

Negative Declaration Neal Road Recycling and Waste Facility Composting Project

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AB	Assembly Bill
ATCM	Airborne Toxic Control Measure
BRCP	Butte Regional Conservation Plan
BCAQMD	Butte County Air Quality Management District
BMP	Best management practice
CAP	Climate Action Plan
CARB	California Air Resources Board
CASP	Covered aerated static pile
CEQA	California Environmental Quality Act
CFGF	California Fish and Game Code
cy	Cubic yard
EPA	Environmental Protection Agency
GHG	Greenhouse gas
IS	Initial Study
JTD	Joint Technical Document
LEA	Local Enforcement Agency
MTBA	Migratory Bird Treaty Act
ND	Negative Declaration
NPDES	National Pollutant Discharge Elimination System
NRRWF	Neal Road Recycling and Waste Facility
NSR	North State Rendering
NSVAB	Northern Sacramento Valley Air Basin
SB	Senate Bill
SR	State Route
SVAB	Sacramento Valley Air Basin
SWRCB	State Water Resources Control Board
SWPPP	Storm Water Pollution Prevention Plan

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1 Introduction

1.1 Project Overview

The project consists of the proposed Neal Road Recycling and Waste Facility Composting Project (proposed project) at the Neal Road Recycling and Waste Facility (NRRWF) located at 1023 Neal Road, Paradise, California. The proposed project is in response to Senate Bill (SB) 1383, which requires a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent organic waste reduction by 2025. The project location, project setting and surrounding land uses, and specific project elements are further described in Chapter 3, Initial Study Checklist.

1.2 California Environmental Quality Act Compliance

This Initial Study (IS) has been prepared per the requirements of the California Environmental Quality Act (CEQA) of 1970 (California Public Resources Code Section 21000, et seq.), and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq.). Butte County Public Works is the lead agency for the project and would approve the project and adopt the proposed Negative Declaration (ND).

1.3 Public Review Process

The IS and proposed ND will be circulated for public review for a period of 30 days, pursuant to CEQA Guidelines Section 15073(a). The City will provide public notice at the beginning of the public review period.

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2 Summary of Findings

2.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project. All of the impacts can be reduced to a less-than-significant level with mitigation measures identified in the following checklist.

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

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3 Initial Study Checklist

1. Project title:

Neal Road Recycling and Waste Facility Composting Project

2. Lead agency name and address:

Butte County
Department of Public Works
7 County Center Drive
Oroville, California 95965

3. Contact person and phone number:

Eric Miller
530.693.7835

4. Project location:

The proposed project would be within the existing Neal Road Recycling and Waste Facility (Assessor's Parcel Number 040-600-082) in unincorporated Butte County near the Town of Paradise, southeast of the City of Chico and east of the census-designated place of Durham off of State Route 99.

5. Project sponsor's name and address:

Butte County
Department of Public Works
7 County Center Drive
Oroville, California 95965

6. General plan designation:

Public; Solid Waste Management Facility overlay

7. Zoning:

Public; Neal Road Recycling, Energy, and Waste Facility overlay

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

The Butte County Public Works Department is the CEQA lead agency and primarily responsible for implementation of the project.

Project funding includes state grants administered by CalRecycle. The proposed project would be required to comply with CalRecycle regulations pertaining to compostable material handling facilities and operation detailed in 14 CCR Chapter 3.1. A Report of Compost Site Information (RCSI) is required for all compostable

material handling facilities and for vegetative food material composting facilities, as specified in 14 CCR 17863. The RCSI is a regulatory document that describes how a facility will meet state minimum standards for a number of aspects of the composting facility. The RCSI would describe site layout, facility processes, a schematic drawing, emergency provisions, identification of responsible oversight. Additionally, an Odor Impact Minimization Plan would be prepared per 14 CCR 17863.4. Along with the RCSI, CalRecycle Form E-1-77 for the Solid Waste Facility Permit application would be submitted to the Butte County Environmental Health Department, acting as the Local Enforcement Agency (LEA).

The Non-disposal Facility Element (NDFE), which identifies CalRecycle-permitted "non-disposal" facilities used by a jurisdiction to help reach diversion mandates per the California Integrated Waste Management Act, would be updated. A jurisdiction is required to update its NDFE when siting a new non-disposal facility within its jurisdiction that requires a Solid Waste Facility Permit.

Construction and operation of the CASP will require an amendment to the Joint Technical Document (JTD) for NRRWF. The JTD would be amended to include information on project design components, leachate collection, and other measures specific to the proposed composting operation. The amendment must be approved by the Butte County Environmental Health Department.

Butte County Public Works would be required to implement erosion control measures during construction, stipulated in a Stormwater Pollution Prevention Program (SWPPP) pursuant to Order 2014-0057-DWQ, National Pollutant Discharge Elimination System (NPDES), General Permit for Storm Water Discharges Associated with Industrial Activities, Order NPDES No. CAS000001 (industrial general permit). Landfills are covered by this industrial general permit and are thus required to develop a site-specific SWPPP demonstrating compliance with its requirements (SWRCB 2015). A SWPPP and monitoring program is currently in effect at the facility and would be modified to include best management practices specific to the proposed composting operation. A spill response plan for hazardous materials would also be implemented in compliance with NPDES requirements. The NRRWF has already submitted a Hazardous Materials Business Plan (Business Plan) for hazardous material storage and currently has a Spill Prevention, Control and Countermeasure (SPCC) Plan for aboveground storage of petroleum. The NRRWF is not proposing any significant increases to hazardous material or petroleum storage that would require updates since they will be utilizing existing hazardous materials and petroleum at the facility.

On approval, the LEA will grant a stand-alone Solid Waste Facility Permit, allowing for operation of the proposed compost facility. The Regional Water Quality Control Board will also review the proposed amendment to the JTD and the Waste Discharge Requirements which the facility operates under (Order WQ 2015-121-DWQ).

9. **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.?**

No California Native American tribes have requested notification pursuant to Public Resources Code section 21080.3.1(d) for projects in the vicinity of the NRRWF.

10. Description of project:

Project Location and Setting

Project Site

The proposed project would be within the footprint of the existing NRRWF, which is located in unincorporated Butte County (County), near the Town of Paradise, southeast of the City of Chico and east of the census-designated place of Durham off of State Route (SR) 99 (see Figure 1, Regional Location). The approximately 15-acre project site is within a parcel spanning approximately 190 acres total, with 140 acres permitted for the disposal of solid waste. The Assessor's Parcel Number (APN) is 040-600-082. The Butte County General Plan 2030 designates the project site as Public with the Solid Waste Management Facility overlay (Butte County 2012). The site is zoned as Public with the Neal Road Recycling, Energy, and Waste Facility overlay (Butte County 2019).

According to the County Code, the purpose of the Public zone is to allow for public and quasi-public facilities that serve Butte County residents and visitors (Butte County Code of Ordinances, Section 24-28). Permitted uses in the Public zone include public and private schools; parks and playgrounds; community centers; interpretive facilities; public libraries; governmental offices; and police and fire stations. Uses permitted with the approval of a Conditional Use Permit include hospitals, cultural institutions, religious facilities, and large-scale facilities such as dams and reservoirs, landfills, cemeteries and mausoleums, correctional institutions, major utilities, and other similar public works projects (ibid.).

The Neal Road Recycling, Energy, and Waste Facility overlay zone promotes compatible development around the NRRWF (Butte County Code of Ordinances, Section 24-44). The overlay zone also ensures adequate separation between the NRRWF and land uses that are potentially incompatible with landfill activities. This overlay is intended to promote the diversion of solid wastes into appropriate recycling facilities, energy generation, and other uses that add value and benefit to the local economy (ibid.).

Surrounding Land Uses

The project site is adjacent to a parcel (APN 040-600-081) to the south at 999 Neal Road zoned as Heavy Industrial and designated in the Butte County General Plan 2030 as Industrial (0.5 Maximum Floor Area Ratio [FAR¹]). Currently, this parcel is occupied by an asphalt and aggregate facility (Franklin Construction Inc, 2020). The NRRWF is surrounded by a stretch of land that extends 2,000 feet beyond the landfill perimeter zoned as Agriculture - 20 (20-acre minimum) and designated as Agriculture in the Butte County General Plan 2030. Most of this surrounding land is undeveloped.

Background

Beginning in the 1980s, California has enacted policies for reduction of solid waste through recycling requirements and incentive programs. The state's objectives through these policies is maximizing remaining landfill space, increasing the use of recycled materials, and ultimately reducing greenhouse gas emissions. In 1989, AB 989 passed which included establishment of waste diversion mandates. These mandates required each city or county plan to include an implementation schedule showing diversion of

¹ FAR is a measure of building intensity, and is defined as the ratio of a building's total floor area (gross floor area) to the size of the land parcel upon which it is built

25% of all solid waste from landfill or transformation facilities by January 1, 1995 and diversion of 50% of all solid waste by January 1, 2020 through source reduction, recycling, and composting activities.

AB 32, the Global Warming Solutions Act, was passed in 2006 to reduce greenhouse gas emissions all across the state. The legislation mandated a commercial recycling measure to require a commercial waste recycling rate of 75 percent by 2020. AB 341 was then signed into law to lay out a program for achieving these goals. This bill mandated businesses or multifamily dwellings that produced four cubic yards of waste per week to have recycling services, with every jurisdiction in the state required to have a waste recycling program and to generate an annual report of progress.

Most recently, California has turned to the issue of recycling organic waste material. Methane emissions resulting from the decomposition of organic waste in landfills are a significant source of greenhouse gas emissions contributing to global climate change. Organic materials, including waste that can be readily prevented, recycled, or composted, account for a significant portion of California's overall waste stream. According to the Environmental Protection Agency (EPA) municipal solid waste landfills are the third-largest source of human-related methane emissions in the United States, accounting for approximately 15.1 percent of these emissions in 2018 (EPA 2020). In 2014, Governor Brown signed AB 1826 into law which is focused on significantly reducing organic waste in landfills. In 2016, local jurisdictions were mandated to create organic waste recycling programs procedures to monitor their progress. Furthermore, in 2016 businesses and multi-family homes that generated more than eight cubic yards of organic waste were required to arrange for organic waste recycling services. By 2019 business and multi-family residential dwellings that consist of five or more units that generate four cubic yards of municipal solid waste were also required to have organic recycling services. By 2020, if the statewide disposal rate has not been reduced by up to 50 percent compared to 2014, the recycling requirements will expand to cover businesses that generate two cubic yards or more of commercial solid waste per week (CalRecycle 2020a).

In September 2016, Governor Brown signed into law SB 1383 (Lara, Chapter 395, Statutes of 2016), establishing methane emissions reduction targets in a statewide effort to reduce emissions of short-lived climate pollutants in various sectors of California's economy. The new law codifies the California Air Resources Board's Short-Lived Climate Pollutant Reduction Strategy, established pursuant to SB 605 (Lara, Chapter 523, Statutes of 2014), to achieve reductions in the statewide emissions of short-lived climate pollutants. SB 1383 establishes targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025. The law grants CalRecycle the regulatory authority required to achieve the organic waste disposal reduction targets and establishes an additional target that not less than 20 percent of currently disposed edible food is recovered for human consumption by 2025.

Existing Conditions

The NRRWF is owned by Butte County and operated by the Butte County Public Works Department, as an Enterprise Fund². The NRRWF has a permitted capacity of approximately 25.3 million cubic yards and a remaining capacity of 20.8 million cubic yards (CalRecycle 2020b). The facility is estimated to operate until 2048, accommodating 2.5% to 3.5% annual increases in solid waste due to anticipated growth in the City and Butte County. The maximum amount accepted daily at the NRRWF is 1,500 tons, although the daily amount rarely exceeds 1,200 tons. However, due to the 2018 Camp Fire, Butte County Public Works

² An enterprise fund is a self-supporting government fund that sells goods and services to the public for a fee.

submitted an Emergency Waiver of Standards to CalRecycle to facilitating the increase of maximum tonnage from 1,500 tons per day to 15,000 tons per day, as well as increased permitted traffic volume, transfer and processing capacity, and facility operating hours to expedite disposal of fire debris.

Project Components

In response to SB 1383, which requires 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025, the County is proposing to construct a covered aerated static pile (CASP) composting facility at the NRRWF located at 1023 Neal Road, Paradise, CA (see Figure 2, Neal Road Recycling and Waste Facility). The CASP is a composting system equipped with an oxygen controlled, positively aerated system and an oxygen and temperature monitoring device. This creates ideal composting conditions within the heap, while efficiently trapping odors and other emissions such as dust. Oxygen and temperature probes would be located in each compost heap and would be connected to a control unit.

