prepare an Environmental Impact Report at the time the Sustainability Plan was adopted and thus this Initial Study cannot rely upon consistency with the Sustainability Plan to demonstrate that the proposed NCSD Wood Energy System project would have a less-than-significant impact. Project consistency with the PCSP has been included below for informational purposes only. In addition, consistency with other plans including the Placer County RTP and SACOG MTP/SCS, state GHG reduction targets, and Scoping Plan are described below.

Placer County Sustainability Plan

The PCSP presents recommended GHG emission reduction measures for new development that is subject to environmental review, as well as strategies to incentivize energy efficiency and water efficiency upgrades in existing buildings. Specifically, the PCSP contains 67 strategies to reduce community-wide emissions in the following six categories: energy, water and wastewater, transportation, solid waste, agriculture and forestry, and off-road equipment. Because the proposed project would not construct any new residential or commercial land uses and would not increase residential population or employment (and therefore would not increase water demand or generation of wastewater or solid waste), many of the PCSP strategies are not applicable to this project. Other strategies are generally targeted at new residential and commercial development, and provision of electric vehicle charging infrastructure. The proposed project would not construct new residential or commercial development and would not require new daily passenger vehicle trips, thus these measures are not applicable to the project. The following discussion focuses on

the PCSP energy strategies that are related to the proposed project and demonstrates that the project would be consistent with and would support implementation of the PCSP.

In Strategy E-2, the PCSP identifies that meaningful GHG reductions could be realized by reducing reliance on natural gas for energy supply. The PCSP notes that "while electricity has gotten cleaner due to increased supplies of renewable energy, this is not the case with natural gas, which remains substantially more GHG intensive" (Placer County 2020). The PCSP discusses this in the context of ensuring reliable electric infrastructure is available throughout the county; encouraging conversion to "all electric" buildings, such as through replacement of natural gas appliances with electric ones; and consideration of having new development be all electric. The PCSP notes that between 2005 and 2015, GHG emissions associated with consumption of energy in residential and nonresidential buildings declined "due to cleaner sources of electricity and lower levels of natural gas" but is expected to increase as population and employment growth continues through 2050 (Placer County 2020).

While the proposed project would not replace natural gas usage with electricity, it would reduce natural gas consumption by approximately 50,000 MMBtu per year. Thus it would contribute to attainment of the County's goal of reducing natural gas consumption and associated GHG emissions.

In Strategy E-4, the PCSP recommends that new development that would exceed applicable CEQA GHG thresholds should implement CalGreen Tier 1 standards, which are voluntary standards within the California Building Standards Code (California Code of Regulations, Title 24), that provide for greater energy efficiency than the mandatory standards. The proposed Wood Energy Utility Facility would be constructed in compliance with the California Building Standards Code. As presented in response 3.8(a), the project would not exceed the applicable GHG thresholds, thus implementation of the voluntary CalGreen Tier 1 standards is not necessary to maintain consistency with the PCSP.

Metropolitan Transportation Plan/ Sustainable Communities Strategy

The Placer County RTP is incorporated into SACOG's MTP/SCS, which plans for transportation projects across the six-county Sacramento Region (including Placer County), as well as estimates future land use development and housing types, addresses environmental sustainability, and considers equity in transportation planning. PCTPA and SACOG work closely together to ensure the two plans align. As described in the Placer County RTP, a balanced transportation system helps the Sacramento Region comply with the state's Senate Bill (SB) 375 GHG reduction requirements, which is necessary to maintain transportation funding. Reducing the amount of vehicle miles traveled is the primary strategy to reduce GHG emissions (PCTPA 2019). The project would be consistent with these transportation plans since it would reduce VMT as compared to the existing baseline conditions by hauling the woody biomass obtained from TTSD to the proposed wood energy boilers rather than transport to Rio Bravo-Rocklin, Honey Lake Power in Lassen County, disposal at Full Circle Compost in Nevada, and/or transport to Lockwood Landfill in Nevada.

Project Consistency with State Reduction Targets and Scoping Plan

The California State Legislature passed the Global Warming Solutions Act of 2006 (AB 32) to provide initial direction to limit California's GHG emissions to 1990 levels by 2020 and initiate the state's long-range climate objectives. Since the passage of AB 32, the State has adopted GHG emissions reduction targets for future years beyond the initial 2020 horizon year. For the project, the relevant GHG emissions reduction targets include those established by SB 32 and AB 1279, which require GHG emissions be reduced to 40% below 1990 levels by 2030, and 85% below 1990 levels by 2045, respectively. In addition, AB 1279 requires the state achieve net zero GHG emissions by no later than 2045 and achieve and maintain net negative GHG emissions thereafter.

As defined by AB 32, CARB is required to develop The Scoping Plan, which provides the framework for actions to achieve the State's GHG emission targets. The Scoping Plan is required to be updated every five years and requires CARB and other state agencies to adopt regulations and initiatives that will reduce GHG emissions statewide. The first Scoping Plan was adopted in 2008, and was updated in 2014, 2017, and most recently in 2022. While the Scoping Plan is not directly applicable to specific projects, nor is it intended to be used for project-level evaluations,[8] it is the official framework for the measures and regulations that will be implemented to reduce California's GHG emissions in alignment with the adopted targets. Therefore, a project would be found to not conflict with the statutes if it would meet the Scoping Plan policies and would not impede attainment of the goals therein.

CARB's 2017 Scoping Plan update was the first to address the state's strategy for achieving the 2030 GHG reduction target set forth in SB 32 (CARB 2017), and the 2022 Scoping Plan for Achieving Carbon Neutrality (Third Update) outlines the state's plan to reduce emissions and achieve carbon neutrality by 2045 in alignment with AB 1279 and assesses progress its making toward the 2030 SB 32 target (CARB 2022e). As such, given that SB 32 and AB 1279 are the relevant GHG emission targets, the 2017 Scoping Plan and Third Update that outline the strategy to achieve those targets, are the most applicable to the project.

The 2017 *Climate Change Scoping Plan Update* (Second Update) included measures to promote renewable energy and energy efficiency (including the mandates of SB 350), increase stringency of the Low Carbon Fuel Standard, measures identified in the Mobile Source and Freight Strategies, measures identified in the proposed Short-Lived Climate Pollutant Plan, and increase stringency of SB 375 targets. The Third Update builds upon and accelerates programs currently in place, including moving to zero-emission transportation; phasing out use of fossil gas use for heating homes and buildings; reducing chemical and refrigerants with high GWP; providing communities with sustainable options for walking, biking, and public transit; and displacement of fossil-fuel fired electrical generation through use of renewable energy alternatives (e.g., solar arrays and wind turbines) (CARB 2022e). Many of the measures and programs included in the Scoping Plan would result in the reduction of project-related GHG emissions with no action required at the project-level. The project would support the Second and Third Update's goals by reducing VMT, as well as

[8] The Final Statement of Reasons for the amendments to the CEQA Guidelines reiterates the statement in the Initial Statement of Reasons that "[t]he Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (California Natural Resources Agency 2009).

incorporating solar panels and offsetting existing natural gas demand in the community. The project would also benefit from the gradual increase in energy efficiency and reduction in GHG emissions due to the shift from fossil fuels that will be achieved through the statewide programs and measures.

The 2045 carbon neutrality goal required CARB to expand proposed actions in the Third Update to include those that capture and store carbon in addition to those that reduce only anthropogenic sources of GHG emissions. However, the Third Update emphasizes that reliance on carbon sequestration in the state's natural and working lands will not be sufficient to address residual GHG emissions, and achieving carbon neutrality will require research, development, and deployment of additional methods to capture atmospheric GHG emissions (e.g., mechanical direct air capture). Given that the specific path to neutrality will require development of technologies and programs that are not currently known or available, the project's role in supporting the statewide goal would be speculative and cannot be wholly identified at this time.

Overall, the project would comply will all regulations adopted in furtherance of the Scoping Plan to the extent applicable and required by law. As mentioned above, several Scoping Plan measures would result in reductions of project-related GHG emissions with no action required at the project-level, including those related to energy efficiency, reduced fossil fuel use, and renewable energy production. As demonstrated above, the project would not conflict with CARB's Scoping Plan, including the Third Update and with the state's ability to achieve the 2030 and 2045 GHG reduction and carbon neutrality goals. Further, the project's consistency with the applicable measures and programs would assist in meeting the Town's contribution to GHG emission reduction targets in California.

Based on the preceding considerations, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. This impact would be less than significant.

Mitigation Measures

No mitigation measures are required.

3.9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

Setting

The project site includes the rear portion of the single parcel that is addressed as 910 and 908 Northstar Drive. The front portion of this property is currently developed with the Northstar Fire Station (910 Northstar Drive) while the rear portion is vacant. As discussed previously, this portion of the property supported a two-story building between 1971 and 2022. The building originally housed fire department equipment bays and barracks, later was used for the NCSD administrative offices, and was most recently used as an outdoor oriented charter school/daycare center. The project site also includes a pipeline connection between 908 Northstar Drive and 900 Northstar Drive, as well as along Northstar Drive between the proposed Wood Energy Utility Facility site and the NPOA Recreation Center. According to the California Department of Toxic Substances Control (DTSC) EnviroStor database and the State Water Resources Control Board (SWRCB)

GeoTracker database, the project site is not located within or in proximity to a hazardous materials site (DTSC 2022; SWRCB 2022).

The project site is approximately 2.4 miles south of the Truckee Tahoe Airport and is located within the Height Review Overlay Zone and Compatibility Zone E (Tahoe Truckee Airport Land Use Commission [TTALUC] 2016). The nearest school to the project site is the Tahoe Expeditionary Academy, a private high school located on Schaffer Mill Road approximately 4 miles north of the site.

The Northstar Fire Department provides emergency response to the project site. The Northstar California community is located within a heavily forested area and is considered a wildland urban interface area. According the CalFire Fire Hazard Severity Zone (FHSZ) Viewer, the project site is located within a very high FHSZ within a State Responsibility Area (CalFire 2022). The Northstar Fire Department has adopted a Community Wildfire Protection Plan (CWPP) that provides guidance for managing forest fuels, maintaining defensible space around structures, recommendations for ignition resistant building construction, and NCSD Ordinances 35-19 and 36-19, under which the NCSD Board adopted wildland fire prevention and defensible space requires and the 2019 California Fire Code along with local amendments. Fuel management treatment was conducted on all land surrounding the proposed Wood Energy Utility Facility site between 2018 and 2020 (Northstar Fire Department 2021).

Impact Discussion

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less-than-Significant Impact. Project construction would involve the use of common hazardous materials used in construction, including petroleum-based fuels, hydraulic fluids, and lubricants used in vehicles and equipment. Construction would not require storage of large quantities of these construction-related hazardous materials, and such storage and use would occur in compliance with state and county requirements for storage, spill prevention and response and reporting procedures. All construction waste materials would be disposed of in compliance with state and federal hazardous waste requirements and at appropriate facilities.

During operation of the project, the Wood Energy Utility Facility would require storage of common materials such as paints, cleaning solvents, bonding agents, and small quantity petroleum fuels and lubricant for plant maintenance. In addition, treated water would be heated at the Wood Energy Utility Facility and conveyed to the connected facilities via the thermal energy distribution pipeline. The facility would use 55-gallon drum of 25 percent aqueous sodium hydroxide (NaOH) for water treatment. It would also use cationic resin for water softening and iron removal, such as Purolite C100 Sodium Cycle. The facility would store up to two 1 cubic foot bags weighing approximately 53 pound each. Other than these commonly used cleaning and maintenance materials, operation of the project would not include the transportation or disposal of hazardous materials. Woody biomass materials would be transported from the TTSD MRF to the Wood Energy Utility Facility and ash would be transported from the Wood Energy Utility Facility to the MRF and/or farms in the Sierra Valley. Because the project would require storage, use, and transport of relatively small quantities of hazardous materials commonly used in construction, cleaning, and equipment maintenance, this impact would remain less than significant and construction and operation of the

proposed project would not be detrimental to the health, safety, and general welfare of people residing or working in the vicinity in relation to transport, use and disposal of hazardous materials. No mitigation measures are required.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less-than-Significant Impact. Construction of the project would involve temporary use of hazardous materials, as discussed above. Storage, handling, and use of these materials would occur in accordance with standard construction BMPs to minimize the potential for spill or release and ensure that any such spill or release would be controlled on site. All hazardous materials would be used and handled in accordance with the requirements for storage, spill prevention and response and reporting procedures.