The County has been awarded a grant by CalRecycle to assist with the construction of the CASP and the County anticipates that the CASP would be constructed during the third quarter of 2021. The CASP is anticipated to be located at the top deck of Module 4 and have a site life of approximately five to 10 years, at which time it is anticipated that the CASP operation would migrate to a different area of the NRRWF. At full buildout, the CASP would have a feedstock throughput of approximately 40,000 tons of organic waste per year and would produce approximately 40,000 cubic yards of compost per year (Butte County 2020b). Butte County anticipates building the CASP in two phases: Phase A and Phase B (see Figure 3, Project Site). Each phase would have a feedstock throughput of approximately half of the proposed total. The project is proposed to scale up as appropriate, depending on the reliability of feedstock. Feedstock is anticipated to be a mixture of food waste, green waste and composting “overs” (compost material that is larger than the finished product screen size). Material not moved into the covered composting operation within 48 hours (or within 7 days if approved by the LEA) will be disposed of in the landfill.

The compost phases are divided up into eight separate heap piles. Each pile measures 125'x 27' with 6' of separation. The heap piles function as described below:

- The first four heap piles are Phase I active processing. This phase is where the bulk of the composting activity would take place, along with the production of compost effluent. This phase lasts four weeks and would result in the compost volume reducing by approximately half the original feedstock amount.
- The second two heap piles are Phase II curing. This phase completes the active compost processing and would produce moderate amounts of compost effluent in a period of two weeks.
- The last two heap piles are Phase III finishing. This phase allows the compost temperature to cool and produces a mature compost product. This phase lasts two weeks and is anticipated to produce little if any compost effluent.

Compost would be loaded from the Phase III heap piles and transported from the composting area to a location determined by the County, outside of the landfill footprint. It is the County's intent to have the compost previously marketed for sale and the inventory removed from the site in real-time. However, in the absence of sales or due to weather delays, the material may remain in short-term storage.

CASP Design Information

Foundation

The foundation of the CASP would be constructed with on-site soil/gravel and would be placed, compacted, and graded on the existing top deck of Module 4. This pad would have approximately one foot of compacted fill placed over the existing interim cover surface of the top deck to provide an all-weather working compost pad surface. The permeability of this pad is unknown, but due to the overall thickness is anticipated to effectively minimize infiltration. The construction of this pad would prevent run-on³ from flowing onto the composting pad.

Aeration Pipes

Aeration pipes would be attached to the blower (which pushes air into the CASP) and installed on the ground surface prior to the addition of compost feedstock. At the end of each composting phase, the aeration pipes would be removed from the heap pile by attaching a chain to a drag connection point and pulling the pipes out of the heap pile. The pipes would be inspected for damage and cleaned and/or cleared as needed to ensure proper air flow and distribution. If a pipe is damaged or permanently clogged, the pipe would be replaced. Primary and secondary blower power will be switch controlled.

Stormwater Drainage

Construction of the composting pad would eliminate run-on from entering the composting area. The Phase I and Phase II compost phases would be covered with a waterproof processing cover exclusively designed for CASP use. Rainfall that falls on these covers would flow off the cover and flow between the heap piles off the composting pad. The cover would be anchored on all sides, preventing compost effluent from exiting and stormwater runoff from entering the heap pile. The run-off water can then be directed by drainage piping to a holding system for treatment, reuse or discharge. Phase III would not be covered and direct rainfall would likely be absorbed into the compost heap, and any effluent that generates from rainfall flowing through the compost heap would be collected in the effluent collection pipes, and ultimately in the effluent collection tank.

Differential Settlement

Over the operating life of the composting facility, some amount of the CASP foundation may settle in an uneven or differential fashion, which can lead to compost effluent ponding. The CASP foundation would be inspected for potential differential settlement on an annual basis, before the start of the rainy season, and, if necessary, surveyed to identify the location and amount of grading needed to ensure foundation stability.

Pipe and Electrical Service

All processing pipe would be placed on top of the compost pad grade. Leachate would be collected under the heaps by an aeration pipe system cast in concrete used both to deliver air to the composting process as well as act as a leachate collection and delivery mechanism. The leachate would be directed by drainage piping to a holding system for treatment, reuse or discharge. This system would be atop the compost pad grade and thus no trenches would be dug nor would power poles be drilled/installed. Electrical wiring would

³ Surface runoff from an external area that flows into the area of interest.

be run above grade on a cable rack. Power sources for the compost pad include solar power, back-up batteries, and a back-up generator.

Existing Groundwater Monitoring System

The current groundwater monitoring system consists of fourteen active monitoring wells. There are also four wells that are dry due to declining water levels. Groundwater samples are currently collected and analyzed quarterly at a state certified analytical laboratory. In addition to collecting water samples from the monitoring wells, other tasks including measuring the depth to water in each well; field measuring the pH, specific conductance, and water temperature; performing and documenting quality assurance and quality control procedures; and visually inspecting the wells to see that they are in proper working order, are performed for a typical quarterly monitoring event. Groundwater flow, flow direction, and gradient at the landfill are evaluated based on the water levels measured in the wells and using contour maps (Butte County 2020a).

The State Water Resources Control Board (SWRCB) enforces water quality and beneficial use protection requirements for composting operations, with specifications differing per tier level (SWRCB WQ 2015-0121-DWQ, General Waste Discharge Requirements for Composting Operations, Monitoring Requirements). Tiers include Tier I and Tier II. Allowable feedstocks for Tier I composting operations are limited to agricultural, green, paper, and vegetative food materials, as well as anaerobic liquid digestate⁴ derived from Tier I feedstocks. Tier I facilities receive, process, and store less than 25,000 cubic yards (cy) of allowable Tier I feedstocks, compost, additives, and amendments on site at any given time, and meet the percolation rate and depth to groundwater standards included in Finding 29, Table 3 of the SWRCB document. Tier II refers to composting operations that allow non-vegetative food materials, certain biosolids, manure, and anaerobic digestate derived from Tier II feedstocks (SWRCB 2015) as well as the allowable Tier I feedstocks. Tier II feedstocks receive, process and store 25,000 cy or more of feedstocks, compost, additives, and amendments on site at any given time, and do not meet the Tier I percolation rate and depth to groundwater standards mentioned above.

The proposed project would accept residential yard waste and pre-consumer food waste (i.e., vegetable trimmings). While these feedstocks would be classified as Tier I, the proposed project would use anaerobic digestate and would produce up to 40,000 cy of compost per year, thus the project would be a Tier II facility. In lieu of meeting the hydraulic conductivity specifications for Tier II working surfaces and drainage ditches, use on the existing landfill groundwater monitoring system is proposed as allowed under paragraph 3 of the Monitoring Requirements section of the State Water Resources Control Board WQ 2015-0121-DWQ, General Waste Discharge Requirements for Composting Operations, August 4, 2015.

Composting Operation Monitoring Requirements

The County anticipates that the CASP would be operated by an independent contractor with prior municipal composting experience and that has secure markets for the composting process end product. The selected operator will determine the exact details of the operation; however, the operation would be consistent with the requirements of State Water Resources Control Board Order WQ 2015-0121-DWQ, General Waste Discharge Requirements for Composting Operations, and any site-specific waste discharge requirements

⁴ Material remaining after the anaerobic digestion of a biodegradable feedstock. It consists of leftover indigestible material and dead microorganisms.

for the NRRWF. General procedures for CASP operations are portrayed in Figure 4, Compost Flow Chart, and are described below.

Feedstock Receiving

The ultimate purpose of the CASP is to annually process up to 40,000 tons of feedstock and produce up to 40,000 cubic yards of compost per year. Source material would include mixed loads of residential yard waste and commercial food waste. The County is working with local waste hauling companies to identify source material feedstock. Conceptually, the waste haulers would collect source-separated yard waste from residential accounts and from specific commercial accounts that pledge to source separate food waste (i.e., restaurant or institutional kitchen waste such as pre-consumer trimmings from vegetables or fruits). Post-consumer food waste, such as plate scrapings, napkins, utensils, and packaging wastes, would not be collected nor utilized in the process. The same trucks that collect source-separated residential yard waste would also collect source separated food waste from designated restaurants.

The feedstock load, containing a mix of yard waste and food waste, would enter the site through the NRRWF's main entrance. After weighing in and preliminary load checking at the scale house, the load would be directed to an offloading area on top of Module 4. The Module 4 unloading area would include up to one acre of surface area for vehicle unloading. Piles would be dispersed with equipment and human labor for secondary inspection before being positioned for grinding and mixing. Contaminated loads, such as those filled with litter or plastic, would be rejected, and directed for landfill disposal.

The County anticipates receiving up to ten loads of feedstock per day, or up to 140 tons per day, at full operation. The project, depending on the season, may receive fewer loads per week. The loads delivered to the CASP are assumed to otherwise be disposed of at the NRRWF as solid waste, and therefore would not increase the number of truck trips to the NRRWF.

The County may also utilize liquid digestate, sourced from North State Rendering (NSR), as process water. The usage of digestate will be evaluated as a potential nutrient and water source for the CASP.

Feedstock Processing

Initial feedstock processing would include grinding and mixing to reduce the feedstock into an optimal blend for composting. The process may utilize the use of wheel loaders, skid steers, haul trucks, grinders, and radial stackers. Prepared loads would be transported to heap piles for Phase I active composting. The operator would cover the feedstock pile, and after approximately one month, the piles would be loaded and placed for curing (Phase II). The pile would be covered and would remain in Phase II for about two weeks. After two weeks, the cover would be removed, and the pile repositioned for curing for Phase III. Phase III is anticipated to last another two weeks. Oxygen and temperature probes would be located in each compost heap and connected to a control unit. The total time required to process raw feed stock into a finished product is approximately eight weeks.

Finished Compost Storage

Upon completion of the curing process, the end product would be ready for off-site beneficial use. The County intends to have the compost marketed before completion of the feedstock processing, and the resulting inventory removed from the site soon after the completion of the composting process. However,

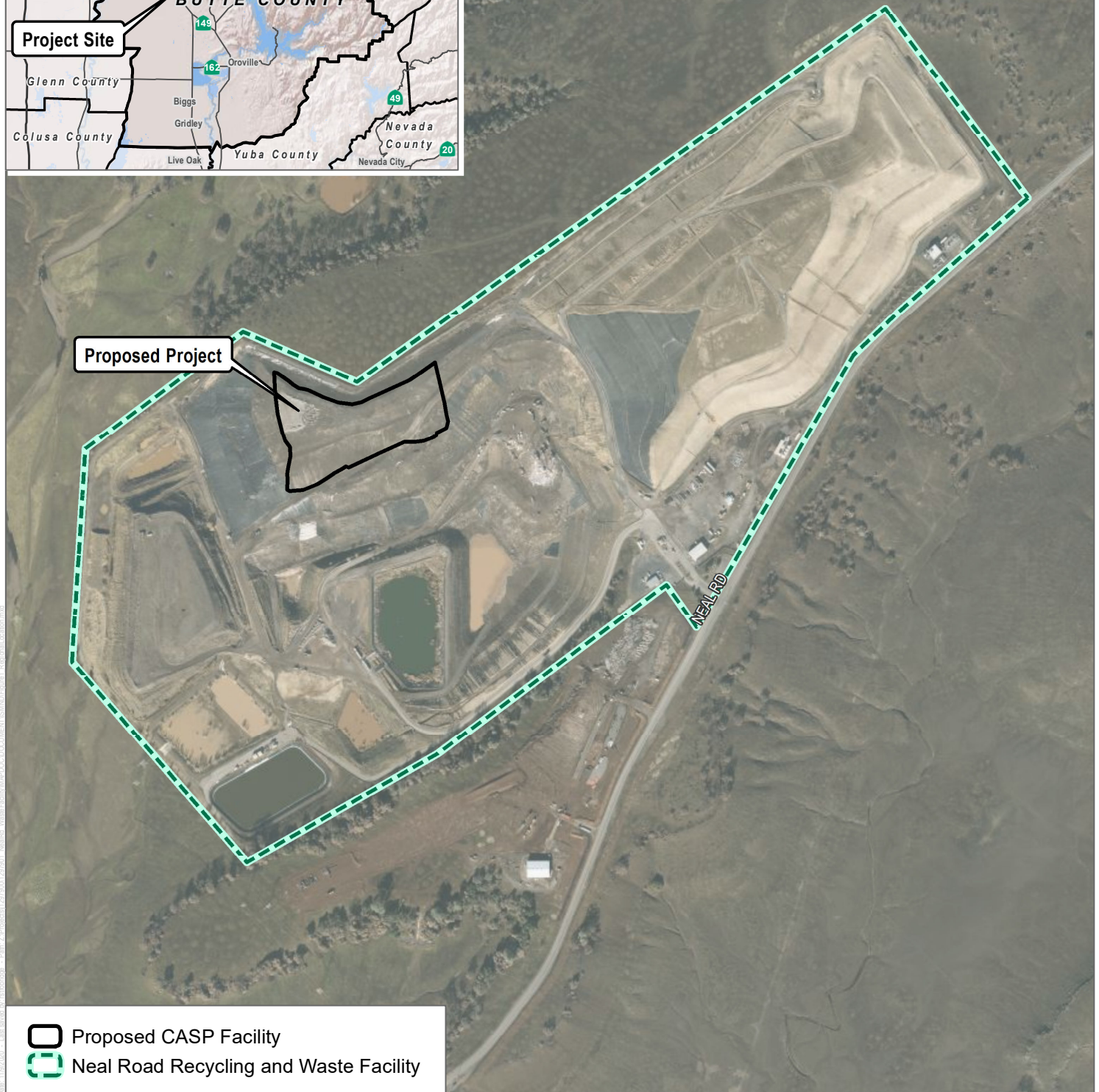
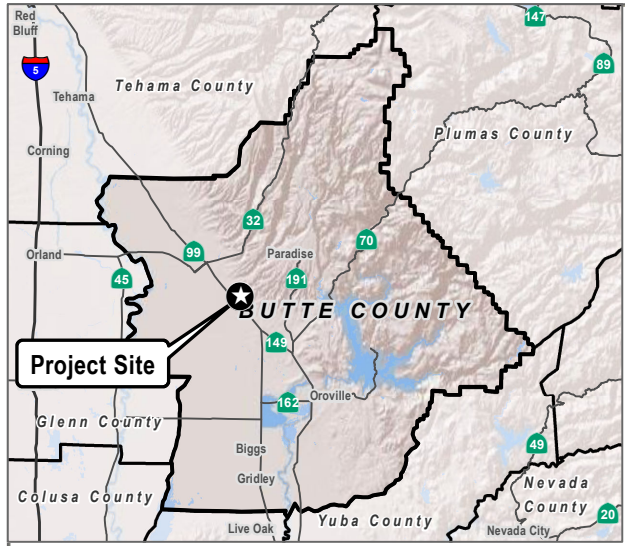
in the absence of sales contracts or upon weather delays, the County would work with the operator to temporarily store the compost product. In any event, the County does not envision long-term on-site storage of compost. Storage space is available on top of the existing soil stockpile, as shown in Figure 2, for the short-term (two weeks or less) until inventory is hauled off. In the worst-case scenario, the compost product would be used on-site as alternative daily cover⁵ until inventory levels become more manageable.

Schedule

Construction of Phase A is anticipated to begin in the third quarter of 2021 and take approximately 2 months. Phase B would be constructed approximately 4 months after Phase A and take approximately 2 months.

⁵ Material used as a daily cover at a landfill to control odors and to prevent blowing litter, fires, and scavenging.

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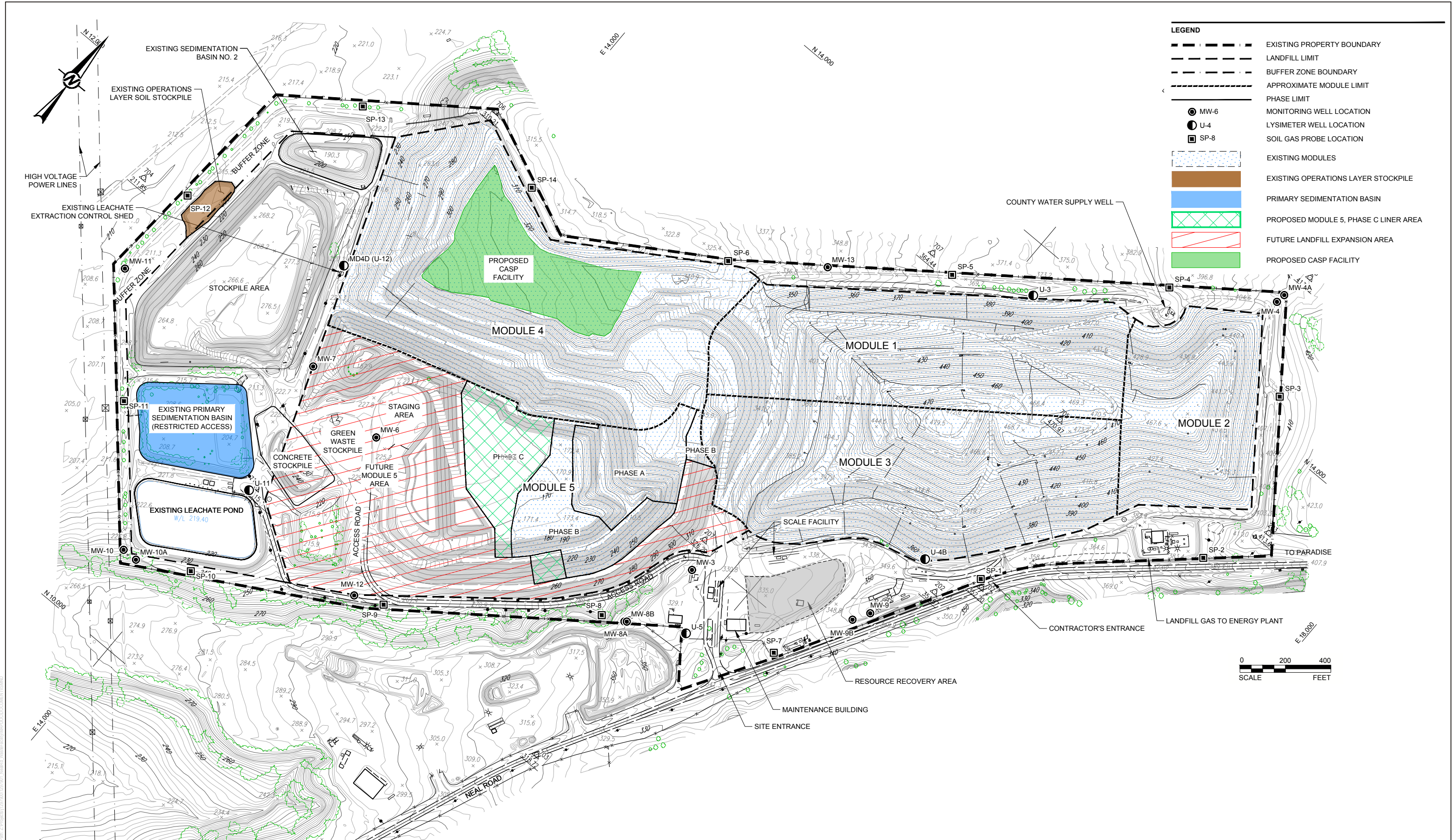
Proposed CASP Facility

Neal Road Recycling and Waste Facility

SOURCE: Bing Maps 2019, Butte County 2015

FIGURE 1
Project Location
 Neal Road Recycling and Waste Facility Composting Project

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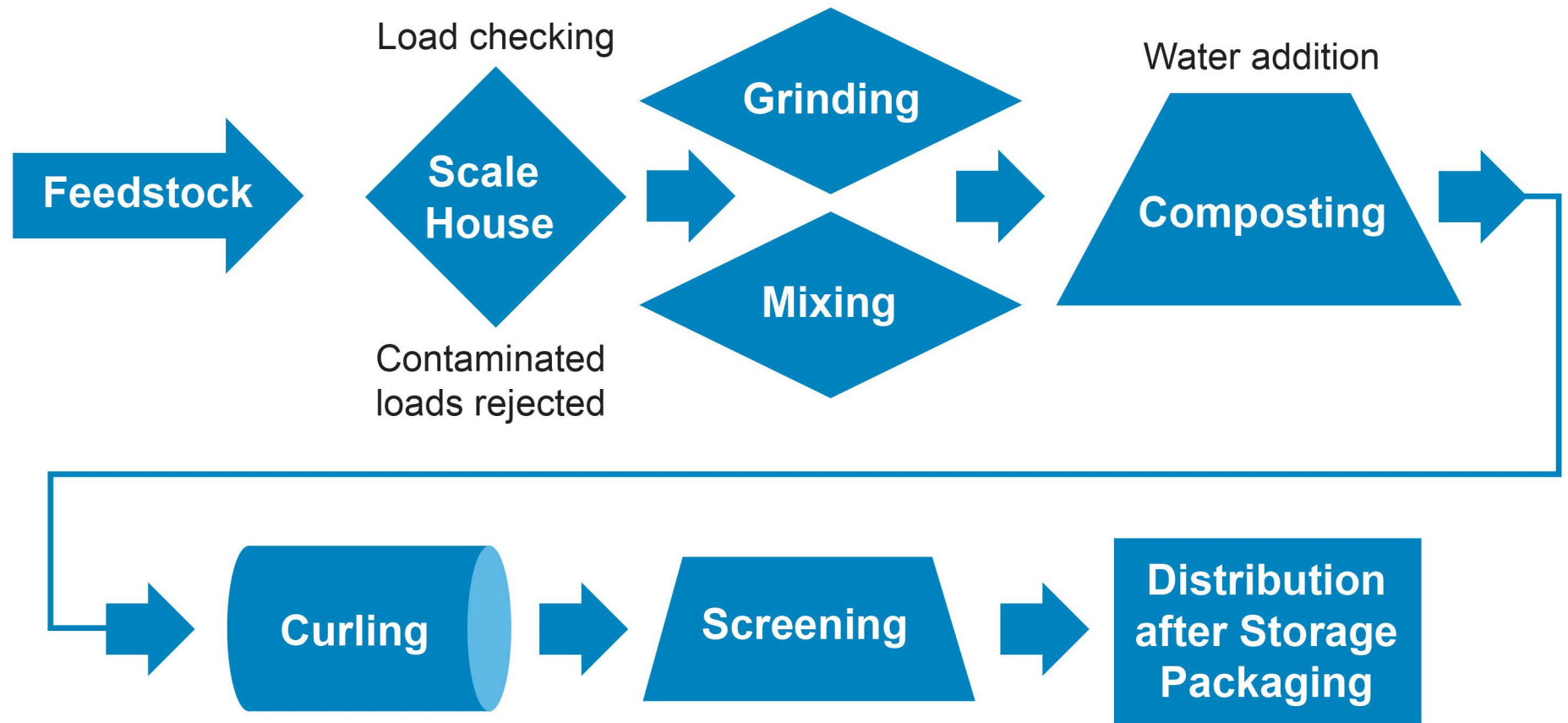
SOURCE: Golder Associates 2020

FIGURE 2
 Neal Road Recycling and Waste Facility
 Neal Road Recycling and Waste Facility Composting Project

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Simplified Compost Flow Chart



SOURCE: SWANA 2010

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Determination (To be completed by the Lead Agency)

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.

Signature

Date

Evaluation of Environmental Impacts

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

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

Scenic vistas are defined as an expansive view of highly valued landscape features (e.g., mountain range, lake, or coastline) observable from a publicly accessible vantage point. In the project vicinity, publicly accessible vantage points are limited to public roads (Neal Road and SR 99). As described in the Butte County General Plan, scenic vistas include views of land-based geological features such as the central buttes and Butte Creek Canyon, wildflower blooming areas, and views of water-based scenic areas including Sacramento River and Lake Oroville from highways that traverse its shores (Butte County 2019). The closest possible scenic view is that of Butte Creek Canyon, more than two miles north of the NRRWF.

The project would be constructed in the existing NRRWF. There are no scenic resources or unique natural features at or adjacent to the site. Due to distance, topography, and the existing built environment surrounding the site, no scenic vistas occur in the project area. Therefore, the project would have **no impact** on scenic vistas nor result in damage to scenic resources.

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

There are no scenic resources at the project site, including trees, rock outcroppings, or historic buildings. In addition, there are no state scenic highways near the project site, as identified by the California Scenic

Highway Mapping System (Caltrans 2011). Therefore, the project would not damage any scenic resources and there would be **no impact**.