As discussed in Section 3.3, Air Quality, response 3.3(c), HRAs were prepared to evaluate potential health effects to people within the project area during construction and operation of the proposed project. Each HRA concluded that the estimated risk levels for individuals within the project vicinity would not exceed the respective PCAPCD risk thresholds, and therefore, project construction and project operations would result less-than-significant health risk impacts.

Because the project would not create a substantial risk of release of hazardous materials and the emissions from the proposed Wood Energy Utility Facility would not result in adverse health conditions for nearby residents, operation of the proposed project would not be detrimental to the health, safety, and general welfare of people residing or working in the vicinity and would not be detrimental or injurious to property or improvements in the neighborhood or to the general welfare of the county. Therefore, this impact would be less than significant, and no mitigation measures are required.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. The project site is not within 0.25 miles of a school. Therefore, the project would have no impact and no mitigation measures are required.

d) Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. As noted in the Setting section above, a search of the State Geotracker and EnviroStor databases determined that no active hazardous materials cleanup sites are located in proximity to the project site (DTSC 2022; SWRCB 2022). No impact would occur. Construction and operation of the proposed project would not be detrimental to the health, safety, and general welfare of people residing or working in the vicinity in relation to potential release of hazardous materials, and no mitigation measures are required.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

Less-than-Significant Impact. The project warrants review by the TTALUC under the Truckee-Tahoe Airport Land Use Compatibility Plan Section 1.4.3(a)(10) because it proposes a structure greater than 35 feet in height within the Height Review Overlay Zone. It may also require dedication of an avigation easement, which would allow the TTALUC to define maximum building and vegetation heights for the property. The project site is not within any of the approach or departure surfaces for the airport.

Although there are no maximum density and intensity limitations within Compatibility Zone E, it is noted that the proposed Wood Energy Utility Facility would not require constant human occupation. Rather it is expected to require approximately 10 labor hours per week, which would be met with NCSD's existing Operations Department staff. The project would not introduce any new residential or employment-generating land uses to the project area, would not increase attraction of birds to the project site, and would not have any influence on flight patterns thus there would be no changes in aircraft noise exposure for existing residences in the project area.

Section 1.3.1 of the TTALUC states that the principal compatibility concern related to airspace protection is any "land use characteristics that may create a hazard to aircraft in flight. These characteristics may be physical (e.g., tall objects, bird attractants), visual (e.g., smoke, glare, distracting lights), or electronic (e.g. interfering with aircraft navigation or communication)." The proposed project does not include any electronic components that could interfere with aircraft navigation or communication. The following discussion evaluates the project's physical and visual elements in relation to aviation safety.

The height of the proposed Wood Energy Utility Facility, including the steam stacks, would not exceed the height of the trees within the project site and surrounding area. Specifically, as shown in Figure 12, the highest roofline would be 40.40 feet above the average grade and the steam stacks would have a height of 42.82 feet above the average grade, while many trees in the area are greater than 60 feet in height. Additionally, the project site is at an elevation of 6,220 feet AMSL while the residential condominiums along Gold Bend Drive are at an elevation of approximately 6,349 feet AMSL (topographic-map.com 2023). Thus, the Wood Energy Utility Facility steam stacks would be approximately 86 feet lower than the nearest existing residences that are also within the Height Review Overlay Zone.

As discussed in Section 3.1 Aesthetics, the project would not create light and glare in the project area. Lighting would be limited to building security and safety and all lights would be directed downward. The roof of the Wood Energy Utility Facility would be metal painted slate grey; this would reduce the potential for glare. Photovoltaic panels would be mounted on an east-facing portion of the Wood Energy Utility Facility roof, as shown in Figures 12 and 14. While photovoltaic panels can cause some glare, the direction of the glare is dependent on the angle at which sunlight hits the panels and the relative location of the person viewing the panels. Glare is much more likely to occur when the light source is at a low angle, such as in early morning conditions. However, the existing trees east of the proposed Wood Energy Utility Facility would provide some shielding of sunlight in

early morning conditions. Further, photovoltaic panels are designed to minimize reflection because any light that is reflected from their surface cannot be converted into energy. Typical photovoltaic panels reflect about 2 to 3 percent of the incoming light, which is similar to the reflectivity of smooth water, and thus is not considered to cause hazards to air navigation. Use of photovoltaic panels near airports is common throughout the US and the world. The Massachusetts Department of Energy Resources (MDER), Massachusetts Department of Environmental Protection, and Massachusetts Clean Energy Center found that "United Kingdom and U.S. aircraft accident databases contain no cases of accidents in which glare caused by a solar energy facility was cited as a factor" (MDER et al 2015). The limited number and size of photovoltaic panels proposed for the Wood Energy Utility Facility as well as the visual shielding provided by the extent of tree canopy in the project vicinity would ensure that the project does not create substantial glare that could interfere with aviation activities.

During operation of the Wood Energy Utility Facility, air emissions from the plant would appear as visible steam when the ambient air temperatures are low. As noted above, the project site is not within any of the approach or departure surfaces for the airport and thus steam plumes would not interfere with aircraft approach and departure movements. Based on the HRA modeling discussed in response 3.3(c), it is expected that steam plumes would generally trend to the north, into the forested area between Gold Bend and Wolf Tree streets. As the steam plume interacts with the forest vegetation, some water mist particles would be deposited on the vegetation surfaces. With steam emissions originating at the 42.82 foot height of the steam stacks, and given the increasing ground elevation to the north, much of the plume would remain at similar heights as the existing vegetation and would not interfere with aircraft operations.

The project's impact related to aviation safety would be less than significant because none of the project components would exceed the ALUC height limits and the project would not create aviation hazards due to lighting, glare, or visible plant emissions. Operation of the proposed project would not be detrimental to the health, safety, and general welfare of people residing or working in the vicinity as related to hazards associated with airport operations. No mitigation measures are required.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less-than-Significant Impact. The project would not require modifications to existing roadways that could impede emergency response or evacuation activities. During project construction, the project would require the temporary partial closure of Northstar Drive during trenching and installation of the proposed pipeline alignment along Northstar Drive between 908 Northstar Drive and the NPOA Recreation Center. Any such closure would be coordinated with the Northstar Fire Department to ensure that traffic control plans include provisions for adequate access to all parts of the Northstar California community. Notification would also be provided to the Placer County Sheriff's Office. Upon completion of construction, Northstar Drive would be restored to its existing condition. As such, construction and operation of the proposed project would not be detrimental to the health, safety, and general welfare of people residing or working in the vicinity in relation to interference with adopted emergency response or emergency evacuation. The project would have a less-than-significant impact, and no mitigation measures are required.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less-than-Significant Impact. As noted in the Setting section above, all areas adjacent to the Wood Energy Utility Facility location have been subject to fuel management treatment in recent years (Northstar Fire Department 2021). The project would entail construction activities that could result in an increase in the potential for accidental wildfires. However, project construction would be conducted in accordance with local and state regulations governing fire prevention and safety as well as the Northstar CWPP recommendations for ignition resistant buildings. The Wood Energy Utility Facility would also include an interior fire suppression system to minimize the chance that an operational malfunction could cause the structure to become fully engulfed in fire and for fire to spread to adjacent and nearby vegetation. Construction and operation of the proposed project would not be detrimental to the health, safety, and general welfare of people residing or working in the vicinity in relation to exposing people or structures to risks involving wildland fires. The project impact would be less than significant; and no mitigation measures are required.

Mitigation Measures

No mitigation measures are required.

3.10 Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☒	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

Setting

The project would construct a wood energy system located within the Northstar California community. The majority of the project site primarily consists of previously developed land with impervious surfaces. As shown in Figure 1, Project Location, Martis Creek is adjacent to the eastern side of the project site. As shown in Figure 15, Drainage Plan, stormwater runoff from the 908 Northstar Drive portion of the project site flows to existing stormwater inlets and is conveyed under the driveway that provides access to 908 Northstar Drive and 900 Northstar Drive and into the stormwater detention basin located east of the site (see Figure 11A, Detention Basin photo). Water quality in the project area is regulated by the California Regional Water Quality Control Board (RWQCB) – Lahontan Region. The Lahontan Region Basin Plan outlines water quality standards for the surface and ground waters within the region (RWQCB 2021).

The northernmost portions of the Northstar California community are located within the Martis Valley Groundwater Basin, which consists of 57 square miles that also includes the Town of Truckee and portions of unincorporated Placer County areas. The project site is not within the groundwater basin (PCWA 2013), but potable water service in the Northstar California community is provided by NCSD, which obtains water from two groundwater wells and surface water from a mid-mountain spring. Water is stored in tanks, treated onsite and delivered throughout the community.

Major surface waters in the region include the Truckee River, Prosser Creek, Alder Creek, and Martis Creek. NCSD partnered with the Placer County Water Agency (PCWA) and Truckee Donner Public Utility District Water to develop the Martis Valley Groundwater Management Plan (PCWA 2013). This was intended to support the partner agencies in aligning policy and implementing effective and sustainable groundwater

management programs to meet the identified goal of ensuring long term quality and availability of groundwater in the Martis Valley Groundwater Basin.

Impact Discussion

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less than Significant with Mitigation Incorporated. Construction of the project would involve ground-disturbing activities for grading that could result in sediment discharge in stormwater runoff. Additionally, as discussed in Section 3.9, Hazards and Hazardous Materials, construction would involve the use of oil, lubricants, and other chemicals that could be discharged from leaks or accidental spills. These potential sediment and chemical discharges during construction would have the potential to impact water quality in receiving water bodies.

The total area of disturbance for project construction is approximately 28,205 square feet. This includes approximately 16,865 square feet of disturbance area at the 908 Northstar Drive site and approximately 11,340 square feet for installation of the thermal energy distribution pipeline, which would require a 30-inch-wide trench with a length of approximately 2,835 linear feet. Thus, the project would not require preparation and implementation of a Storm Water Pollution Prevention Plan. However, consistent with County Code, the project does require preparation of a Stormwater Quality Management Plan to document the BMPs that would be implemented to avoid adverse effects to water quality during project construction and throughout project operation.

As discussed in Section 3.7, Geology and Soils, response 3.7(b), Placer County Code Section 15.48.630 identifies requirements to control erosion and sedimentation during grading through the use of BMPs. The proposed site plans include a Demolition and Temporary BMP plan (Appendix A, Improvement Plans, Sheet C2.0) and a Temporary Erosion Control Plan (Appendix A, NCSD Biomass Transmission Plans, Sheet CT1.0) which identify the construction BMPs proposed to be implemented to ensure that soil erosion is minimized. These include placement of soil and tree protection fencing, silt fencing, gravel bag check dams, and temporary stormwater inlet protection. Mitigation Measures GEO-1, GEO-2, and GEO-3 identify required content of the Improvement Plans and final Geotechnical Investigation report to ensure compliance with the Placer County Code. Such compliance would ensure that the project does not result in adverse effects to water quality due to soil erosion and sedimentation.

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

No Impact. The project would not rely on any groundwater sources and would not develop or use a groundwater supply well. The project is not located in an area where soils are conducive to groundwater recharge. Therefore, the project would not contribute to the depletion of groundwater supplies through use of groundwater or reduction of groundwater recharge. The project would have no impact associated with the potential to impede sustainable groundwater management. No mitigation measures are required.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial erosion or siltation on- or off-site?