- 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 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?*

The project site is located in a portion of unincorporated Butte County within an already developed solid waste and recycling facility. For the purposes of this analysis, a substantial degradation of the existing visual character or quality of the site would occur if the project would conflict with the underlying zoning or any other County regulations that govern scenic quality. The project site is designated and zoned as Public, with the Solid Waste Management Facility land use overlay and the Neal Road Recycling, Energy, and Waste Facility zoning overlay. The Public zoning and land use designation allows for major utilities and other public works facilities, and the overlays specifically promote compatible development around the NRRWF. The overlay zones ensure adequate separation between the NRRWF and land uses that are potentially incompatible with landfill activities. Thus, the proposed development of the site would be consistent with the underlying zoning and surrounding development. The project would not conflict with any of the County's goals and policies contained in the County's General Plan specific to ensuring future development maintains the County's scenic resources. Thus, the project would have **no impact** on visual character or quality of public views.

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

The project would not include any new light sources and would thus not create a new source of substantial light which would adversely affect day or nighttime views. Glare occurs when light is reflected off surfaces and causes a nuisance to surrounding sensitive-receptors, as defined by the CEQA Guidelines and the Butte County General Plan. Glare can result from sunlight or from artificial light reflecting off building exteriors, such as glass windows or other highly reflective surface materials. The project does not include any such components and there would be **no impact**.

Mitigation Measures

No mitigation measures are required.

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

- 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?***

The California Department of Conservation (DOC; DOC 2016a) has not identified the site as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The project site is designated as "Urban and Built-Up Land" by the DOC. Therefore, there would be **no impact** related to converting Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use.

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

The project site is zoned “Public” with the “Neal Road Recycling, Energy, and Waste Facility” overlay. The site is not planned for or used for any agricultural or forestry purposes and the proposed project would not conflict with a Williamson Act contract. Therefore, there would be **no impact** related to conflict of zoning or a Williamson Act Contract.

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 portion of the project site is considered forest land⁶ as defined in California Public Resources Code Section 12220(g). Timberland⁷ (as defined by California Public Resources Code Section 4526) or timberland-zoned timberland production⁸ (as defined by Section 51104(g) of the Government Code) is not present on site, nor are there any active or potential commercial timber operations present in the area. Therefore, the proposed project would not conflict with lands zoned for forest land, timberland, or timberland production and there would be **no impact**.

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

Refer to answer provided in ‘c’ above.

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?*

As described in sections “a” and “c” above, no farmland or forest land occurs on or adjacent to the project site. There would be **no impact**.

Mitigation Measures

No mitigation measures are required.

⁶ “Forest land” is land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

⁷ “Timberland” means land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis.

⁸ “Timberland production zone” or “TPZ” means an area, which is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses.

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

Environmental Setting

Butte County is located within the Sacramento Valley Air Basin (SVAB), comprising the northern half of California's 400-mile long Great Central Valley. The SVAB encompasses approximately 14,994 square miles with a largely flat valley floor (excepting the Sutter Buttes) about 200 miles long and up to 150 miles wide, bordered on its east, north and west by the Sierra Nevada, Cascade and Coast mountain ranges, respectively.

The SVAB, containing 11 counties and some two million people, is divided into two air quality planning areas based on the amount of pollutant transport from one area to the other and the level of emissions within each. Butte County is within the Northern Sacramento Valley Air Basin (NSVAB), which is composed of Butte, Colusa, Glenn, Shasta, Sutter, Tehama, and Yuba Counties.

Emissions from the urbanized portion of the basin (Sacramento, Yolo, Solano, and Placer Counties) dominate the emission inventory for the SVAB, and on-road motor vehicles are the primary source of emissions in the Sacramento metropolitan area. While pollutant concentrations have generally declined over the years, additional emission reductions will be needed to attain the State and national ambient air quality standards in the SVAB.

Seasonal weather patterns have a significant effect upon regional and local air quality. The Sacramento Valley and Butte County have a Mediterranean climate, characterized by hot, dry summers and cool, wet winters. Winter weather is governed by cyclonic storms from the North Pacific, while summer weather is typically subject to a high-pressure cell that deflects storms from the region.

In the County, winters are generally mild with daytime average temperatures in the low 50s and nighttime temperatures in the upper 30s. Temperatures range from an average January low of approximately 36 degrees

Fahrenheit (°F) to an average July high of approximately 96°F, although periodic lower and higher temperatures are common. Rainfall between October and May averages about 26 inches but varies considerably year to year. Heavy snowfall often occurs in the northeastern mountainous portion of the county. Periodic rainstorms contrast with occasional stagnant weather and thick ground or “tule” fog in the moister, flatter parts of the valley. Winter winds generally come from the south, although north winds also occur.

Diminished air quality within Butte County largely results from local air pollution sources, transport of pollutants into the area from the south, wildfire smoke, the NSVAB topography, prevailing wind patterns, and certain inversion conditions that differ with the season. During the summer, sinking air forms a “lid” over the region, confining pollution within a shallow layer near the ground that leads to photochemical smog and visibility problems. During winter nights, air near the ground cools while the air above remains relatively warm, resulting in little air movement and localized pollution “hot spots” near emission sources. Carbon monoxide, nitrogen oxides, particulate matter and lead particulate concentrations tend to elevate during winter inversion conditions when little air movement may persist for weeks.

As a result, high levels of particulate matter (primarily fine particulates or PM_{2.5}) and ground-level ozone are the pollutants of most concern to the NSVAB Districts. Ground-level ozone, the principal component of smog, forms when reactive organic gases (ROG) and nitrogen oxides (NO_x) – together known as ozone precursor pollutants – react in strong sunlight. Ozone levels tend to be highest in Butte County during late spring through early fall, when sunlight is strong and constant, and emissions of the precursor pollutants are highest.

The project is located in unincorporated Butte County (County), which is currently designated as a nonattainment area for state and national ozone (O₃) standards and state particulate matter equal to or less than 10 microns in aerodynamic diameter (PM₁₀) standards. The County is in attainment for all other criteria air pollutants.

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

The applicable air quality plan for the project area is the *Northern Sacramento Valley Planning Area 2015 Triennial Air Quality Attainment Plan*. In adopting this plan, Butte County Air Quality Management District (BCAQMD) assumes that growth within its jurisdiction will be in accordance with city and county general plans, for which air quality effects associated with build-out have been analyzed.

A project is deemed inconsistent with an air quality plan if it would result in population or employment growth that exceeds the growth estimates in the applicable air quality plan (i.e., generating emissions not accounted for in the applicable air quality plan emissions budget). Therefore, proposed projects need to be evaluated to determine whether they would generate population and employment growth and, if so, whether that growth would exceed the growth rate included in the applicable air quality plan.

For purposes of air quality attainment planning, BCAQMD assumes growth within its jurisdiction will be in accordance with city and county general plans. The proposed project would be within the footprint of the existing NRRWF. The project site is within a parcel spanning approximately 190 acres total, with 140 acres permitted for the disposal of solid waste. The Butte County General Plan 2030 designates the project site as Public with the Solid Waste Management Facility overlay (Butte County 2012). The site is zoned as Public with the Neal Road Recycling, Energy, and Waste Facility overlay (Butte County 2019). The NRRWF is an approved permitted use in the County’s designated Public zone (Butte County Code of Ordinances, Section 24-28). According to the County Code, the purpose of the Public zone is to allow for public and quasi-public facilities that serve Butte County residents and visitors. The proposed project would not result in population

or employment growth in the County. Furthermore, the proposed project's emissions would not exceed the BCAQMD thresholds as shown in Tables 3.3-3 through 3.3-5, below. The project is not anticipated to cause significant impacts to regional air quality or otherwise conflict with the basin's air quality management plan.

Based on the preceding considerations, the proposed project would result in a **less than significant** impact because it would not conflict with the region's air quality plans.

- 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?***

Thresholds of Significance

The proposed project would be located within the BCAQMD jurisdiction. The BCAQMD has adopted the CEQA Air Quality Handbook, which contains thresholds of significance used to assess air quality related impacts from construction and operations of a project. The quantitative air quality analysis provided herein applies the BCAQMD thresholds identified below to determine the potential for the proposed project to result in a significant air quality impact under CEQA (BCAQMD 2014). Project-related air quality impacts estimated in this environmental analysis would be considered significant if any of the applicable significance thresholds presented in Table 3.3-1 are exceeded.

Table 3.3-1. Butte County Air Quality Management District Air Quality Significance Thresholds

Criteria Pollutants Thresholds	
<i>Pollutant</i>	<i>Construction</i>
ROG	137 lbs/day or 4.5 tons/year
NO _x	137 lbs/day or 4.5 tons/year
PM < 10 microns (PM ₁₀ or smaller)	80 lbs/day
<i>Pollutant</i>	<i>Operational</i>
ROG	25 lbs/day
NO _x	25 lbs/day
PM	80 lbs/day
Toxic Air Contaminants	
<i>Pollutant</i>	<i>Threshold</i>
TACs	Maximum incremental cancer risk ≥ 10 in 1 million Chronic and acute hazard index ≥ 1.0 Hazard Index Ambient Diesel PM _{2.5} ≥ 0.3 ug/m ³ annual average

Notes: BCAQMD = Butte County Air Quality Management District; ROG = reactive organic gases; NO_x = oxides of nitrogen; PM = particulate matter; TAC = toxic air contaminant; lbs/day = pounds per day; ug/m³ = micrograms per cubic meter.

Source: BCAQMD 2014.

Construction

Construction of the proposed project would result in the temporary addition of pollutants to the local air shed caused by soil disturbance, fugitive dust emissions, and combustion pollutants from on-site construction equipment, as well as from off-site trucks hauling and from construction workers traveling to and from the site. Construction emissions were quantified using the California Emissions Estimator (CalEEMod) Version 2016.3.2. Construction emissions can vary substantially from day to day, depending

on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions. Therefore, an increment of day-to-day variability exists.

Construction scenario assumptions, including trip distances, were based on CalEEMod default values where project information was not available.

For purposes of estimating project emissions, it was assumed that construction of the proposed project would commence in March 2021⁹ and would last approximately 6 months, ending in August 2021. The electrical work construction phase would only require the use of small hand tools. The analysis contained herein is based on the following schedule assumptions (duration of phases is approximate):

- Site Preparation (March 2021 – April 2021): 22 days
- Grading (March 2021 – May 2021): 44 days
- Foundation Construction (April 2021– July 2021): 66 days
- Electrical Work (June 2021 – August 2021): 44 days

The estimated construction duration and construction equipment mix were provided by the facility operator. Detailed construction equipment modeling assumptions are provided in Appendix A. The grading phase would include grading of 8.5 acres and balanced cut and fill. Construction-worker, vendor truck, and haul truck trips by construction phase were based information provided by the facility operator. CalEEMod default trip length values were used for the distances for all construction-related trips.

The construction equipment mix and vehicle trips used for estimating the proposed project-generated construction emissions are shown in Table 3.3-2. For the analysis, it was generally assumed that heavy construction equipment would be operating at the site 5 days per week (22 days per month) during project construction.

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	Usage Hours
Site Preparation	8	2	20	Rubber Tired Dozers	3	8
				Tractors/Loaders/Backhoes	4	8
Grading	6	2	4	Excavators	2	8
				Graders	1	8
				Rubber Tired Dozers	1	8
				Scrapers	2	8
				Tractors/Loaders/Backhoes	2	8

⁹ The analysis assumes a construction start date of March 2021, which represents the earliest date construction would initiate. Assuming the earliest start date for construction represents the worst-case scenario for criteria air pollutant emissions because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

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	Usage Hours
Foundation Construction	12	2	0	Cranes	1	7
				Forklifts	3	8
				Generator Sets	1	8
				Tractors/Loaders/Backhoes	3	7
				Welders	1	8
Electrical Work	6	0	0	N/A	N/A	N/A

Note: See Appendix A for details.

To account for compliance with BCAQMD dust control best practices, it was assumed that the active sites would be watered at least twice daily, or as necessary depending on weather conditions, resulting in a 55% reduction in fugitive dust as implemented by CalEEMod, and that vehicle speeds on unpaved areas would be limited to 15 miles per hour.¹⁰ Predicted maximum daily and annual emissions for each construction year are presented in Tables 3.3-3 and 3.3-4 and compared to the BCAQMD significance thresholds.

Table 3.3-3. Daily Construction-Related Criteria Air Pollutant Emissions

Year	ROG (lbs/day)	NO _x (lbs/day)	CO (lbs/day)	SO ₂ (lbs/day)	PM ₁₀ Total (lbs/day)	PM _{2.5} Total (lbs/day)
2021	10.18	105.54	70.15	0.13	16.25	10.67
BCAQMD threshold (lbs/day)	137	137	NA	NA	80	NA
Exceedance of threshold?	No	No	NA	NA	No	NA

Source: See Appendix A for detailed results.

Notes: Values shown are the maximum summer or winter daily emissions results from CalEEMod. These estimates reflect implementation of BCAQMD fugitive dust best control practices. BCAQMD has adopted construction thresholds for ROG, NO_x, and PM₁₀. lbs/day = pounds per day; CO = carbon monoxide; NO_x = nitrogen oxides; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter; ROG = reactive organic gases; SO₂ = sulfur dioxide; NA = not applicable.

Table 3.3-4. Annual Construction-Related Criteria Air Pollutant Emissions

Year	ROG (tons/year)	NO _x (tons/year)	CO (tons/year)	SO ₂ (tons/year)	PM ₁₀ Total (tons/year)	PM _{2.5} Total (tons/year)
2021	0.21	2.13	1.53	<0.01	0.27	0.18
BCAQMD threshold (tons/year)	4.5	4.5	NA	NA	NA	NA

¹⁰ Dust control is identified in the current JTD.

Table 3.3-4. Annual Construction-Related Criteria Air Pollutant Emissions

Year	ROG (tons/year)	NO _x (tons/year)	CO (tons/year)	SO ₂ (tons/year)	PM ₁₀ Total (tons/year)	PM _{2.5} Total (tons/year)
<i>Exceedance of threshold?</i>	<i>No</i>	<i>No</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>

Source: See Appendix A for detailed results.

Notes: Values shown are the annual results from CalEEMod. These estimates reflect implementation of BCAQMD fugitive dust best control practices. BCAQMD has adopted annual construction thresholds for ROG and NO_x.

CO = carbon monoxide; NO_x = nitrogen oxides; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter; ROG = reactive organic gases; SO₂ = sulfur dioxide; NA = not applicable; <0.01 = reported value less than 0.01.

As shown in Tables 3.3-3 and 3.3-4, daily and annual construction emissions of ROG, NO_x and PM₁₀ would not exceed the applicable BCAQMD significance thresholds. Therefore, construction-related emissions of criteria air pollutant would be **less than significant**.

Operation

Existing Operational Emissions Sources

The proposed project would divert 150 tons per day of organics from landfill disposal to the CASP composting system. Thus, the existing landfill gas (LFG) fugitive emissions from diversion of the 150 tons per day of organics was estimated to present the net change in criteria air pollutant emissions. The Tajiguas Landfill LFG fugitive emission factor was used as a representative emission factor for the proposed project. The Tajiguas Landfill is located in Santa Barbara County and has a similar landfill profile as the proposed project, including approximately similar disposal acreage, maximum permitted waste capacity, and the same maximum permitted throughput of 1,500 tons of waste per day (CalRecycle 2019a, 2019b).

Mobile Emissions Sources

The proposed project would require delivery trucks to deliver feedstock to the CASP composting site; however, the project would not increase truck trips from existing operations. The proposed CASP composting operations would not increase the volume allowed onsite; furthermore, the project would be diverting organic waste away from the landfill disposal to the CASP composting operations. However, the proposed project would require up to four round-trip truck trips per day (8 one-way truck trips per day), or 1,440 round-trip truck trips per year (2,880 one-way truck trips per year), to export composted material from the project site. Because the composted material delivery locations are unknown at this time, the CalEEMod default haul truck trip length value of 20 miles was assumed.

Emergency Diesel Generator

The proposed project would operate a 300-horsepower Tier 4 Final emergency diesel-fueled generator. While use of the emergency diesel generator during an emergency is not included in the emissions inventory as they are speculative, emissions associated with testing and maintenance of the emergency diesel generator are included. The emergency diesel generator was assumed to be tested for 1 hour per day and 50 hours per year in accordance with CARB Airborne Toxic Control Measures (ATCMs). CalEEMod was used to estimate emissions from the emergency diesel generator testing and maintenance.

Material Handling

The proposed project would also require material handling equipment, including the addition of a front-end loader, excavator, skid steer, and a haul truck, and material handling operations, including chipping, grinding, and screening activities. Thus, criteria air pollutant emissions associated with material handling equipment and operations are included in this analysis. CalEEMod Version 2016.3.2 was used to estimate potential project-generated criteria air pollutant emissions from operation of the material handling equipment. Particulate matter is generated from material handling operations, including receiving, chipping and grinding, handling, screening, and storage activities, prior to the covered aerated static pile (CASP) composting activities. The material handling particulate matter emissions generated by the drop transfers are evaluated using the U.S. Environmental Protection Agency AP-42, Section 13.2.4, Aggregate Handling and Storage Piles, Table 13.2.4-1 (EPA 2006). The composting grinding activities were estimated using AP-42, Section 11.19.2, Crushed Stone Processing and Pulverized Mineral Processing, Table 11.19.2-2 (EPA 2004).

CASP Composting Method

The proposed project would be within the footprint of the existing NRRWF. The proposed CASP composting method contains the following new equipment:

- Aeration piping (on grade);
- 32 electric aeration blowers (2.5 kilowatts (kW) each or 80 kW total);
- One electric-powered GORE™ Cover winder machine (6 kW motor); and
- 24 GORE™ Geomembrane Compost Covers (GORE™ Cover).

The proposed project would redirect 150 tons per day of organic waste away from the landfill disposal to the proposed CASP composting system. The CASP composting process would be broken into three phases: the active phase, the curing phase, and the finishing phase. The active phase of the CASP composting system would be covered with a GORE™ Cover. The CASP would have a feedstock throughput of approximately 150 tons per day of organics waste. The feedstock is anticipated to be a mixture of food waste, green waste and composting “overs” (compost material that is larger than the finished product screen size) generated onsite. The food waste and green waste are currently received for disposal at the landfill.

According to the California Air Resources Board (CARB), composting is a source of ROGs (also known as volatile organic compounds (VOCs)), particulate matter (PM), and ammonia (NH₃). To date, BCAQMD has not developed rules or emission factors for organic waste composting activities.

The uncontrolled composting operation emission factors from the California Air Resources Board (CARB) Emissions Inventory Methodology for Composting Facilities (CARB 2015) were used, which was developed with the assistance and review from the Bay Area Air Quality Management District (AQMD), Imperial County Air Pollution Control District (APCD), Sacramento Metropolitan AQMD, San Joaquin Valley APCD, San Luis Obispo County APCD, Santa Barbara County APCD, Shasta County AQMD, South Coast AQMD, Ventura County APCD, and Yolo-Solano AQMD. The uncontrolled composting ROG and NH₃ emission factors assume a combination of green waste and up to 15% of food waste, which is appropriate to be used to estimate the proposed project’s emissions (CARB 2015).

The San Joaquin Valley Air Pollution Control District (SJVAPCD) recognized the GORE™ Cover technology as capable of meeting the 80% reduction required in SJVAPCD Rule 4565 and Rule 4566. SJVAPCD

determined that the “GORE™ Cover is capable of satisfying SJVAPCD Best Achievable Control Technology (BACT) Guideline 6.4.7 (Co-Composting and Biosolids) with an overall capture and control efficiency of greater than or equal to 80% for VOC emissions.” W.L. Gore & Associates submitted emissions data from four facilities for SJVAPCD review. The average ROG emission reduction from the four facilities was 95.1% compared to the SCAQMD uncontrolled emission factors, and similar NH₃ emission reductions from organic waste (e.g., food waste and green waste) were observed at the composting facilities (Gore 2011).

In addition, the GORE™ Cover successfully satisfied compliance testing according to the South Coast AQMD Rule 1133.3, which requires an 80% by weight reduction in ROG and NH₃ emissions when compared to uncontrolled windrow composting (SCAQMD 2011).

The proposed project would divert 150 tons per day of organics from landfill disposal to the CASP composting system. The net estimated emissions assumes a minimum control efficiency of 80% for the proposed CASP composting operations. The net emission from diverting 150 tons per day of organic waste from the landfill disposal and into the CASP composting operation are summarized in Table 3.3-5.

Table 3.3-5. Daily Net Operation-Related Criteria Air Pollutant Emissions

Source	ROG (lbs/day)	NO _x (lbs/day)	CO (lbs/day)	SO ₂ (lbs/day)	PM ₁₀ Total (lbs/day)	PM _{2.5} Total (lbs/day)
CASP Composting	107.40	0.00	0.00	0.00	0.00	0.00
Material Handling	1.10	10.32	10.53	0.02	1.81	0.63
Mobile	0.22	7.58	1.15	0.02	0.53	0.17
Emergency Generator	0.05	0.10	0.84	<0.01	<0.01	<0.01
Total	108.77	17.99	12.52	0.05	2.35	0.80
Diverted Green Waste & Food Waste	156.00	0.00	0.00	0.00	0.00	0.00
Net	(47.23)	17.99	12.52	0.05	2.35	0.80
<i>BCAQMD threshold (lbs/day)</i>	25	25	NA	NA	80	NA
<i>Exceedance of threshold?</i>	No	No	NA	NA	No	NA

Source: See Appendix A for detailed results.

Notes: Negative values reported in parenthesis.

lbs/day = pounds per day; CO = carbon monoxide; NO_x = nitrogen oxides; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter; ROG = reactive organic gases; SO₂ = sulfur dioxide; NA = not applicable; <0.01 = value reported less than 0.01.

As shown in Table 3.3-5, daily operational emissions of ROG, NO_x and PM₁₀ would not exceed the applicable BCAQMD significance thresholds. ROG emissions would be reduced compared to existing operations. Emissions of other criteria air pollutants would increase, but none would exceed BCAQMD thresholds. Therefore, operation-related emissions of criteria air pollutant would be **less than significant**.

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

Toxic Air Contaminants

Toxic air contaminants (TACs) are defined as substances that may cause or contribute to an increase in deaths or in serious illness, or that may pose a present or potential hazard to human health. During project

construction, DPM would be the primary TAC emitted from diesel-fueled equipment and trucks. 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 (Cal. Code Regs., tit. 13, chapter 9, § 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 5 minutes; electric auxiliary power units should be used whenever possible (Cal. Code Regs., tit. 13, chapter 10, § 2485).

The construction and operation of the CASP system would not be located within 1,000 feet from existing sensitive receptors. The nearest sensitive receptors (i.e., residences) are located approximately 5,500 feet southwest of the project site. Thus, the proposed project would not place a new TAC-producing land use activity adjacent to existing sensitive receptors. In addition, the proposed project would not include siting of new sensitive receptors.

DPM emissions would be emitted from off-road equipment operations and heavy-duty trucks during project construction activities. Off-road construction equipment and commercial trucks are subject to CARB ATCMs to reduce DPM emissions. According to the Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 30-year exposure period for the maximally exposed individual resident; however, such assessments should also be limited to the period/duration of activities associated with the project. Total project construction is anticipated to occur over a temporary period of 6 months, much less than the 30-year exposure period. Thus, it is anticipated the proposed project would not result in exposure of sensitive receptors to substantial TAC concentrations during short-term construction and impacts would be less than significant.

The proposed project would not result in a long-term operational increase in vehicular emissions. The project would include operation of off-road equipment and one emergency diesel generator. The off-road equipment would be subject to CARB's Regulation for In-Use Off-Road Diesel Vehicles to reduce DPM and criteria pollutant emissions, and the emergency diesel generator is a stationary source that would be required to be permitted through BCAQMD and comply with applicable rules and regulations. The proposed CASP composting operations would generate NH₃ emissions; however, the GORE™ Cover is capable of achieving a minimum of 80% reduction in NH₃ emissions when compared to uncontrolled windrow composting. In addition, the diversion of 150 tons per day, or 40,000 tons per year, of organic waste from the landfill disposal would result in a decrease in TAC emissions generated by LFG fugitive emissions. Furthermore, the closest off-site sensitive receptors are located a substantial distance from the property at approximately 5,500 feet southwest of the project site. Therefore, it is anticipated the proposed project would not result in exposure of sensitive receptors to substantial TAC concentrations during long-term operations and impacts would be **less than significant**.

Health Effects of Carbon Monoxide

Mobile source impacts occur on two scales of motion. Regionally, proposed project-related travel would contribute to regional trip generation and increase the total VMT within the local airshed and the SVAB. Locally, project generated traffic would be added to the County's roadway system near the project site. If such traffic 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 carbon monoxide (CO) hotspots in the area immediately around points of congested traffic. Because of continued improvement in vehicular emissions technology at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SVAB is steadily decreasing.

Projects contributing to adverse traffic impacts may result in the formation of CO hotspots. Construction activities associated with the proposed project would be temporary and would not be considered a source of daily, long-term mobile-source emissions. The proposed project would require delivery trucks to deliver feedstock to the CASP composting site; however, the project would not increase truck trips from existing operations. The proposed CASP composting operations would not increase the volume allowed onsite; furthermore, the project would be diverting organic waste away from the landfill disposal to the CASP composting operations. However, the proposed project would require up to three round-trip truck trips per day (6 one-way truck trips per day) to export composted material from the project site. The proposed project’s minimal increase in daily truck trips would not substantially increase CO emissions. Therefore, the proposed project would result in a **less-than-significant** impact to air quality with regard to potential CO hotspots.