Less than Significant with Mitigation Incorporated. As discussed in response 3.7(b), the project site consists of disturbed land, some of which already supports impervious surfaces and ornamental landscaping. The 908 Northstar Drive property supported a building between 1971 and 2022, which had a similar footprint as the proposed Wood Energy Utility Facility building. The thermal energy distribution pipeline would be installed within a trench generally located beneath the pavement of Northstar Drive and in some cases located adjacent to the existing pavement. As shown in Figure 2, there is very little soil and vegetation present adjacent to Northstar Drive.

Construction of the project would include grading and excavation at the 908 Northstar Drive property and trenching along the thermal energy distribution pipeline alignment. There is a potential for soil erosion to occur during the trenching, excavation, and grading necessary to accomplish project construction. Placer County Code Section 15.48.630 identifies requirements to control erosion and sedimentation during grading through the use of BMPs. The proposed site plans include a Demolition and Temporary BMP plan (Appendix A, Improvement Plans, Sheet C2.0) which identifies the construction BMPs proposed to be implemented to ensure that soil erosion is minimized. These include placement of soil and tree protection fencing, silt fencing, gravel bag check dams, and temporary stormwater inlet protection. Mitigation Measures GEO-1, GEO-2, and GEO-3 identify required content of the Improvement Plans and final Geotechnical Investigation report to ensure compliance with the Placer County Code. Such compliance would ensure that the project does not result in substantial soil erosion and would reduce this impact to a less-than-significant level.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

Less than Significant with Mitigation Incorporated. As discussed in response 3.7(b), the project site consists of disturbed land, some of which already supports impervious surfaces. The 908 Northstar Drive property supported a building between 1971 and 2022, which had a similar footprint as the proposed Wood Energy Utility Facility building. The thermal energy distribution pipeline would be installed within a trench generally located beneath the pavement of Northstar Drive and in some cases located below-grade adjacent to the existing pavement. As shown in Figure 2, there is very little soil and vegetation present along Northstar Drive.

The proposed Wood Energy Utility Facility site currently contains 10,857 square feet of impervious surfaces associated with parking, the foundation for the building that previously existed at the site, and other site improvements such as walkways and driveways. The site also supports 1,049 square feet of pervious concrete. The proposed improvements at the Wood Energy Utility Facility site would result in a total of 10,605 square feet of impervious surface, which is a reduction of 252 square feet compared to the existing condition. Thus, the project would not result in an increase in the volume of rate of stormwater runoff from the project site. Thus, the project is not expected to

increase peak runoff for the 10 and 100 year events compared to the pre-development flows. Mitigation Measure HYD-1 requires that a Stormwater Quality Management Plan be prepared to identify specific measures that would ensure stormwater runoff is managed to prevent an increase in peak runoff and that stormwater management measures are designed in compliance with the Placer County Stormwater Management Manual. With implementation of Mitigation Measure HYD-1, this impact would remain less than significant.

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less than Significant with Mitigation Incorporated. As reflected in Figure 13, the proposed grading would not substantially alter the site topography, thus the project would not change the route of stormwater runoff. Further, Figures 13 and 15 and the detailed site plans in Appendix A indicate that a rock-lined channel would be created between the upper tarmac and the boiler room to receive runoff from these portions of the site, a retention basin would be created on the southeast side of the boiler room and control room, and the existing retention basin north of the lower tarmac would be expanded to ensure sufficient capacity for the stormwater runoff. The rock lined channel and retention basins would provide for filtration of potential water pollutants and attenuate peak stormwater flows. Runoff leaving each of the retention basins would be routed through existing 18-inch stormwater lines that convey drainage under the driveway that provides access to 900 Northstar Drive and the parking lot for 908 and 910 Northstar Drive. These lines outfall to another basin on the east side of the driveway, and drainage from that basin flows into the larger stormwater basin on this parcel. the detention basin east of the project site.

The prior school/daycare use at the proposed Wood Energy Utility Facility site involved the presence of vehicles and small amount of common household consumer products that could have contributed potential water pollutants to stormwater runoff. The proposed project would involve similar potential water pollutants, which would be managed through the use of BMPs as discussed above and reflected in Figure 15. Thus, the project would not provide additional sources of polluted runoff. Through the implementation of BMPs for minimizing contact with potential stormwater pollutants at the source and erosion control methods, as required under Mitigation Measures HYD-1, HYD-2, and HYD-3 this potentially significant impact would be reduced to less than significant levels.

iv) Impede or redirect flood flows?

No Impact. According to the FEMA Flood Hazard Map, the project site is not located within a flood zone (FEMA 2022) and is not located within a flood hazard, tsunami, or seiche zone, and is not expected to be inundated. Thus, the proposed structure and infrastructure would not have the potential to impede or redirect flood flows. The project would have no impact and no mitigation measures are required.

d) In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

No Impact. Seiche and tsunami are short duration earthquake-generated water waves in large, enclosed bodies of water and the open ocean, respectively. The project site is not located adjacent to any large bodies of water and is not located downstream of a dam. In addition, the project site is not located within a 100-year or 500-year flood hazard zone (FEMA 2022). Therefore, the project is not located within a flood hazard, tsunami, or seiche zone, and is not expected to be inundated. No impact would occur and no mitigation measures are required.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant Impact. The project would not rely on any groundwater sources and would not develop or use a groundwater supply well. The project is not located in an area where soils are conducive to groundwater recharge. Therefore, the project would not contribute to the depletion of groundwater supplies through use of groundwater or reduction of groundwater recharge. The project would have no impact associated with the potential to impede sustainable groundwater management. No mitigation measures are required.

Mitigation Measures

Implementation of Mitigation Measures GEO-1, GEO-2, and GEO-3 would address the project's potential impacts related to water quality and soil erosion. In addition, the following mitigation measures are required:

MM-HYD-1 Stormwater Quality Management Plan. As part of the Improvement Plan review process, a Stormwater Quality Management Plan shall be provided to the third-party plan-check firm required under Mitigation Measure GEO-1. The Stormwater Quality Management Plan shall be prepared by a Registered Civil Engineer and shall, at a minimum, include: A written text addressing existing conditions, the effects of the proposed improvements, all appropriate calculations, watershed maps, changes in flows and patterns, and proposed on-and off-site improvements and drainage easements to accommodate flows from this project. The plan shall identify water quality protection features and methods to be used during construction, as well as long-term post-construction water quality measures.

The Improvement Plans and Stormwater Quality Management Plan shall provide details showing that storm water run-off peak flows and volumes shall be reduced to pre-project conditions through the installation of retention facilities, which shall be designed in accordance with the requirements of the Placer County Stormwater Management Manual that are in effect at the time of submittal and shall be shown on the Improvement Plans.

Prior to any construction commencing, NCSD shall obtain a Waste Discharge Identification Number generated from the State Regional Water Quality Control

Board's Stormwater Multiple Application & Reports Tracking System. This serves as the Regional Water Quality Control Board approval or permit under the National Pollutant Discharge Elimination System construction storm water quality permit.

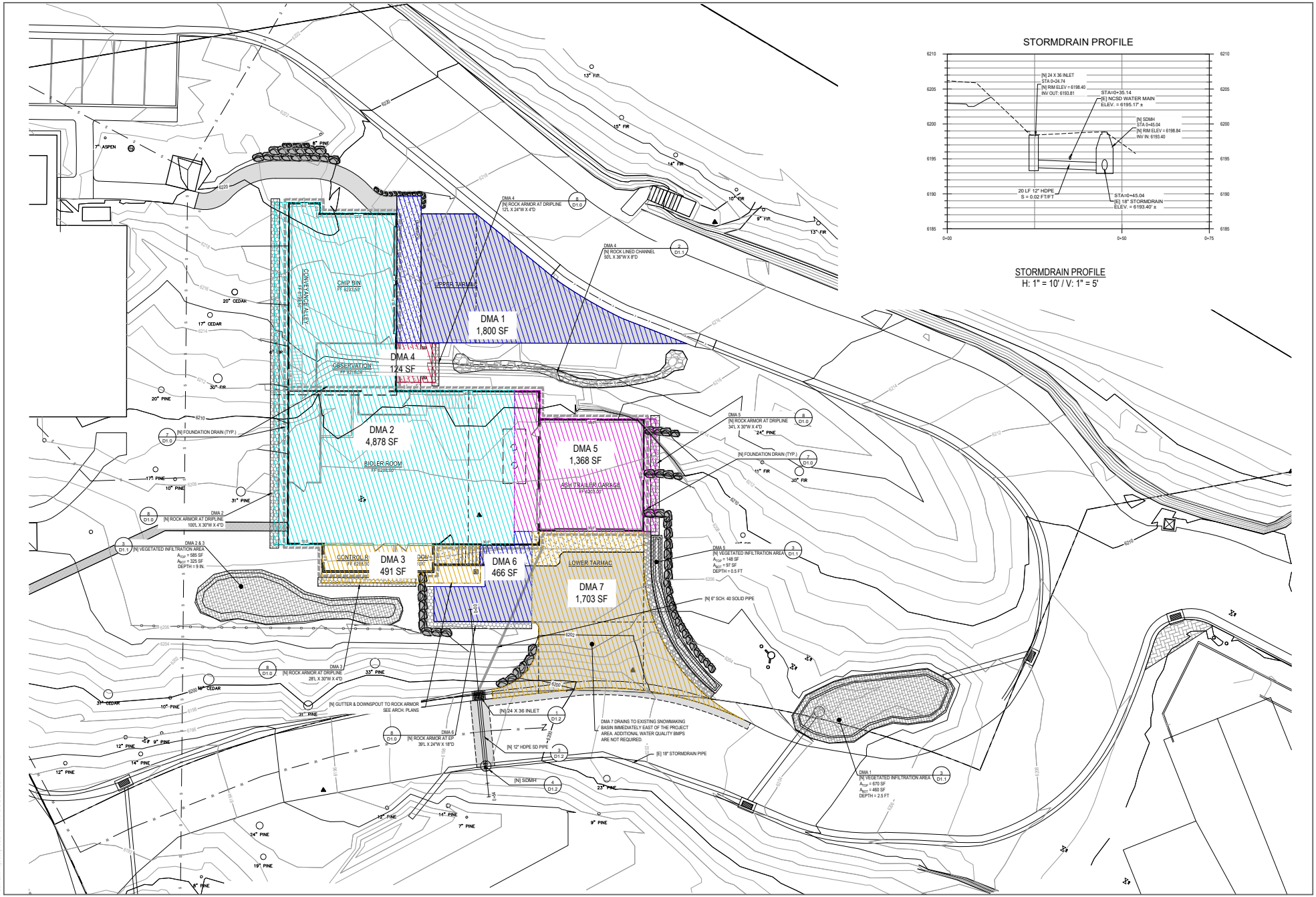
MM-HYD-2 Stormwater Quality Treatment Measures. The Improvement Plans shall show water quality treatment facilities/Best Management Practices (BMPs) designed according to the guidance of the California Stormwater Quality Association Stormwater Best Management Practice Handbooks for Construction, for New Development/Redevelopment, and for Industrial and Commercial (or other similar source as approved by the Engineering and Surveying Division).

Storm drainage from on-and off-site impervious surfaces (including roads) shall be collected and routed through specially designed catch basins, vegetated swales, vaults, infiltration basins, water quality basins, filters, etc. for entrapment of sediment, debris and oils/greases or other identified pollutants, as approved by the third-party plan-check firm. BMPs shall be designed in accordance with the East Placer Storm Water Quality Design Manual for sizing of permanent post-construction BMPs for stormwater quality protection.

All permanent BMPs shall be maintained as required to ensure effectiveness. NCSD shall provide for the establishment of vegetation, where specified, by means of proper irrigation. Proof of on-going maintenance, such as contractual evidence, shall be provided to the Placer County Engineering and Surveying Division upon request.

MM-HYD-3 Stormwater Discharge. This project is located within the permit area covered by Placer County's Small Municipal Separate Storm Sewer System (MS4) Permit (State Water Resources Control Board National Pollutant Discharge Elimination System (NPDES)). Project-related storm water discharges are subject to all applicable requirements of said permit.