Health Effects of Criteria Air Pollutants

As demonstrated above, construction of the proposed project and net operational emissions from diverting 150 tons per day of organic waste from the landfill disposal would not result in emissions that exceed the BCAQMD significance thresholds for any criteria air pollutants, as shown in Tables 3.3-3 through 3.3-5.

ROG and NO_x are precursors to O₃, for which the County is designated as nonattainment with respect to the NAAQS and CAAQS. The health effects associated with O₃ are generally associated with reduced lung function. The contribution of ROG and NO_x to regional ambient O₃ concentrations is the result of complex photochemistry. The increases in O₃ concentrations in the SVAB due to O₃ 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 O₃ concentrations would also depend on the time of year that the precursor emissions would occur because exceedances of the O₃ AAQS tend to occur between April and October when solar radiation is highest. The holistic effect of a single project’s emissions of O₃ precursors is speculative due to the lack of quantitative methods to assess this impact. As discussed previously, ROG and NO_x emissions associated with construction and operation would be less than significant.

Health impacts that result from NO₂ and NO_x include respiratory irritation. The proposed project’s construction and operation would generate NO_x emissions that would not exceed the operational BCAQMD mass daily thresholds; therefore, construction and operation of the proposed project would not contribute to exceedances of the NAAQS and CAAQS for NO₂ although the SVAB is designated as in attainment of the NAAQS and CAAQS for NO₂ and the existing NO₂ concentrations in the area. Therefore, potential health impacts associated with NO₂ and NO_x are considered less than significant.

The associated potential for CO hotspots were discussed previously and are determined to be a less-than-significant impact. Thus, the proposed project’s CO emissions would not contribute to significant health effects associated with this pollutant.

Construction and operation of the proposed project would not exceed the BCAQMD threshold for both PM₁₀ and PM_{2.5}. As such the proposed project would not contribute to exceedances of the NAAQS and CAAQS for

particulate matter or obstruct the SVAB from coming into attainment for these pollutants. Thus, the associated health impacts are considered **less than significant**.

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

The occurrence and severity of potential odor impacts depends on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the receiving location. Although offensive odors seldom cause physical harm, they can be annoying and cause distress among the public and generate citizen complaints. BCAQMD Rule 200, Nuisance, prohibits discharge of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health, or safety of any such persons or the public.

Odors would be potentially generated from vehicles and equipment exhaust emissions during proposed project construction. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment. Such odors would be short-term and cease upon completion of construction, disperse rapidly from the proposed project sites, and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be less than significant.

Typical sources of substantial operational odors include landfills, rendering plants, chemical plants, agricultural uses, wastewater treatment plants, and refineries which are not applicable to this project. The proposed CASP composting operations would not increase the volume allowed onsite; furthermore, the project would be diverting 150 tons per day of organic waste away from the landfill disposal to the CASP composting operations. The proposed project would be within the footprint of the existing NRRWF. The CASP is anticipated to be located at the top deck of Module 4 and have a site life of approximately five to 10 years, at which time it is anticipated that the CASP operation would migrate to a different area of the NRRWF. However, the CASP operations would not be located within 1,000 feet from existing sensitive receptors. The nearest sensitive receptors (i.e., residences) are located approximately 5,500 feet southwest of the project site. Thus, the proposed project would not place a new odor-producing land use activity adjacent to existing sensitive receptors. In addition, the proposed project would not include siting of new sensitive receptors.

The proposed project would implement the odor control with the GORE™ Cover. The degradation of organic material could lead to the production of odor-causing compounds, specifically NH₃. NH₃ also serves as a reasonable indicator of the magnitude of the total odor generated by the composting operation. Thus, the lower measured NH₃ concentration, the lower the detectability of the overall odor generated from the composting process. However, the proposed project would utilize CASP composting technology, which has a Statewide track record in reducing emissions and odors, protecting water quality, and producing a quality compost product (Gore 2011). CASP composting system has demonstrated significant odor (and emissions) reductions when compared to windrow composting. SCAQMD has accepted the CASP composting technology to meet the SCAQMD Rule 1133.3 80% reduction in NH₃ emissions when compared to uncontrolled windrow composting.

The *Odor Evaluation of an Organic Composting Trial using the GORE™ Cover System* studied the ability of the GORE™ Cover process to treat food and reduce odor emissions. Air samples were collected and

analyzed for NH₃ and odor strength from above and below the GORE™ Cover over an 11-week period. The study examined both aerated and non-aerated covered piles. The study considered the “below-cover” data as a conservative representation of a positively aerated static pile system without cover, thus, treating the same material under the same operating conditions. The results of the study showed that the GORE™ Cover significantly reduced NH₃ emissions to the atmosphere, particularly during the active phase. Specifically, the concentration of NH₃ was measured at an average of 19.1 parts per million (ppm) below the GORE™ Cover, representing the positively aerated static pile system without cover, and the concentration of NH₃ was measured at an average of 2.5 ppm above the GORE™ Cover, indicating that the GORE™ Cover achieved an 87% net reduction in NH₃ concentrations (CH2MHill 2008).

The study also analyzed samples for odor strength using an industry-standard quantification system, which showed that after 3 weeks, odor levels begin to decrease as the material becomes more degraded and stabilized. The highest level of odor strength below-cover was quantified at 12,000 “odor units” from the second week of the study, while the above-cover level was 2,400 odor units. This indicates that the GORE™ Cover was able to achieve a reduction of 80% odor units at the peak odor level. The average above-cover, 2,700 odor units, and below-cover, 1,200 odor units, indicated a study-wide odor reduction of 56% (CH2MHill 2008).

The study was able to show that the GORE™ Cover is effective at containing a large portion of odors generated from the composting of organic waste, particularly NH₃. When compared to a positively ventilated aerated static pile system equivalent without cover, the GORE™ Cover was able to achieve an 87% overall reduction of NH₃, and a 56-80% reduction of odor units over the course of the 11-week study (CH2MHill 2008).

The proposed CASP composting operations would not increase the volume allowed onsite; furthermore, the project would be diverting 150 tons per day of organic waste away from the landfill disposal to the CASP composting operations. The proposed project would be within the footprint of the existing NRRWF. As shown in the *Odor Evaluation of an Organic Composting Trial using the GORE™ Cover System* study, the CASP composting technology and use of the GORE™ Cover would reduce potential odorous impacts. In addition, the CASP operations would not be located within 1,000 feet from existing sensitive receptors. The nearest sensitive receptors (i.e., residences) are located approximately 5,500 feet southwest of the project site. Furthermore, the proposed project would be required to prepare an Odor Impact Minimization Plan (OIMP) as a condition of the permit application that identifies the potential sources of odor and management techniques to minimize odors. In accordance with 14 CCR 17863.4, the proposed project would be required to monitor and minimize odors, and to identify in advance the mitigation measures that would be taken if initial minimization measures to prove ineffective. The organic composting operation would be subject to ongoing internal and regulatory inspections. The OIMP sets forth operating procedures for minimizing odors and an odor complaint response protocol. Thus, operation of the proposed project would not result in odors that would affect a substantial number of people and this impact would be **less than significant**.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The project site is located within the existing NRRWF. The land surrounding the NRRWF is rural and largely undeveloped. Module 4, the proposed CASP facility site consists of leveled, unvegetated dirt with portions of gravel and concrete slurry. Module 4 was previously used as an active landfill area for debris from the 2018 Camp Fire. The Camp Fire burned to the northern boundary of the site. Module 4 abuts annual grassland to the north with apparent Mima mounds. The mounds are characteristic of vernal pool grasslands, which provide potential habitat for vernal pool branchiopods listed under the federal Endangered Species Act. North of that grassland area are

valley oak (*Quercus lobata*) and cottonwood (*Populus fremonti*) trees, which may provide nesting habitat for raptors and other bird species. Approximately 900 feet south of Module 4, there is a preserved riparian habitat area with sparse cottonwood trees.

A Dudek Biologist conducted a review of available literature relating to the biological resources on the project site. The literature review included a query of the nine USGS-quads surrounding the project site in the California Natural Diversity Database (CNDDB), which found a total of 22 special-status wildlife species and 28 special-status plant species that occur within that query area. During the site visit on October 6th, 2020 by a Dudek Biologist, no special-status species were observed on site and potential habitat for special-status wildlife and plant species was not found within the proposed CASP facility site. The Dudek biologist observed or inferred presence of raccoon (*Procyon lotor*), spotted towhee (*Pipilo maculatus*), mourning dove (*Zenaida macroura*), gull (*Larus* sp.), western meadowlark (*Sturnella neglecta*), turkey vulture (*Cathartes aura*), American crow (*Corvus brachyrhynchos*), and Brewer's blackbird (*Euphagus cyanocephalus*). Vegetation documented during the site visit included valley oak and cottonwood trees and common weedy species such as salt grass (*Distichlis spicata*), black mustard (*Brassica nigra*), wild oat (*Avena fatua*), annual rabbitsfoot grass (*Polypogon monspeliensis*), yellow star-thistle (*Centaurea solstitialis*), puncturevine (*Tribulus terrestris*), medusahead (*Elymus caput-medusae*), salt heliotrope (*Heliotropium curassavicum*), and asthmaweed (*Erigeron bonariensis*).

The project site is located within the plan area of the Butte Regional Conservation Plan (BRCP). The BRCP proposes a regional approach to conservation and regulation in Butte County, including standardized avoidance and minimization measures and creation of a fee on covered activities that would allow for coordinated habitat conservation and mitigation. The draft BRCP was submitted to the USFWS, NMFS, and CDFW in June of 2019 for final inspection and publication in the federal register. The BRCP will need to be approved by the County and participating cities, prior to application to the USFWS and CDFW for permits. The timing for approvals is uncertain, and until that approval and issuance of permits the BRCP is not implemented.

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?*

No special-status species were observed during the site visit, and the proposed CASP area within the existing Module 4 does not provide potential habitat for any special-status species. Valley oak and cottonwood trees are approximately 300 feet north of the northern project site boundary, and may provide suitable nesting habitat for avian species protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGF). Though these trees have the potential to be nesting habitat for avian species, disturbance from the construction of the CASP facility would likely be no greater than ambient ongoing landfill activities and would not occur near the trees. Baseline conditions from landfill activities within Module 4 include medium to high noise disruption during daytime work hours. Though burrowing owls (*Athene cunicularia*) have a low potential to forage within the vernal pool grasslands immediately adjacent to the project site, they are not expected to be impacted due to the small size of Module 4, the minimal change to baseline disturbance levels, and the extensive foraging habitat in the project vicinity. Tricolored blackbirds (*Agelaius tricolor*) have potential to nest in the mitigation land approximately 1,400 feet south of the CASP project area, but if present would not be impacted by CASP construction activities due to the distance and baseline disturbance levels. Project activities would have a **less than significant impact**.

- 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?*

Riparian and oak woodland habitat is not present on or adjacent to the CASP project site. There would be **no impact** from project activities on these habitats.

- 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?*

Wetlands and potential vernal pools are not present on the CASP project site, and those that are present north of Module 4 have no hydrological connection to the CASP project site. There would be **no impact** from construction or operation of the project on these habitats.

- 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?*

Wildlife corridors are routes for wildlife to use when traveling between undisturbed habitat areas. Wildlife corridors provide shelter and sufficient food for wildlife and generally consist of riparian, woodland, or forested habitat. The project site is within an existing fenced area that prevents wildlife from utilizing the project site as a wildlife corridor. The project site may facilitate movement of resident wildlife species including birds, small mammals, and other wildlife. The creek on the southern portion of the NRRWF has been altered and does not provide suitable fish habitat therefore project activities would not impact resident or migratory fish.

The construction of the CASP facility would have **no impact** on the movement of resident or migratory fish or wildlife species.