The project shall implement permanent and operational source control measures as applicable. Source control measures shall be designed for pollutant generating activities or sources consistent with recommendations from the California Stormwater Quality Association (CASQA) Stormwater BMP Handbook for New Development and Redevelopment, or equivalent manual, and shall be shown on the Improvement Plans. The project is also required to implement Low Impact Development (LID) standards designed to reduce runoff, treat storm water, and provide baseline hydromodification management as outlined in the East Placer Storm Water Quality Design Manual.



Source: PR Design & Engineering Inc.

FIGURE 15

Drainage Plan

Northstar Community Services District Wood Energy System Initial Study

DUDEK

3.11 Land Use and Planning

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI.	**LAND USE AND PLANNING** – Would the project:				
a)	Physically divide an established community?	☐	☐	☐	☒
b)	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☒	☐	☐

Setting

The project site is located within the Northstar California community, which is located within Placer County and subject to the land use regulations of the County's Martis Valley Community Plan. The community consists of several residential condominium neighborhoods and a resort commercial area within Northstar Village. It currently includes approximately 840 single-family residences and 1,300 condominium and hotel units. The community is approximately 57 percent built-out, with potential for development of up to 529 additional single-family residences and up to 1,069 additional condominium and hotel units (NCSD 2020).

The proposed Wood Energy Utility Facility would be housed in a new building that would be constructed in the location of the previous building at 908 Northstar Drive. The Northstar Fire Department station is adjacent to this site, and the NCSD offices are north of this site.

Impact Discussion

a) Would the project physically divide an established community?

No Impact. The project would construct an approximately 6,000 square-foot Wood Energy Utility Facility building at 908 Northstar Drive. The project site previously supported a building of a similar size and the proposed building would be located in approximately the same footprint as the previous building. The Northstar Fire Department located at 910 Northstar Drive is located on the same parcel as the proposed Wood Energy Utility Facility; the adjacent parcels support the NCSD administrative offices located at 900 Northstar Drive and a snow making pump house. The proposed building would not create any barriers that would impede access to the NCSD offices or to the Northstar Fire Department station. The thermal energy distribution pipeline would be installed below-grade along Northstar Drive and would not impede access to any of the existing land uses within the Northstar California ski resort community. Therefore, the project would not physically divide an established community.

b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less than Significant Impact with Mitigation Incorporated. As discussed throughout this Initial Study, it was found that with implementation of the mitigation measures identified in this Initial Study, the project would not result in unavoidable significant environmental impacts. As discussed in Sections 3.1, 3.3, 3.8, 3.9 and 3.13, the proposed project would have less than significant impacts related to aesthetics, air quality, GHG emissions, hazards and hazardous materials, and noise. As discussed in Sections 3.7 and 3.10, with implementation of the mitigation measures included in this Initial Study, the proposed project would have less than significant impacts related to geology, soils, hydrology, and water quality. Thus, the project

- is consistent with applicable policies and requirements of the Placer County General Plan and the Martis Valley Community Plan;
- would be consistent with the character of the immediate neighborhood and would not be contrary to orderly development within the Northstar California community;
- would comply with the Placer County development standards for the FOR zone, as defined in Section 17.12.010(D) of the Placer County Code; and
- would not be detrimental to the health, safety, peace, comfort and general welfare of people residing or working in the neighborhood of the proposed use or be detrimental or injurious to property or improvements in the neighborhood or to the general welfare of the county.

Mitigation Measures

No additional mitigation is required. Refer to Section 3.7 for Mitigation Measures GEO-1 through GEO-4 and Section 3.10 for Mitigation Measures HYD-1 through HYD-3.

3.12 Mineral Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Setting

The project site does not support mining activities and is not zoned for mineral extraction or preservation (Placer County 2003).

Impact Discussion

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. The Placer County General Plan and Martis Valley Community Plan do not identify any mineral resources that would be of value to the region or the residents of the state within the project site. The project would have no impact associated with the loss of availability of any known mineral resources.

b) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. No mineral extraction operations occur within the proposed project site. The project area is not designated by the Placer County General Plan or Martis Valley Community Plan as a mineral resource recovery site. Therefore, the project would have no impact associated with the loss of availability of any mineral resource recovery sites.

Mitigation Measures

No mitigation measures are required.

3.13 Noise

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE – Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Setting

The analysis and mitigation measures in this section are based on the noise modeling conducted by Dudek for the proposed project. The noise data is provided in Appendix G. The dominant noise source affecting the overall area is transportation noise, primarily generated from vehicular traffic on the local roadway network, SR 267 and aircraft overflights, primarily associated with the Truckee Tahoe Airport. The existing ambient noise environment in the project area was quantified through a noise measurement survey of the existing area and through the application of accepted noise prediction methodologies, based on industry-standard references.

Existing land uses within the immediate project vicinity consist of single-family and multi-family residential, and transient residential uses consistent with the area's General Plan land use designation of Tourist/Resort Commercial). Sensitive land uses in the vicinity of the proposed Wood Energy Utility Facility (908 Northstar Drive) are the existing multi-family residences located north, south and west of the Wood Energy Utility Facility site; with the nearest residential receptor being approximately 200 feet south of the proposed building, as shown in Figure 16, Sensitive Receptors.

An ambient noise survey was performed by Dudek on April 27 and 28, 2022, to document the existing noise environment in the project area. Noise measurements were performed using Larson Davis Model 831 precision integrating sound level meters. The primary noise sources affecting the noise monitoring locations was vehicular traffic on the regional roadway network and aircraft overflights. Additional noise sources experienced during the noise-monitoring program included noise from the natural environment.

Observations and cataloged noise level data collected during the ambient noise survey indicate that the noise level exposure at receptors in the area surrounding the project site is primarily attributable to vehicular traffic. To determine existing traffic noise levels, the average daily traffic volumes for the Northstar Drive, adjacent to the project site were used as inputs to the Federal Highway Administration traffic noise modeling prediction methodologies. The traffic noise levels at the receivers representing the residential setback distances near the project site, adjacent to Northstar Drive were modeled to be exposed to existing traffic noise levels of approximately 61 A-weighted decibels (dBA) Ldn during summer months. During winter months, traffic volumes along Northstar Drive have been shown to increase from the summer average annual daily traffic (AADT)

of 4,510 vehicle trips to an AADT of 14,450 vehicle trips; resulting in modeled existing traffic noise levels of approximately 66 dBA Ldn during winter months.

The project site is approximately 2.4 miles southwest of the Truckee Tahoe Airport, runway 29. The proposed project location is not located within any currently adopted 60, 65 or 70 dBA community noise equivalent level airport noise contours (TTALUC 2016). As such, while the proposed project area may experience aircraft overflights, noise associated with existing and future aircraft operations in the area is not a substantial contributor to the ambient noise environment.

There are no major sources of groundborne vibration in the project area. Transportation-related vibration from roadways in the vicinity of the project site is the primary source of groundborne vibration. Heavy truck traffic can generate groundborne vibration, which varies considerably depending on vehicle type, weight, and pavement conditions. However, groundborne vibration levels generated from vehicular traffic are not typically perceptible outside of the roadway right-of-way (Caltrans 2013).

Impact Discussion

a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction Noise

Development of the proposed project would generate noise levels associated with the operation of heavy construction equipment and construction-related activities in the project area. It is anticipated that the project would be constructed in five phases, tentatively beginning in September 2023 and concluding in October 2024. Project construction at the 908 Northstar Drive site would involve demolition of any elements remaining from the previous use and site preparation, grading, building construction, paving and Wood Energy Utility Facility equipment installation. The thermal energy distribution portion of the project would involve trenching and installation of distribution pipeline, pipeline connection to existing buildings via the heat exchangers, and backfilling and paving of the trench. The construction activities associated with this project are anticipated to occur between 6:00 a.m. and 8:00 p.m., Monday through Friday, with limited work potentially occurring on Saturday during daytime hours of 8:00 a.m. to 8:00 p.m., in compliance with the Placer County Code. Nighttime construction activities are not anticipated. Construction noise levels in the project area would fluctuate depending on the particular type, number, and duration of usage for the various pieces of equipment, as well as the relative exposure and distance between the source and receptors during the different stages of construction.

Table 3.13-1. Predicted Construction Noise Levels per Activity Phase for Wood Energy Utility Facility

Construction Phase (and Equipment Types Involved)	8-Hr. Leq, dBA (24-Hr. Ldn dBA) at Nearest Noise Sensitive Receptor from	
	Construction Boundary	Acoustical Centroid
Wood Energy Utility Facility (908 Northstar Drive)	145 feet	250 feet
Demolition and Site Preparation (concrete saw, excavator, loader)	69.1 (64.4)	63.5 (58.8)
Grading (excavator, grader, dozer, backhoe)	69.1 (64.3)	63.5 (58.7)
Building construction (crane, excavator, forklift, backhoe, welder)	68.9 (64.1)	63.2 (58.5)
Paving (paver, roller, concrete mixer truck)	66.9 (62.1)	61.2 (56.4)
Wood energy utility facility equipment installation (crane, forklift, welder, air compressor)	65.6 (60.8)	60.0 (55.2)

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.
Source: Appendix G

The distance to the acoustical centroid is used in a manner similar to the general assessment technique as described in the Federal Transit Administration (FTA) guidance for construction noise assessment (FTA 2018), where the location of individual equipment for a given construction phase is uncertain and where construction equipment is anticipated to operate over some extent of the construction site, near and far. For the acoustical centroid case, which intends to be a geographic average position for all equipment during the indicated phase, this analysis assumes that the equipment may be operating up to all 8 hours per day. The distance from the acoustics centroid of the project's construction operations and the nearest nose-sensitive receptor (3097 Silver Strike) would be approximately 250 feet, for the Wood Energy Utility Facility portion of the project. Table 3.13-1 summarizes these distances to the apparent closest noise-sensitive receptor for each of the construction phases.

As presented in Table 3.13-1, the predicted construction noise levels associated with equipment operating along the boundary of the project site are predicted to be as high as 69.1 dBA L_{eq} over an 8-hour period at the nearest existing residences, which would occur during the site preparation and grading phases. Modeled average construction noise levels propagated from the acoustical centroid of the construction activities are calculated to reach approximately 63.5 dBA L_{eq} over an 8-hour period at the nearest existing residences, also occurring during the site preparation and grading phases of project construction at the biomass facility site. Construction equipment noise levels for other construction activity phases are modeled to range from approximately 60 to 63 dBA L_{eq} at the nearest existing noise-sensitive receptors when propagated from the acoustical centroid of the project site.

The Placer County Code standard for non-transportation noise sources during daytime hours is 55 dBA L_{eq} and a maximum level standard of 70 dBA L_{max} or exceed the ambient sound level by 5 dBA. The modeled construction noise levels associated with the Wood Energy Utility Facility would not exceed the Placer County on-site non-transportation daytime hourly L_{eq} noise standard at the

nearest noise-sensitive receptor. Based on the calibrated existing (2012) traffic noise model, existing ambient traffic noise levels at the nearest noise-sensitive receptor would be 60.8 dBA L_{dn} during the summer months; proposed project construction L_{dn} noise levels are modeled to range from approximately 55 to 59 dBA L_{dn} at the noise-sensitive receptor nearest the Wood Energy Utility Facility. As such, the proposed facility construction noise levels are calculated to be less than five dBA over the ambient noise levels during the off-peak summer season (60.8 + 5 = 65.8 dBA); during the winter season, the proposed construction operations, with increased traffic volumes, the actions would have a further reduced impact on the ambient noise levels.

As such, noise generated from construction of the Wood Energy Utility Facility would comply with the ambient plus five dB threshold of the Placer County Code. Additionally, the proposed project construction operations would occur within the daytime hours of Monday through Friday, 6:00 a.m. and 8:00 p.m. and 8:00 a.m. and 8:00 p.m. on Saturday and Sundays, using well-maintained equipment, in compliance with the construction exemption requirements laid out in Placer County Code section 9.36.030. Therefore, construction of the proposed Wood Energy Utility Facility at 908 Northstar Drive would be a less than significant impact.

Thermal Energy Distribution Pipeline

The nearest noise sensitive residential receptor adjacent to the thermal energy distribution pipeline within and adjacent to the Northstar Drive right-of-way, which could utilize larger pieces of heavy equipment, would be the residence located at 7249 Larkspur Court. Table 3.13-2 provides the predicted construction noise levels associated with the potential heavy construction equipment that could be utilized for the installation of the thermal energy distribution pipeline. The residence at 7249 Larkspur Court would be approximately 45 feet from the boundary of construction activities and approximately 70 feet from the acoustical centroid of pipeline construction activities, at the nearest location on the pipeline alignment.

Table 3.13-2. Predicted Construction Noise Levels per Activity Phase for the Thermal Energy Distribution Pipeline

Construction Phase (and Equipment Types Involved)	8-Hr Leq, dBA (24-Hr Ldn, dBA) at Nearest Noise Sensitive Receptor from	
	Construction Boundary	Acoustical Centroid
	45 feet	70 feet
Trenching and Pipeline Installation (tractor/backhoe, air compressor, welder)	66.4 (61.7)	62.2 (57.4)
Backfill and Paving (paver, roller, tractor/backhoe)	67.2 (62.5)	63.0 (58.2)

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.
Source: Appendix G

As presented in Table 3.13-2, the predicted construction noise levels associated with equipment operating along the boundary of the thermal energy distribution pipeline construction are predicted to be as high as 67.2 dBA L_{eq} over an 8-hour period at the nearest existing residence, which would occur during the backfill and paving phase of the pipeline construction. Modeled average construction noise levels propagated from the acoustical centroid of the construction activities are

calculated to reach approximately 63 dBA L_{eq} over an 8-hour period at the nearest existing residences, which would also occur during the backfill and phase of project construction.

As with the construction of the Wood Energy Utility Facility, the thermal energy distribution pipeline construction would have the potential to exceed the Placer County daytime non-transportation noise level standards of 55 dBA Leq and 70 dBA Lmax, if the full complement of equipment associated with pipeline construction were to remain operational in the immediate vicinity of the nearest noise-sensitive receptors. The pipeline construction would not result in noise levels greater than five dB over the ambient noise level threshold established within the Placer County Code section 9.36.060, based on ambient noise levels associated with the existing (2012) traffic volumes. Moreover, the pipeline construction noise levels would be reduced based on short-term operation of the smaller complement of equipment, used for the portion of the pipeline construction process that is underway at a particular time, which would progress linearly along the pipeline alignment. Additionally, the proposed project construction operations would occur within the daytime hours of Monday through Friday, 6:00 a.m. and 8:00 p.m. and 8:00 a.m. and 8:00 p.m. on Saturday and Sundays, using well-maintained equipment, in compliance with the construction exemption requirements laid out in Placer County Code section 9.36.030. Therefore, construction of the proposed thermal energy distribution pipeline along Northstar Drive would be a less than significant impact.

Long-Term Operational Noise Sources

HVAC equipment for the proposed project is assumed to be located at-grade, adjacent to the Wood Energy Utility Facility conditioned spaces. The outdoor unit would be located adjacent to the proposed Wood Energy Utility Facility structure, typically near the indoor conditioned spaces. Based on manufacturer reference information provided by NCSD and the project design consultants, the outdoor unit has a sound power rating[9] (Sound Level Power [L_w] dB) of up to 95 dB. Assuming typical stationary non-transportation noise source attenuation of 6 dB per doubling of distance, the outdoor unit of the HVAC system associated the proposed Wood Energy Utility Facility would generate a noise exposure of 46 dB L_{eq}, if the outdoor unit was to remain active 100% of the time during peak operations. However, HVAC systems typically operate under more restricted cycle times, reducing generated noise levels commensurate to the operational time.

Additionally, accounting for additional noise level reductions provided by terrain, vegetation, atmospheric attenuation, excess ground absorption and partial shielding provided by intervening objects, the HVAC noise level would be reduced to below the Placer County Code non-transportation standard of 45 dBA L_{eq} during nighttime periods (10:00 p.m. to 7:00 a.m.). Therefore, the HVAC noise levels modeled for the proposed project are anticipated to comply with the Placer County non-transportation noise level thresholds and would be considered a less-than-significant impact.

On-site noise associated with the activities of haul trucks would typically include vehicles entering and exiting the site, temporary idling (limited to 5-minutes in one location per California regulations), setting and releasing of air brakes, doors opening and closing, and back-up

9 sound power (L_w) is the acoustic energy capable of being produced by an object and directly radiated out into the environment (energy radiated regardless of location), which is different from the sound pressure produced by a sound source at a distance (SPL, or L_p often presented as L).

alarms/parking activities at the docks and parking areas. Based on the FTA Transit Noise and Vibration Impact Assessment Manual, the reference source noise levels at a distance of 50-feet from the operational centerline would range from 80 to 83 dBA Sound Exposure Level[10] during a pass-by event.

Assuming that one haul truck operation would result in one in-bound and one out-bound trip within a one-hour period the energy equivalent average for tow haul truck vehicle trips are calculated to result in a noise levels between approximately 47 and 50 dBA L_{eq} at 3010 Silver Strike (a distance of 275 feet from the dock of the proposed Wood Energy Utility Facility. Additionally, the noise exposure at 3010 Silver Strike from the haul trucks at the dock would be shielded by the Wood Energy Utility Facility building and the adjacent Northstar Fire Department building, which would result in an additional noise level reduction of 5 dB or more simply by breaking line of site. The on-site haul truck noise at the dock area would generate a noise exposure levels between approximately 45 and 48 dBA L_{eq} at the nearest noise-sensitive receptors to the northwest, the eastern façade of 5006 Gold Bend. Additionally, the modeled on-site truck noise levels would be below the ambient noise levels. Therefore, project noise levels generated by heavy truck activity during a peak hour are predicted to comply with the Placer County Code non-transportation noise level thresholds and the relative increase threshold of +5 dB over the ambient. As such, noise levels generated by on-site heavy truck activity would be considered a less-than-significant impact.

Existing (2012) traffic volumes would result in modeled existing traffic noise levels in the project vicinity ranging from approximately 61 to 66 dBA Ldn at the sensitive receptors adjacent to Northstar Drive. Development of the proposed project under the Existing (2012) scenario and addition of the four heavy truck/haul truck vehicle trips would result in a change of 0.1 dB Ldn at the residences adjacent to Northstar Drive (3010 Silver Strike). The off-site traffic associated with the proposed project is not predicted to result in a relative increase in the ambient noise environment of +3dB or more. Therefore, traffic noise levels associated with the proposed project would be a less-than-significant impact.

As the woody biomass energy system component noise sources were located within the Wood Energy Utility Facility building, the building envelope was modeled to include the transmission loss realized by the wall and roof assemblies (e.g., the noise level reduction provided by the exterior building envelope). The Wood Energy Utility Facility building model conservatively included openings in the exterior building envelope at the appropriate locations for the roll-up doors of the fuel and ash storage areas and at the vent locations. Additionally, the computer model included exterior noise sources for the exhaust stacks. Environmental noise exposure levels were modeled at prediction receivers representative of noise-sensitive receptors near the Wood Energy Utility Facility, and are presented in Table 3.13-3.

Table 3.13-3. Modeled Wood Energy Utility Facility Noise Levels

Receiver			Modeled Noise Level, dBA	
No.	Address	Floor	Ldn	Leq
P-01	3010 Silver Strike	1st	46.1	39.7
		2nd	48.6	42.2

[10] Sound Exposure Level is the acoustic energy produced by a source or operation, summed into one second.

Table 3.13-3. Modeled Wood Energy Utility Facility Noise Levels

Receiver			Modeled Noise Level, dBA	
No.	Address	Floor	Ldn	Leq
P-02	3005 Silver Strike	1st	43.3	36.9
		2nd	43.2	36.8
P-03	5006 Gold Bend	1st	40.2	33.8
		2nd	40.6	34.2
P-04	5018 Gold Bend	1st	39.3	32.9
		2nd	40.0	33.6
P-05	538 Wolf Tree	1st	22.7	16.2
		2nd	26.3	19.9

Notes: L_{dn} = Day-Night noise level; L_{eq} = equivalent noise level; dBA = A-weighted decibels.
Source: Appendix G

As shown in Table 3.13-3, noise exposure levels resulting from the long-term operations of the wood energy system are modeled to range from a day-night level of approximately 23 to 49 dBA Ldn and hourly average levels of approximately 16 to 42 dBA Leq at the nearby noise-sensitive residential land uses surrounding the proposed facility. The greatest noise exposure levels are predicted to occur at the second floor of the nearest noise-sensitive receptor, across Northstar Drive at 3010 Silver Strike, with modeled noise levels of 48.6 dBA Ldn and 42.2 dBA Leq. Therefore, modeled noise level exposure at the nearby noise-sensitive receptors surrounding the Wood Energy Utility Facility are predicted to comply with the Placer County non-transportation noise level thresholds presented in the General Plan and County Code (50 dBA Ldn, 55 dBA Leq daytime, and 45 dBA Leq nighttime).

Existing (2012) ambient noise levels generated from traffic on Northstar Drive would range from approximately 61 dBA Ldn during the off-peak summer season, to approximately 66 dBA Ldn during the winter season. With a noise exposure level of 48.6 dBA Ldn from operation of the Wood Energy Utility Facility, the proposed project would not result in an increase in ambient noise levels and project operation would not be detrimental to the health, safety, peace, comfort and general welfare of people residing or working in the area. Thus, this impact would remain less than significant.

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Less-than-Significant Impact. The buildings closest to the proposed Wood Energy Utility Facility site are the fire station, constructed in 1971, and the NCSD administration building, constructed in 2015. The buildings in the Village at Northstar were constructed in 2006. Project construction would require excavation at the Wood Energy Utility Facility site and trenching along the thermal energy distribution pipeline alignment. These activities have the potential to generate groundborne vibration.

Construction activities on the proposed project sites (Wood Energy Utility Facility and thermal energy distribution pipeline) may result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and operations involved. Based on the 25-foot reference levels, construction vibration levels were calculated using standard Caltrans and FTA

equations at a distance of 45 feet to the west, to represent the closest existing structure, which would be the residence located at 7249 Larkspur Court. Project-generated groundborne noise and vibration levels at nearby sensitive receptors are not predicted to exceed the Caltrans recommended damage criteria of 0.5 in/sec peak particle velocity for the potential to damage new construction (Caltrans 2020).