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

The Butte County General Plan COS-P7.7 requires fencing to be installed around sensitive resources on or adjacent to the construction. There are no sensitive resources within Module 4 where the CASP project would be constructed and operated, and potential sensitive habitats north of the project are hydrologically separated and experience baseline levels of disturbance as great or greater than those that would occur during construction and operation of the project. Therefore, fencing for sensitive resources is not required. Butte County General Plan COS-P7.9 requires a biologist to conduct construction monitoring in and adjacent to habitat for special status species. Based on the lack of protected species habitat and the existing level of disturbance at Module 4, the project would not require monitoring. The construction and operation of the CASP facility would have **no impact** related to conflicts with local policies or ordinances protecting 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?**

As previously mentioned, the proposed project is located in the BRCP area. Because the BRCP is not yet adopted and is unlikely to be adopted prior to project implementation, there is no potential for the development of the CASP facility to conflict with the plan. No other approved local, regional or state Habitat Conservation Plan (HCP) or Natural Community Conservation Plans (NCCP) exist or are planned in the project vicinity. Therefore, the project would have **no impact** related to conflicts with such a plan.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The project site is located in Township 21 North, Range 2 East, and Sections 14 and 15 within the Hamlin Canyon, CA U.S. Geological Survey 7.5-minute quadrangles. Dudek prepared a Cultural Resources Inventory Report for the project (included as Appendix E). The inventory included a records search of the project area (and a half-mile buffer) at the Northeast Information Center, review of historic maps and aerial photographs, a Sacred Lands File search from the Native American Native Heritage, and an intensive pedestrian survey conducted by a Dudek archaeologist.

The only archaeological site previously identified within the NRRWF consists of a small habitation site and rockshelter (P-04-001561). This resource consists of a small prehistoric occupation site with midden soils and lithics situated within and outside of a low overhanging volcanic lava cap escarpment. The project site straddles the boundary of the NRRWF approximately 60 meters east of the proposed project site. The site was recorded and tested in 2000, at which time a 2-m-x-2-m test unit was excavated to a maximum depth of 60 cm below surface. The recovered assemblage included projectile points, flaked and ground stone tools, debitage, other artifacts, and a small faunal assemblage, all of which are consistent with interpretation of P-04-001561 as a prehistoric occupation.

Historic aerial photographs, available from 1947 to 2016, and historic maps, available from 1912 to 2018, were inspected to observe previous development in the project site (NETR 2020). These maps and images display the Project area as undeveloped open land up to the late 1990s and early 2000s, with the development/expansion of the NRRWF into the project site by 2005.

Results of the Sacred Lands File search were negative.

No archaeological artifacts or features were identified during the pedestrian survey, conducted on November 16, 2020. The previously recorded site, P-04-001561, was relocated and found to be in the same condition as described in the site record and previous reports although a wire fence, which serves to distinguish the boundary of the NRRWF, does intersect the site boundary. The project site is located approximately 60 meters west and up a substantial slope from the recorded site, making it very unlikely that the site would be accidentally impacted by the current project.

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

No historic resources were identified within the project site. There would be **no impact**.

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

An archaeological site (P-04-001561), is located 60 meters east of the proposed project site, The APE is located approximately 60 meters west and up a substantial slope from the site, making it very unlikely that the site would be accidentally impacted by the project. This impact would be **less than significant**.

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

The project site is located on disturbed ground previously used as a landfill waste management unit (Module 4). The project would not impact undisturbed ground, and thus there would be **no impact** related to human remains.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- 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?*

The short-term construction and long-term operation of the proposed project would require the consumption of energy resources in several forms at the project site and within the project area. Construction and operational energy consumption are evaluated in detail below.

Electricity

Construction Use

Temporary electric power for as-necessary lighting would be provided by Pacific Gas & Electric Company (PG&E). The electricity used for such activities would be temporary and would have a negligible contribution to the project's overall energy consumption.

Operational Use

Operation of the GORE™ Cover technology would be required to control reactive organic gas emissions, ammonia emissions, and odors generated by the composting activities. Furthermore, operation of the covered aerated static pile (CASP) composting system would divert up to 150 tons per day of organics from landfill disposal, thus, reducing greenhouse gas emissions and providing a soil-enhancing resource. Operation of the electric-powered aeration blowers and GORE™ Cover winder machine would consume 753,360 kilowatt-hours (kWh) of electricity per year.

The total electricity usage in PG&E's service area in 2019 was 78,072 million kWh (CEC 2019). The proposed project, in the context of the energy availability and consumption within PG&E's service area, would result in a minimal increase in electricity consumption. Impacts related to operational electricity use would be less than significant.

Natural Gas

Construction Use

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 below under the "petroleum" subsection. Any minor amounts of natural gas that may be consumed during project construction would have a negligible contribution to the project's overall energy consumption.

Operational Use

The proposed project would not result in increased natural gas use during operations since the proposed project would divert up to 150 tons per day of organics from landfill disposal to the CASP composting system.

Petroleum

Construction Use

Heavy-duty construction equipment associated with construction activities would rely on diesel fuel, as would haul and vendor trucks involved in delivery of materials to the project site. 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 to and from the site in gasoline-powered light-duty vehicles.

Heavy-duty construction equipment of various types would be used during each phase of project construction. Appendix C lists the assumed equipment usage for each phase of construction. The project's construction equipment is estimated to operate a total combined 8,712 hours based on information from the applicant and the California Emissions Estimator (CalEEMod) Version 2016.3.2 defaults assumptions where project information was not available.

Fuel consumption from construction equipment was estimated by converting the total carbon dioxide (CO₂) emissions from each construction phase to gallons using the conversion factors for CO₂ to gallons of gasoline or diesel. The conversion factor for gasoline is 8.78 kilograms per metric ton CO₂ per gallon, and the conversion factor for diesel is 10.21 kilograms per metric ton CO₂ per gallon (The Climate Registry 2020). The estimated diesel fuel usage from construction equipment is shown in Table 3.6-1.

Table 3.6-1. Construction Equipment Diesel Demand

Phase	Pieces of Equipment	Equipment CO ₂ (MT)	Kg CO ₂ /Gallon	Gallons
Site Preparation	7	40.12	10.21	3,929.76
Grading	8	122.61	10.21	12,009.17
Foundation Construction	9	76.44	10.21	7,486.80
Electrical Work	0	0.00	10.21	0.00
Total				23,425.72

Sources: Pieces of equipment and equipment CO₂ (Appendix C); kg CO₂/Gallon (The Climate Registry 2020).

Notes: CO₂ = carbon dioxide; MT = metric ton; kg = kilogram.

See Appendix C.

Fuel estimates for total worker vehicles, vendor trucks, and haul trucks fuel consumption are provided in Table 3.6-2.

Table 3.6-2. Construction Worker, Vendor, and Haul Truck Petroleum Demand

Phase	Trips	Vehicle MT CO ₂	Kg CO ₂ /Gallon	Gallons
Worker Vehicles (Gasoline)				
Site Preparation	192	0.78	8.78	88.59
Grading	270	1.09	8.78	124.58
Foundation Construction	792	3.21	8.78	365.44
Electrical Work	264	1.07	8.78	121.81
Total				700.42

Table 3.6-2. Construction Worker, Vendor, and Haul Truck Petroleum Demand

Phase	Trips	Vehicle MT CO ₂	Kg CO ₂ / Gallon	Gallons
Vendor Trucks (Diesel)				
Site Preparation	48	0.88	10.21	85.87
Grading	90	1.64	10.21	161.00
Foundation Construction	132	2.41	10.21	236.13
Electrical Work	0	0.00	10.21	0.00
Total				483.00
Haul Trucks (Diesel)				
Site Preparation	20	0.77	10.21	75.18
Grading	4	0.15	10.21	15.03
Foundation Construction	0	0.00	10.21	0.00
Electrical Work	0	0.00	10.21	0.00
Total				90.22

Sources: Trips and vehicle CO₂ (Appendix C); kg CO₂/Gallon (The Climate Registry 2020).

Notes: MT = metric ton; CO₂ = carbon dioxide; kg = kilogram.

See Appendix C.

In summary, construction of the project is conservatively anticipated to consume 700 gallons of gasoline and 23,999 gallons of diesel, for a total of 24,699 gallons of petroleum over a period of approximately 6 months. For comparison, approximately 28.7 billion gallons of petroleum are consumed in California annually (EIA 2020). Also, for comparison, countywide total petroleum use by vehicles is expected to be 7.1 million gallons per year in 2021 (CARB 2020). The project would be required to comply with the California Air Resources Board's (CARB's) Airborne Toxics Control Measure, which restricts heavy-duty diesel vehicle idling time to 5 minutes, which would minimize fuel consumption. While construction activities would consume petroleum-based fuels, consumption of such resources would be temporary and would cease upon the completion of construction. Overall, because petroleum use during construction would be temporary, and would not be wasteful or inefficient, impacts would be less than significant.

Operational Use

The proposed project would operate a 300-horsepower Tier 4 Final emergency diesel-fueled generator. While use of the emergency diesel generator during an emergency is not included in the petroleum use inventory as they are speculative, petroleum use associated with testing and maintenance of the emergency diesel generator are included. The emergency diesel generator was assumed to be tested for 1 hour per day and 50 hours per year in accordance with CARB Airborne Toxic Control Measures (ATCMs). Operation of the emergency diesel-fueled generator is anticipated to consume 373 gallons of diesel per year.

The proposed project would require delivery trucks to deliver feedstock to the CASP composting site; however, the project would not increase truck trips from existing operations. The proposed CASP composting operations would not increase the volume allowed onsite; furthermore, the project would be diverting organic waste away from the landfill disposal to the CASP composting operations. Although, the proposed project would require up to four round-trip truck trips per day (8 one-way truck trips per day), or 1,440 round-trip truck trips per year (2,880 one-way truck trips per year), to export composted material from the project site. The haul trucks are assumed to be diesel fueled; therefore, diesel fuel consumption

associated with haul trucks traveling to and from the project site would consume an estimated 10,827 gallons per year. As such, implementation of the proposed project would lead to an increase in 11,200 gallons of diesel per year.

As discussed above, for disclosure, by comparison, approximately 28.7 billion gallons of petroleum are consumed in California annually (EIA 2020) and countywide total petroleum use by vehicles is expected to be 7.1 million gallons per year in 2021 (CARB 2020). The project would be required to comply with CARB's Airborne Toxics Control Measure, which restricts heavy-duty diesel vehicle idling time to 5 minutes, which would minimize fuel consumption. Furthermore, diverting 150 tons per day of organic waste from the landfill would reduce greenhouse gas emissions and provide a soil-enhancing resource. Given these considerations, the petroleum consumption associated with the proposed project would not be considered inefficient or wasteful, and 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?

The proposed project would support the County's Climate Action Plan (CAP) Measure W2 by diverting up to 150 tons per day of organic waste from the landfill. The proposed project would support the County's General Plan Goal PUB-11, increase recycling among Butte County residents, businesses, and public agencies. The proposed project would further support policies PUB-P11.1, the County shall meet or exceed State waste diversion requirements; PUB-P11.2, construction sites shall provide for the salvage, reuse, or recycling of construction and demolition materials; and action PUB-A11.1, continue to implement and expand the County's action program to achieve more aggressive recycling goals, including recycling of construction materials (Butte County 2012). The proposed project would support CARB's 2017 *Climate Change Scoping Plan Update* Measure RW-3 by increasing composting and diverting organics from landfill disposal (CARB 2017b). The proposed project would divert organic waste from the landfill, reduce GHG emissions, and comply with Assembly Bill 32, which mandates the reduction of GHG emissions. Thus, impacts would be **less than significant**.

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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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.***

The project is not located within an Alquist-Priolo Earthquake Fault Zone. The closest Holocene-active fault to the facility is the Cleveland Hill Fault, located approximately 19.4 miles to the southeast, at the closest point. As such, no active fault segments traverse the NRRWF and there is no evidence that fault rupture could occur on the site. Furthermore, construction and operation of the project would not directly or indirectly cause fault rupture or exacerbate existing fault rupture risks. For these reasons, the project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving surface rupture of a known earthquake fault, and **no impact** would occur.

ii) ***Strong seismic ground shaking?***

Butte County is relatively free from significant seismic and geologic hazards. There are, however, faults within the region that have the potential to cause strong seismic ground shaking, including the Holocene-

active Cleveland Hill Fault, located approximately 19.4 miles southeast. However, the construction and operation of the project would not exacerbate seismic ground shaking. Additionally, the project does not include any habitable structures or components that would exacerbate the risk of loss, injury, or death involving seismic ground shaking events. Thus, impacts would be **less than significant**.

iii) Seismic-related ground failure, including liquefaction?

As previously discussed, the project site is in an area that may be subject to future seismic ground shaking events. However, the project would not exacerbate the potential for seismic activity to occur and therefore would not directly or indirectly cause potential adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction. Therefore, the seismic-related impacts during construction and operation of the project would be **less than significant**.

iv) Landslides?