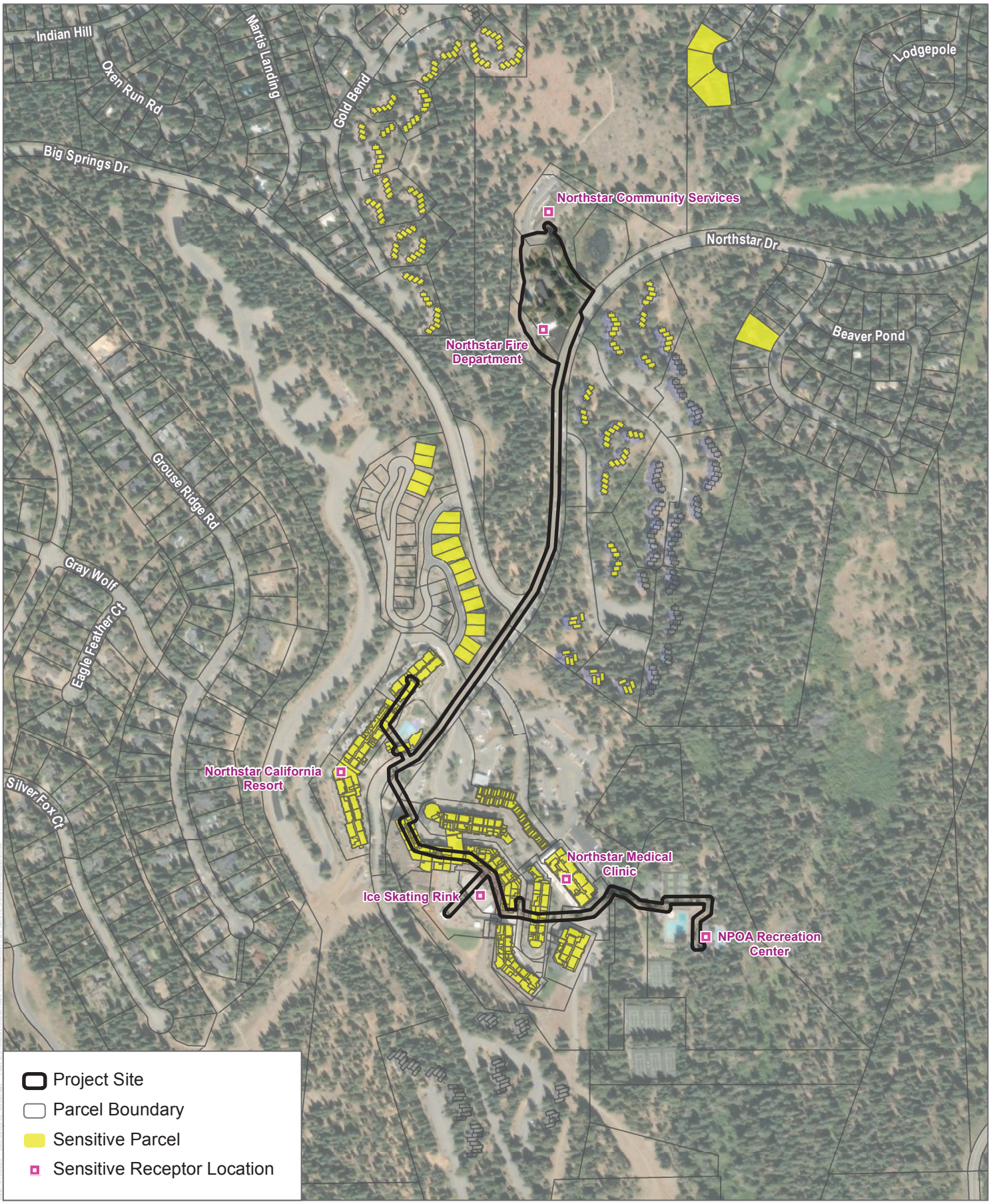
As such, predicted project-generated construction vibration levels would be a less than significant impact. The proposed project does not incorporate any project elements that would generate substantial groundborne noise and vibration levels at nearby sensitive receptors during its long-term operation. Therefore, this impact would be less than significant.

c) ***For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?***

No Impact. The nearest airport to the project site is the Truckee-Tahoe airport, which is located approximately 2.4 miles north of the project site. The northern portion of the project site, at the 908 Northstar Drive location, is within the "Other Airport Environs" designation of the Truckee-Tahoe Airport Land Use Compatibility Plan, Compatibility Zone E (TTALUC 2016). The project site may be subject to aircraft overflight but is not within or near any of the airport's approach or departure surfaces. Further, the project would not introduce any new residential or employment-generating land uses to the project area that could result in exposure of people residing or working in the area to excessive airport related noise levels.

Mitigation Measures

No mitigation measures are required.



SOURCE: ESRI Imagery 2022, Open Street Map 2019

DUDEK

0 250 500 Feet

FIGURE 16

Sensitive Receptors

Northstar Community Services District Wood Energy System Initial Study

3.14 Population and Housing

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING – Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Setting

The project site is located within the Northstar California community, which consists of several residential condominium neighborhoods and a resort commercial area within Northstar Village. No residences exist within the limits of disturbance for construction of the Wood Energy Utility Facility and installation of the thermal energy distribution pipeline. The nearest residential land uses to the project site are the Gold Bend Condominiums located approximately 0.5 miles northwest of the NCSD offices and the Aspen Grove Condominiums located approximately 0.5 miles south of the NCSD offices. There are also hotels and lodges located within the Village at Northstar.

Impact Discussion

a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact. The project would construct a Wood Energy Utility Facility and install a thermal energy distribution pipeline to serve existing residential, commercial, and recreational facilities within the Village at Northstar. The project would not introduce any new residential, commercial, or industrial land uses that could generate population growth. The project would extend new infrastructure through the existing Northstar California community to replace existing natural gas use with woody biomass-generated thermal energy. This would not increase the occupancy capacity of the existing residences that would be served by the proposed wood energy system. Thus, the project would have no impact because it would not induce population growth directly or indirectly. No mitigation measures are required.

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The project would construct a Wood Energy Utility Facility and install a thermal energy distribution pipeline to serve existing residential, commercial, and recreational facilities within Northstar Village. There was a non-residential building located at the proposed Wood Energy Utility Facility site until late 2022. The building was originally used as an office and most recently used as an outdoor oriented charter school/daycare center. The thermal energy distribution pipeline would be installed below-grade along Northstar Drive. The project would have no impact because it would not displace any existing people or housing. No mitigation measures are required.

Mitigation Measures

No mitigation measures are required.

3.15 Public Services

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Setting

The Northstar Fire District provides fire protection services to the Northstar California community, and the Placer County Sheriff's Office provides law enforcement services.

Educational services are provided in the area by the Tahoe Truckee Unified School District and private schools. The nearest schools are the Tahoe Expeditionary Academy, a private high school located on Schaffer Mill Road approximately 4 miles from the project site, Placer County Community School located on Estates Drive approximately 6 miles from the project site, and Forest Charter School, which serves transitional kindergarten through 12 grade and is located on Pioneer Trail approximately 7 miles from the project site.

The Northstar California community offers a wide range of active and passive recreational opportunities to residents and visitors.

Impact Discussion

a) ***Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:***

Fire protection?

Less-than-Significant Impact. The project would not introduce any new residential, commercial, or industrial land uses that could generate population growth. The project would extend new infrastructure for thermal energy distribution through the existing Northstar California community but would not increase the occupancy capacity of the existing residences and lodging facilities that would be served by the proposed wood energy system. The project would create a new Wood Energy Utility Facility, which would rely on combustion of woody biomass material to generate thermal energy. The Wood Energy Utility Facility would be housed in an approximately 6,000 square-foot building and would consist of two 1-megawatt boilers, a fuel (wood chip) storage bin, a fuel metering bin, and a thermal storage tank. Thus, the project would create a new source of potential combustion that could require fire protection response in the event of a system malfunction or emergency. However, the Northstar Fire Station is immediately adjacent to the proposed Wood Energy Utility Facility site which would ensure that response times to the Biomass Utility Facility site would be minimal. Further, as discussed in Section 3.9, Hazards and Hazardous Materials, response 3.9(g), the Wood Energy Utility Facility building would include an interior fire suppression system to minimize the chance that an operational malfunction could cause the structure to become fully engulfed in fire and for fire to spread to adjacent and nearby vegetation. The project would have a less-than-significant impact related to fire protection and would not be detrimental to the safety, peace, and comfort of people residing or working in the vicinity. No mitigation measures are required.

Police protection?

No Impact. The project would not introduce any new residential, commercial, or industrial land uses that could generate population growth. The project would extend new infrastructure through the existing Northstar California community for thermal energy distribution but would not increase the occupancy capacity of the existing residences and lodging facilities that would be served by the proposed wood energy system. The project would not directly or indirectly lead to an increase in the permanent or temporary residential population within the community and would not increase commercial or recreational activities. Thus, the project would not create any increased demands for police protection or law enforcement response and would not be detrimental to the safety, peace, and comfort of people residing or working in the vicinity. The project would have no impact on police protection and no mitigation measures are required.

Schools?

No Impact. The project would not introduce any new residential, commercial, or industrial land uses that could generate population growth. The project would extend new infrastructure through the existing Northstar California community for thermal energy distribution but would not increase the occupancy capacity of the existing residences and lodging facilities that would be served by the proposed wood energy system. Thus, the project would not directly or indirectly lead to an increase in the permanent or temporary residential population within the community and therefore would not generate any increase in demands for public or private school services. The project would have no impact associated with schools and no mitigation measures are required.

Parks?

No Impact. The project would not introduce any new residential, commercial, or industrial land uses that could generate population growth. The project would extend new infrastructure through the existing Northstar California community for thermal energy distribution but would not increase the occupancy capacity of the existing residences and lodging facilities that would be served by the proposed wood energy system. Thus, the project would not directly or indirectly lead to an increase in the permanent or temporary residential population within the community and therefore would not generate any increase in demands for parks and recreation facilities. The project would have no impact associated with use of recreation facilities and no mitigation measures are required.

Other public facilities?

No Impact. The project would not introduce any new residential, commercial, or industrial land uses that could generate population growth. The project would extend new infrastructure through the existing Northstar California community for thermal energy distribution but would not increase the occupancy capacity of the existing residences and lodging facilities that would be served by the proposed wood energy system. The project would not directly or indirectly lead to an increase in the permanent or temporary residential population within the community and would not increase commercial or recreational activities. Thus, the project would not create any increased demands for public facilities or public facility maintenance. The project would have no impact related to other public facilities and no mitigation measures are required.

Mitigation Measures

No mitigation measures are required.

3.16 Recreation

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Setting

The project site consists primarily of developed land within the Northstar California ski resort community. As shown on Figure 3, two segments of the Tomkins Memorial Trail pass near the northeastern portion of the project site, where the Wood Energy Utility Facility is proposed to be located.

Impact Discussion

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. The project would not introduce any new residential, commercial, or industrial land uses that could generate population growth. The project would extend new infrastructure through the existing Northstar California community for thermal energy distribution but would not increase the occupancy capacity of the existing residences and lodging facilities that would be served by the proposed wood energy system. The project would not directly or indirectly lead to an increase in the permanent or temporary residential population within the community and therefore would not generate any increase in the use of existing parks and recreation facilities that could lead to physical deterioration of such facilities. The project would have no impact associated with physical deterioration of recreational facilities and no mitigation measures are required.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

No Impact. The proposed project does not involve the construction or expansion of recreational facilities and no new or expanded recreational facilities would be required because the project

would not accommodate any increase in the permanent residential population or the visitor population of the Northstar California community. The project would have no impact related to construction or expansion of recreational facilities and no mitigation measures are required.

Mitigation Measures

No mitigation measures are required.

3.17 Transportation

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION – Would the project:				
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☐	☒
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☐	☒
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☐	☒

Setting

Vehicular access to the Northstar California community is provided by SR 267 and Northstar Drive. As discussed in Section 3.13, Northstar Drive carries approximately 4,510 daily vehicle trips in the summer and 14,450 daily vehicle trips in the winter. There are few sidewalks along roadways within the community; however, the Tomkins Memorial Trail provides opportunities for pedestrian travel.

Impact Discussion

a) Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

No Impact. As discussed in Section 2, Project Description, operating the project would require new truck traffic between TTSD and 908 Northstar Drive for fuel deliveries and ash disposal pickups. Fuel delivery would be accomplished using large chip vans (tractor trailers) and ash disposal pickups would be made with 30-yard disposal container trucks or similar vehicles. NCSD anticipates that the Wood Energy Utility Facility would require 3,800 BDT of fuel (wood chips)

annually. At an average fuel moisture content of 20 percent, this would entail the import of approximately 4,750 wet tons or 33,000 cubic yards of fuel. The vans that deliver the wood chips can hold between 100 and 120 cubic yards, thus the project would require between 275 and 330 round-trip truck trips per year. It is expected that there would be up to two truck deliveries per day in winter, with less frequent deliveries in other seasons. Ash would typically be removed once per week in winter and possibly less frequently in other seasons. Thus, at peak operation of the Wood Energy Utility Facility, there would be a maximum of three inbound and three outbound trips on a given day. There would be no changes in truck traffic associated with hauling woody biomass generated by NSCD's existing defensible space and forest fuel management program to the TTSD MRF.

Trucks bringing fuel to the Wood Energy Utility Facility from the TTSD MRF would travel on Cabin Creek Road to northbound SR 89, then east on I-80 to SR 267, and then along Northstar Drive. This would eliminate some existing truck trips that carry woody biomass material to Rio Bravo-Rocklin, Lockwood Landfill outside Reno, and Full Circle Compost in Minden, Nevada. Trucks off-hauling ash from the Wood Energy Utility Facility would travel in the opposite direction on the same route to deliver material to the landfill or would travel on SR 89 north of Truckee to deliver material to farms in the Sierra Valley.

It is noted that the Wood Energy Utility Facility site recently supported an outdoor oriented charter school/daycare center. The prior building at this site was demolished in fall 2022; the school/daycare was operating at maximum building capacity of 78 people (students and staff) prior to vacating the building. Operation of the Wood Energy Utility Facility would generate fewer daily traffic trips than the prior school/daycare center. The truck traffic associated with fuel delivery and ash disposal pickups would not exceed the capacity of the roads in the project area and would not contribute to or exacerbate any roadway design deficiencies. Project-related traffic on Northstar Drive, SR 267, and I-80 would not interfere with operating conditions on these roadways during either typical daily conditions or emergency response and/or evacuation conditions. After construction is complete, the project would not affect the design capacity of Northstar Drive.

The project would not require any changes to existing transit, bicycle, or pedestrian facilities. The project also would not increase use of such facilities because it would not generate any new residential or employment population or construct any new recreational facilities in the Northstar California community.

The project would have no impact related to conflicts programs, plans, ordinances, or policies addressing the circulation system and no mitigation measures are required.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

No Impact. As discussed in Section 3.3, Air Quality, response 3.3(a), the proposed project would reduce VMT as compared to the existing baseline conditions by hauling the woody biomass obtained from TTSD to the proposed Wood Energy Utility Facility (approximately 25 miles roundtrip) rather than having this material disposed of at Full Circle Compost in Nevada (approximately 153 miles roundtrip) or Rio Bravo-Rocklin (approximately 183 miles roundtrip) or Honey Lake Power

(approximately 197 miles roundtrip) and Lockwood Landfill (approximately 107 miles roundtrip). Further, the NCSD Wood Energy System would be maintained by existing NCSD employees and would not require additional trips, as NCSD operations employees are based at the NCSD administrative offices adjacent to the Wood Energy Utility Facility site and already visit a water pump station adjacent to the site. In addition, as discussed in response 3.17(a), operation of the Wood Energy Utility Facility would generate fewer daily traffic trips than the prior school/daycare center, which would also contribute to reducing VMT in the project region. Thus, the project would not conflict with or be inconsistent with CEQA Guidelines section 15064.3(b) and the project would have no impact related to increasing VMT.

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

No Impact. The project would not require any modifications to existing roadways. The project would not create any sharp curves, dangerous intersections, or other geometric design features that could increase roadway hazards. The project would not introduce any new types of vehicles to the local roadway network that could cause incompatibility with existing roadway traffic. As noted in response (a), fuel deliveries and ash disposal pickup would require use of tractor trailers and 30-yard disposal container trailers, which are similar to vehicles that are already present on the roads that would be used to access the Wood Energy Utility Facility. The project would have no impact associated with roadway hazards and no mitigation measures are needed.

D) Would the project result in inadequate emergency access?

Less-than-Significant Impact. Northstar Drive provides the sole ingress and egress route for the Northstar California community. It connects to SR 267 approximately one mile from the project site. If evacuation of the Northstar California community were necessary, people within the area would use Northstar Drive, SR 267, and I-80. Project related traffic would also use Northstar Drive, SR 267, and I-80 to transport woody biomass material harvested from the community to TTSD, transport the processed wood chips to the Wood Energy Utility Facility, and transport the residual ash from the Wood Energy Utility Facility to end-users.

As discussed in Section 3.9, Hazards and Hazardous Materials response (f), the project would not require modifications to existing roadways that could impede emergency response or evacuation activities. During project construction, the project would require the temporary partial closure of Northstar Drive to allow for trenching and installation of the proposed thermal energy distribution pipeline. Any such closure would be coordinated with the Northstar Fire Department to ensure that traffic control plans include provisions for adequate access to all parts of the Northstar California community. Notification would also be provided to the Placer County Sheriff's Office. Upon completion of construction, Northstar Drive would be restored to its existing condition. As such, construction and operation of the proposed project would not be detrimental to the health, safety, and general welfare of people residing or working in the vicinity in relation to inadequate emergency access. The project would have a less-than-significant impact, and no mitigation measures are required.

Mitigation Measures

No mitigation measures are required.

3.18 Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES				
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☐	☒
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒

Setting

The cultural context for the project region is described in Section 3.5, Cultural Resources.

Impact Discussion

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

No Impact. As discussed in response 3.5(a), the Built Environment Inventory and Evaluation Report prepared for the project found that the project site does not contain any resources listed or

eligible for listing in a register of historical resources at the local or state level (Appendix D). The project would have no impact on historic resources and no mitigation measures are required.

b) ***A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.***

No Impact. As noted in Section 3.0, Initial Study Checklist, NCSD has not received any requests under Public Resources Code section 21080.3.1 for notification of projects subject to CEQA from California Native American tribes traditionally and culturally affiliated with the project area. As discussed in response 3.5(b), the Cultural Resources Assessment prepared for the project included a records search through the North Central Information Center and an intensive pedestrian survey of the project site. There are no records of cultural resources that intersect the project APE and no cultural resources were located during the field survey. Based on the results of the records search, intensive pedestrian survey, correspondence with the NAHC, and review of previous technical studies for this area, and given the relatively limited degree of disturbance required by the project, the likelihood of encountering unanticipated significant subsurface archaeological deposits or features that may be considered a tribal cultural resource is considered low. Implementation of Mitigation Measure TCR-1 would ensure that in the event that a possible tribal cultural resource is encountered during grading, excavation, or trenching, the resource would be subject to evaluation and appropriate management measures would be applied if a significant resource is identified. This would ensure that the project would result in less-than-significant impacts to tribal cultural resources.

Mitigation Measures

MM-TCR-1 Unanticipated Tribal Cultural Resources. If potential Tribal Cultural Resources (TCRs) or human remains are discovered during construction activities, all work shall cease within 100 feet of the find (based on the apparent distribution of cultural resources). Examples of potential TCRs include midden soil, artifacts, chipped stone, exotic (non-native) rock, or unusual amounts of baked clay, shell, or bone.

A qualified cultural resources specialist and Native American Representative from the traditionally and culturally affiliated Native American Tribe(s) will assess the significance of the find and make recommendations for further evaluation and treatment as necessary. Culturally appropriate treatment that preserves or restores the cultural character and integrity of a TCR may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, construction monitoring of further construction activities by Tribal representatives of the traditionally and culturally affiliated Native American Tribe, and/or returning objects to a location within the project area where they will not be subject to future impacts.

If human remains are discovered during construction activities, the County Coroner and Native American Heritage Commission shall be contacted immediately. Upon determination by the County Coroner that the find is Native American in origin, the Native American Heritage Commission will assign the Most Likely Descendant(s) who will work with the project proponent to define appropriate treatment and disposition of the burials.

Following a review of the find and consultation with appropriate experts, the authority to proceed may be accompanied by the addition of development requirements which provide for protection of the site and/or additional measures necessary to address the unique or sensitive nature of the site. The treatment recommendations made by the cultural resource specialist and the Native American Representative will be documented in the project record. Any recommendations made by these experts that are not implemented, must be documented and explained in the project record. Work in the area(s) of the cultural resource discovery may only proceed after authorization is granted by the Placer County Community Development Resource Agency following coordination with cultural resources experts and tribal representatives as appropriate.

3.19 Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☐	☒
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Setting

Utility services are available throughout the Northstar California community. Potable water supply is provided by NCSD, with water drawn from groundwater wells and mid-mountain springs, treated onsite and distributed to residences and businesses, as discussed in Section 3.10 Hydrology and Water Quality. Wastewater collection and conveyance is also provided by NCSD while wastewater treatment is provided by the Tahoe-Truckee Sanitation Agency. Stormwater is managed with a system of roadside ditches and stormwater drainage lines that discharge to detention basins, such as the basin located east of the 908 Northstar Drive property. Electrical and natural gas services are provided by Liberty Utilities and Southwest Gas. Telecommunication services are available from a variety of private providers. Solid waste pick-up service is provided by TTSD through a contract with NCSD. Solid waste is transported to TTSD's MRF, where the materials are sorted in accordance with California's mandatory solid waste diversion requirements. Waste materials are then transported to the Lockwood Regional Landfill, a 1,535-acre municipal solid waste facility located in Storey County, Nevada. The TTSD MRF is permitted to receive 800 tons of material per day and 832 vehicles per day and is operated subject to a Solid Waste Facility Permit under the jurisdiction of the California Department of Resources Recycling and Recovery (Placer County Environmental Utilities 2018). The Lockwood Regional Landfill has a total capacity of 302.5 million cubic yards. As of 2010 the landfill had a remaining capacity of 264.68 million cubic yards (Nevada Division of Environmental Protection 2017).

Impact Discussion

a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

No Impact. The project would not change the land uses within the project site, with the exception of adding the Wood Energy Utility Facility to the 908 Northstar Drive property. Another building had been present in this location between 1971 and 2022; it had originally housed fire department equipment bays and barracks, later was used for the NCSD administrative offices, and was most recently used as an outdoor oriented charter school/daycare center.

The project would not introduce any new residential, commercial, or industrial land uses that could generate population or employment growth. The proposed Wood Energy Utility Facility would be operated and maintained by existing NCSD personnel. The project would extend new infrastructure through the existing Northstar California community for thermal energy distribution but would not increase the occupancy capacity of the existing residences and lodging facilities that would be served by the proposed wood energy system. The project would not directly or indirectly lead to an increase in the permanent or temporary residential population within the community and would not increase commercial or recreational activities. Thus, the project would not create any increased demands for water supply, wastewater collection and treatment, electric power or telecommunication facilities. The proposed elements of the project design to adequately manage stormwater runoff are discussed in detail in Section 3.10, Hydrology and Water Quality. The project would not require construction of new stormwater drainage facilities beyond the project site and would not require expansion of existing stormwater drainage infrastructure.

The project would install a new wood energy system, consisting of the Wood Energy Utility Facility, thermal energy distribution pipeline, and heat exchangers at each of the connected facilities. The environmental effects of constructing and operating the proposed wood energy system are evaluated throughout this Initial Study. With implementation of the mitigation measures identified within this Initial Study, the project would not result in any significant unavoidable adverse environmental effects.

b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

No Impact. As discussed in response 3.19(a), the proposed project would not introduce any new land uses that could generate population or employment growth or increase commercial or recreational activities within the community. The project would extend new infrastructure through the existing Northstar California community for thermal energy distribution but would not increase the occupancy capacity of the existing residences and lodging facilities that would be served by the proposed wood energy system. The proposed Wood Energy Utility Facility would be operated and maintained by existing NCSD personnel. Thus, the project would not create any increase in demand for water supplies. Thus, there would be no impact associated with available water supply during normal, dry, and multiple dry years and no mitigation measures are required.

c) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact. As discussed in response 3.19(a), the proposed project would not introduce any new land uses that could generate population or employment growth or increase commercial or recreational activities within the community. Thus, the project would not create any increase in demand for wastewater treatment and there would be no impact associated with TTSA's capacity to provide wastewater treatment services. No mitigation measures are required.

d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less-than-Significant Impact. Operation of the proposed Wood Energy Utility Facility would generate between 140 and 260 tons of ash per year. Ash would be off-hauled and delivered to farms in Sierra Valley for use as soil amendments or disposed of off-site at a transfer station or landfill. The project would consume approximately 3,800 BDT of woody biomass material annually, which could curtail some amount of biomass material being transported from the TTSD MRF to the Lockwood Regional Landfill. The Lockwood Regional Landfill is a 1,535-acre municipal solid waste facility located in Storey County, Nevada. The TTSD Eastern Regional Landfill is permitted to receive 800 tons of material per day and 832 vehicles per day and is operated subject to a Solid Waste Facility Permit under the jurisdiction of the California Department of Resources Recycling and Recovery (Placer County Environmental Utilities 2018). The Lockwood Regional Landfill has a total capacity of 302.5 million cubic yards. As of 2010 the landfill had a remaining capacity of 264.68 million cubic yards (Nevada Division of Environmental Protection 2017). The additional processing and disposal of up to 260 tons of ash per year would not have a significant impact on the TTSD Eastern Regional Landfill and Lockwood Regional Landfill because there is sufficient processing and disposal capacity at each facility to handle this waste without leading to premature closure of the facilities.

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less-than-Significant Impact. As discussed in response 3.19(d), the project would generate between 140 and 260 tons of ash per year, some of which may be transported to the TTSD MRF for sorting and potential disposal at the Lockwood Regional Landfill. The ash would not contain constituents that would require it to be classified as hazardous waste. Further, to the degree feasible, the ash may be diverted to farms in the Sierra Valley for use as soil amendments, which would support regulatory efforts to reducing the amount of solid waste disposed of at landfills. Thus the project would have a less-than-significant impact related to compliance with solid waste disposal regulations and no mitigation measures are required.

Mitigation Measures

No mitigation measures are required.

3.20 Wildfire

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

Setting

The Northstar California community is located in a forested area in the Sierra Nevada mountain range and is considered a wildland urban interface area. The project site is located within a Very High FHSZ within a State Responsibility Area (CalFire 2022). As noted in Section 2, Project Description, the forests in the Tahoe-Truckee region contain dangerously high levels of hazardous woody biomass. The region is highly susceptible to wildfire, with the vegetation and topography being key contributing factors to this risk.

As discussed in Section 3.9, Hazards and Hazardous Materials, the Northstar Fire Department has adopted a CWPP that provides guidance for managing forest fuels and maintaining defensible space around structures, recommendations for ignition resistant building construction, and NCSD Ordinances 35-19 and 36-19, under which the NCSD Board adopted wildland fire prevention and defensible space requires and the 2019 California Fire Code along with local amendments.

For many years, NCSD has implemented a forest fuel management program and a defensible space program. The forest fuel management program involves thinning forest vegetation as well as limbing up trees, which is when lower branches are removed to ensure that the tree does not act as a natural ladder

along which fire can climb from ground level vegetation to the tree canopy where it could be more rapidly and distantly spread by wind. Fuel management treatment was conducted on all land surrounding the proposed Wood Energy Utility Facility site between 2018 and 2020 (Northstar Fire Department 2021).

Impact Discussion

a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. The proposed project would construct a Wood Energy Utility Facility at a previously developed site. The project would not increase the residential population or generate new employment or recreation opportunities in the project area that would increase the volume of traffic necessary to evacuate the area in the event of a wildfire.

Northstar Drive provides one of three primary paved ingress and egress routes for the Northstar California community. It connects to SR 267 approximately one mile from the project site. If evacuation of the Northstar California community were necessary, people within the area would primarily use Northstar Drive, SR 267, and I-80. Project related traffic would also use Northstar Drive, SR 267, and I-80 to transport woody biomass material harvested from the community to TTSD, transport the processed fuel (wood chips) to the Wood Energy Utility Facility, and transport the residual ash from the Wood Energy Utility Facility to end-users. The project would not require any changes to roads and as discussed in Section 3.17, Transportation, it would not add a substantial volume of traffic to local roadways. Thus project-related traffic on Northstar Drive, SR 267, and I-80 would not interfere with operating conditions on these roadways during either typical daily conditions or emergency response and/or evacuation conditions.

The Wood Energy Utility Facility is intended to provide heat to the connected facilities. Heating demand is lower in the summer, while wildfire risk is much greater in dry months than during the winter. Thus, the periods of peak Wood Energy Utility Facility operations would not coincide with the periods of greatest fire risk. Additionally, in the event of a wildfire, NCSD would curtail wood energy system operations and all associated vehicle traffic.

The proposed project would not impair implementation of the County's emergency response or evacuation plans and procedures.

b) Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less Than Significant Impact. As noted above, the project site is in a Very High FHSZ (CalFire 2022); this reflects that the project region is heavily vegetated and contains many areas of steep slopes with limited accessibility for emergency response. As noted in the Setting section above, the areas adjacent and proximate to the project site have all been treated under NCSD's forest fuel management and defensible space programs in recent years. Thus, while the site is in a designated Very High FHSZ, actions have been taken to minimize the fire risk in and surrounding the site.

The proposed project would not result in a significant increase in the risk of wildfire ignition or spread. All of the woody biomass combustion equipment and storage areas would be located interior to the Wood Energy Utility Facility building, which would include an interior fire suppression system that would automatically operate in the event of an equipment malfunction that causes fire ignition within the building. The thermal energy distribution pipeline would be located underground and insulated such that it would not expose adjacent land, vegetation, or structures to heat. Thus, the project would not create any new potential sources of wildfire ignition. Further, as explained previously, the project would not increase the residential population or generate new employment or recreation opportunities in the project area and therefore would not increase the level of human activity in the area. Thus, the project would not significantly exacerbate the wildfire risks in the project region or the potential for people within the Northstar California community to pollutant concentrations associated with wildfire. No mitigation measures are required.

c) Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less-than-Significant Impact. During project construction, use of construction equipment could temporarily increase the risk of fire ignition at the project site. However, with standard construction management techniques, this risk would be no greater than other development projects in the region. Further, implementation of NCSD's forest fuel management and defensible space programs within and adjacent to the project site further minimizes the risk of wildfire ignition and spread.

As discussed in response 3.20(b), all of the woody biomass combustion equipment and storage areas would be located interior to the Wood Energy Utility Facility building, which would include an interior fire suppression system that would automatically operate in the event of an equipment malfunction that causes fire ignition within the building. The thermal energy distribution pipeline would be located underground and insulated such that it would not expose adjacent land, vegetation, or structures to heat. The project would have no impact because operation, including routine and emergency maintenance of the Wood Energy Utility Facility and the thermal energy distribution pipeline would not result in a significant increase in the risk of wildfire ignition in the project area. No mitigation measures are required.

D) Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. As discussed in response 3.20(c), the project would not result in a significant increase in the risk of wildfire ignition in the project area. Further, the proposed project would not create unstable slopes, substantial changes in existing drainage conditions, other conditions that could increase risks of physical hazards in the event that the project area is affected by a wildfire. Thus, the project would have no impact associated with exposing people or structures to risks related to post-fire events, such as landslides and flooding. No mitigation measures are required.

3.21 Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

a) ***Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?***

As discussed in Section 3.4, Biological Resources, the project would have a less than significant impact to special status plant and wildlife species and aquatic resources with incorporation of mitigation measures identified in that section. The predominant land cover type within the project site is developed and the study area supports a limited area of mixed coniferous forest and riparian scrub. All of the special status plant and wildlife species that may occur in the project region were determined to have a low potential to occur or are not expected to occur within the project site. However, the project could indirectly affect special status plants that have a low potential to occur at the perennial pond near the proposed Wood Energy Utility Facility location. Mitigation Measure

BIO-1 would reduce the potential for indirect impacts to occur to a less-than-significant level by requiring installation of exclusion fencing or flagging between the pond/riparian vegetation and the limits of disturbance during construction as well as implementation of erosion control and spill prevention measures.

In addition, the project site provides suitable nesting habitat for numerous local and migratory bird or raptor species protected by the federal Migratory Bird Treaty Act and the California Fish and Game Code. No active or inactive bird nests were observed during the field survey conducted as part of preparation of the Preliminary Biological Resources Assessment technical memorandum, however the project has the potential to adversely affect migratory birds and raptors when construction activities occur during the nesting season. Mitigation Measure BIO-2 would ensure that impacts to nesting birds are avoided by requiring nesting bird surveys and implementation of avoidance measures. Thus, with those mitigation measures incorporated in the project, the project would not cause substantial reductions in the habitat for, population of, or range of wildlife or plant communities.

As discussed in Section 3.5, Cultural Resources, there are no known examples of major periods of California history or prehistory within the project site and the project would not eliminate resources important to understanding major periods of California history or prehistory.

As discussed in Sections 3.7 Geology and Soils, 3.9 Hazards and Hazardous Materials, 3.10 Hydrology and Water Quality, and 3.20 Wildfire, the project could result in potentially less than significant impacts that may degrade the quality of the environment, but these impacts would be reduced with implementation of the mitigation measures identified in those sections. Thus, with the mitigation measures incorporated in the project, the project would not cause any significant degradation of the environment. Further, as demonstrated in these sections, with implementation of the identified mitigation measures, the proposed project would comply with applicable policies and requirements of the Placer County General Plan, Martis Valley Community Plan, and the Placer County Code.

b) ***Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)***

The project property is located within the Northstar California community and ski resort, which is in Placer County and located approximately six miles south of downtown Truckee. The proposed NCSD Wood Energy System would improve the economic viability, environmental impact, and overall effectiveness of removing and repurposing forest biomass in order to reduce wildfire risk and restore watershed health. The cumulative development scenario for the project region consists of continued buildout of the Northstar California community, which is approximately 57 percent built-out, with potential for development of up to 529 additional single-family residences and up to 1,069 additional condominium and hotel units (NCSD 2020), as noted in Section 3.11, Land Use and Planning and consistent with the Martis Valley Community Plan. The cumulative development scenario also includes ongoing development within Martis Valley, such as buildout of approved residential subdivisions and limited commercial development.

As discussed throughout this Initial Study, the project would not result in substantial changes in many of the environmental resource areas considered, including aesthetics, air quality, energy, greenhouse gas emissions, land use and planning, mineral resources, population and housing, public services, recreation, transportation, and utilities and service systems. The project would either have no impact or a less than significant impact on these resources. Where a less than significant impact would occur, the effect would be limited to the direct effects of the project within the project site and would not combine with the effects from other projects in the region, thus these effects would not be cumulatively considerable.

The project has the potential to result in indirect adverse effects to special status plant species and to adversely affect soils and water quality in the project area. This Initial Study identifies several mitigation measures to ensure that the project's effects to such resources are avoided or minimized through compliance with the Placer County Code as well as applicable state and federal regulations. Thus, the project-specific direct impacts were found to be less than significant with mitigation incorporated, and the identified mitigation measures are sufficient to ensure that the project's incremental effects are minimized or avoided and would not be cumulatively considerable. Further, other development and redevelopment projects in the region would be subject to similar mitigation requirements to ensure compliance with local, state, and federal regulations which have been adopted with the intent of protecting environmental resources.

In conclusion, where the project has the potential to contribute to significant cumulative impacts in the project region, the project's direct effects would be lessened with implementation of mitigation measures identified in this Initial Study such that they would not combine with impacts of other projects in the region and thus all of the project's potential contributions to cumulative impacts would be less than significant with mitigation incorporated.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Sections 3.1 through 3.20 of this Initial Study provide analysis of the project's potential environmental impacts, including adverse effects on human beings. Section 3.3, Air Quality, finds that the project would not expose individuals within the project area to substantial adverse health effects; Section 3.9 Hazards and Hazardous Materials finds that the project would not expose individuals within the project area to substantial adverse hazards; Section 3.13, Noise, finds that the project would not expose individuals within the project area to substantial adverse noise effects; and Section 3.20 Wildfire finds that the project would not expose individuals within the project area to substantial adverse effects associated with wildfire hazards. The analysis in these sections demonstrates that the proposed project would not be detrimental to the health, safety, and general welfare of people residing or working in the vicinity and would not be detrimental or injurious to property or improvements in the neighborhood or to the general welfare of the county, and that the project is consistent with applicable policies and requirements of the Placer County General Plan, the Martis Valley Community Plan, and the Placer County Code.

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Allie Sennett, Biologist
Raoul Ranoa, Graphics Specialist
Aaron Atencio, Graphics Specialist
Rachel Strobridge, GIS and Graphics

Northstar Community Services District

Eric Martin, Director of Public Works
Mike Staudenmayer, General Manager

PR Design and Engineering, Inc.

Andrew Ryan, PE
Meghan Jewett

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