There are no known landslides on or near the project site. Based on the gently sloping topography, the potential for slope instability and landslides is low. In addition, the project would not exacerbate the potential for landslides to occur and therefore would not directly or indirectly cause potential adverse effects, including the risk of loss, injury, or death involving landslides. Therefore, landslide-related impacts during construction and operation of the project would be **less than significant**.

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

As stated in the project description, Butte County Public Works would be required to implement erosion control measures during construction, stipulated in a SWPPP pursuant to Order 2014-0057-DWQ, NPDES General Permit for Storm Water Discharges Associated with Industrial Activities, Order NPDES No. CAS000001 (industrial general permit). Landfills are covered by this industrial general permit and are thus required to develop a site-specific SWPPP demonstrating compliance with its requirements (SWRCB 2015). According to the 2020 Joint Technical Document for the NRRWF, a SWPPP and monitoring program is currently in effect at the facility. The SWPPP erosion control measures include berms to control stormwater, downdrains to convey runoff down landfill slopes, usage of straw wattles and silt fencing, and temporary basins to provide additional sediment control for runoff from the facility. The SWPPP would be modified to include information and best management practices specific to the proposed composting operation. Separation of storm water for the proposed composting operation would be achieved by physically covering the organic material with the GORE™ Cover sealed to the ground. Whereas the rain or snow is carried away as run off across the GORE™ Cover; the GORE™ Cover is impermeable to liquids, comparable to a hard paved surface. The run-off water can then be directed by drainage piping to a holding system for treatment, reuse, or discharge. Compliance with the best management practices described in the SWPPP would ensure that soil erosion or the loss of topsoil would be **less than significant**.

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?

As previously discussed, the project site is on gently sloping topography and landslide risk is low. Development associated with the proposed project would not require large groundwater withdrawal, exacerbating the potential for subsidence to occur (see Section 3.10, Hydrology and Water Quality regarding

groundwater withdrawals). In addition, the project would not exacerbate the potential for seismic activity, subsidence, or collapse to occur. Therefore, impacts related to unstable soils during construction and operation of the proposed project would be **less than significant**.

- 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?***

Linear extensibility is used to determine the shrink-swell, or expansion potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. The proposed composting site is underlain by Doemill-Jokerst and Clearhayes-Hamslough soils, and "Dumps, landfill" land as classified by the NRCS. Doemill-Jokerst soils are composed of gravelly and cobbly loam, while Clearhayes-Hamslough soils are composed of sandy clay loam, clay, and similar soils. Based on the weighted average of all soil layers, the Doemill-Jokerst soils have a rating of 1.9 percent and the Clearhayes-Hamslough soils have a rating of 2.1 percent. The dump/landfill land does not have a linear extensibility rating, as this land includes the components of a landfill including the trash, drainage, and liner system compacted with dense clay to prevent seeping liquids from the trash. Per the low linear extensibility ratings of on-site soils, the project would not be located on expansive soil that would pose direct or indirect risks to life or property. Impacts would be **less than significant**.

- 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?***

The project would not result in the development or use of any septic or wastewater treatment systems. **No impacts** would occur.

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

The proposed project would occur entirely on a previously disturbed landfill area. **No impacts** to paleontological resources would occur.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

A greenhouse gas (GHG) is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. As defined in California Health and Safety Code Section 38505(g), for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include CO₂, methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃) (see also 14 CCR 15364.5).¹¹ Some GHGs, such as CO₂, CH₄, and N₂O, are emitted into the atmosphere through natural processes and human activities. Of these gases, CO₂ and CH₄ are emitted in the greatest quantities from human activities. Manufactured GHGs have a much greater heat-absorption potential than CO₂ and include fluorinated gases, such as HFCs, PFCs, and SF₆, which are associated with certain industrial products and processes.

Gases in the atmosphere can contribute to climate change both directly and indirectly. Direct effects occur when the gas itself absorbs radiation. Indirect radiative forcing occurs when chemical transformations of the substance produce other GHGs, when a gas influences the atmospheric lifetimes of other gases, and/or when a gas affects atmospheric processes that alter the radiative balance of the Earth (e.g., affect cloud formation or albedo) (EPA 2017). The Intergovernmental Panel on Climate Change developed the global warming potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP of a GHG is defined as the ratio of the time-integrated radiative forcing from the instantaneous release of 1 kilogram of a trace substance relative to that of 1 kilogram of a reference gas (IPCC 2014). The reference gas used is CO₂; therefore, GWP-weighted emissions are measured in metric tons (MT) of CO₂ equivalent (CO₂e).

The current version of the California Emissions Estimator (CalEEMod) Version 2016.3.2 assumes that the GWP for CH₄ is 25 (so emissions of 1 MT of CH₄ are equivalent to emissions of 25 MT of CO₂), and the GWP for N₂O is 298. The GWP values identified in CalEEMod were applied to the project.

Under the California Environmental Quality Act (CEQA), "the determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data."¹² CEQA grants agencies with the general authority to adopt criteria for determining whether a given impact is "significant."¹³ When no guidance exists under CEQA, the agency may look to and assess general compliance with comparable regulatory schemes.

The County's Climate Action Plan (CAP) was adopted on February 25, 2014. The County's CAP provides goals, policies, and programs to reduce GHG emissions, address climate change adaptation, and improve quality of life in the County. The Butte County CAP also supports statewide GHG emission-reduction goals identified in Assembly Bill 32 and Senate Bill 375. Programs and actions in the CAP are intended to help the County sustain its natural resources, grow efficiently, ensure long-term resiliency to a changing environmental and economic climate, and improve transportation. The County CAP also serves as a Qualified GHG Reduction Strategy under CEQA, simplifying development review for new projects that are consistent with the CAP.

A 2006 baseline GHG emission inventory was prepared for unincorporated Butte County. The inventory identified the sources and the amount of GHG emissions produced in the county. The leading contributors of GHG emissions in the County are agriculture (43%), transportation (29%), and residential energy (17%). The County CAP provides a

¹¹ Climate-forcing substances include GHGs and other substances, such as black carbon and aerosols. This discussion focuses on the seven GHGs identified in California Health and Safety Code Section 38505.

¹² CEQA Guidelines Section 15064(b).

¹³ See Cal. Pub. Resources Code Section 21082.

framework for the County to reduce GHG emissions while simplifying the review process for new development. Measures and actions identified in the CAP lay the groundwork to achieve the adopted General Plan goals related to climate change, including reducing GHG emissions to 1990 levels by 2020.

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

New projects are evaluated to determine consistency with the CAP and to identify which GHG emission reduction measures would be implemented with project approval. The County's CAP is not qualified post-2020 and the project would be operational in 2021; therefore, the project's consistency with the County's CAP and the project's construction and operational GHG emissions are included for informational purposes.

Construction

The analysis of GHG emissions uses the same methodology and assumptions as the analysis of air quality impacts in Section 3.3, Air Quality. Construction of the proposed project would result in GHG emissions, which are primarily associated with use of off-road construction equipment, vendor and haul trucks, and worker vehicles. CalEEMod was used to calculate the annual GHG emissions. A detailed depiction of the construction schedule—including information regarding phasing, equipment utilized during each phase, trucks, and worker vehicles—is included in Appendix A. The estimated project-generated GHG emissions from construction activities are shown in Table 3.8-1.

Table 3.8-1. Estimated Annual Construction Greenhouse Gas Emissions

	CO ₂	CH ₄	N ₂ O	CO ₂ e
Year	<i>metric tons per year</i>			
2021	251.18	0.07	0.00	252.97

Notes: See Appendix A for detailed results.

MT = metric tons; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent.

As shown in Table 3.8-1, the estimated total GHG emissions from the construction scenario would be approximately 253 MT CO₂e. Estimated project-generated construction emissions amortized over 30 years would be approximately 8 MT CO₂e per year (BAAQMD 2009). Because there is no separate GHG threshold for construction, the evaluation of significance is discussed in the operational emissions analysis in the following text.

Operation

As discussed under Section 3.3., Air Quality, operation of the proposed project would generate GHG emissions through material handling equipment and CASP composting operations. Notably, additional mobile sources for delivery of feedstock to the landfill were not included since the proposed project would redirect up to 40,000 tons per year of organic waste away from the landfill disposal to the proposed CASP composting system and would not result in increased vehicle trips. Although, the proposed project would require up to four round-trip truck trips per day (8 one-way truck trips per day), or 1,440 round-trip truck trips per year (2,880 one-way truck trips per year), to export composted material from the project site.

CalEEMod default energy intensity factors (CO₂, CH₄, and N₂O mass emissions per kilowatt-hour) for PG&E is based on the value for Pacific Gas & Electric Company's (PG&E's) energy mix in 2008. Senate Bill X1-2 established a target of 33% from renewable energy sources for all electricity providers in California by 2020, and Senate Bill 350 calls for further development of renewable energy, with a target of 50% by 2030. The CO₂ emissions intensity factor for utility energy use in 2021 (first full year of proposed project operations) in CalEEMod was adjusted to PG&E's 2018 reported factor (PG&E 2020). Operation of the electric-powered aeration blowers and GORE™ Cover winder machine would consume 753,360 kilowatt-hours of electricity per year.

Using CARB's *Method for Estimating Greenhouse Gas Emission Reductions from Diversion of Organic Waste from Landfills to Compost Facilities*, the project's Compost Emission Reduction Factor (CERF) is 0.56 MT CO₂e reduced per ton of green waste and food waste (mixed organics) diverted. The CERF accounts for the avoided emissions from the landfill, the decrease in soil erosion, and the decrease in fertilizer and herbicide use, plus the increase from composting CH₄ and N₂O fugitive emissions (CARB 2017a). The estimated reduction in project-generated GHG emissions from diverting up to 440,000 tons per year of organic waste from the landfill to the proposed CASP composting operation are shown in Table 3.8-2.

Table 3.8-2. Estimated Net Annual Operational Greenhouse Gas Emissions

Source	CO ₂	CH ₄	N ₂ O	CO ₂ e
	<i>metric tons per year</i>			
CERF GHG Emission Reduction	-	-	-	(22,400)
Material Handling	268.87	0.09	0.00	271.04
Mobile	110.54	0.01	0.00	110.75
Electricity Use	70.39	0.01	<0.01	71.25
Emergency Generator	3.81	<0.01	0.00	3.82
<i>30-year Amortized Construction Emissions</i>				8.43
Net GHG Emissions				(21,934.71)

Notes: See Appendix A for detailed results.

<0.01 = value less than reported 0.01 metric tons per year.

MT = metric tons; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent.

As shown in Table 3.8-2, estimated net annual operational GHG emissions including amortized project construction would be approximately a reduction of 21,935 MT CO₂e per year. As shown the project-generated GHG emissions from diverting up to 40,000 tons per year of organic waste to the CASP composting operation would be less than the existing landfill emissions. Although the proposed project is not considered a typical development project, the project's consistency with the County's CAP is evaluated below in Section 3.8 b). The proposed project would support the County's CAP Measure W2 and County's General Plan goals, policies, and actions by supporting diversion of organic waste and reducing GHG emissions and thus comply with Assembly Bill 32. Thus, there would be no impact related to GHG emissions.

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

Adopted on February 25, 2014, the County's CAP outlines a number of measures to reduce GHG emissions in the County, including Measure W2, Adopt a Countywide solid waste diversion rate target of 75%, consistent with State policy. An action under Measure W2 is to support local facilities and programs that

result in additional diversion of organic waste. Although the proposed project is not a development project, the project's consistency with the County's CAP Checklist is included in Appendix B.

The proposed project would support the County's General Plan Goal PUB-11, increase recycling among Butte County residents, businesses, and public agencies. The proposed project would further support policies PUB-P11.1, The County shall meet or exceed State waste diversion requirements, PUB-P11.2, construction sites shall provide for the salvage, reuse, or recycling of construction and demolition materials, and action PUB-A11.1, continue to implement and expand the County's action program to achieve more aggressive recycling goals, including recycling of construction materials (Butte County 2012). The proposed project would support CARB's *2017 Climate Change Scoping Plan Update* Measure RW-3 by increasing composting and diverting organics from landfill disposal (CARB 2017b).

The proposed project would support the County's CAP Measure W2, the County's General Plan goals, policies, and actions, and CARB's *2017 Climate Change Scoping Plan Update* by diverting organic waste from the landfill and reducing GHG emissions and comply with Assembly Bill 32, which mandates the reduction of GHG emissions. The proposed project would support CARB's *2017 Climate Change Scoping Plan Update* Measure RW-3 by increasing composting and diverting organics from landfill disposal. Furthermore, as shown above under Section 3.8 a), the estimated reduction in project-generated GHG emissions from diverting up to 40,000 tons per year of organic waste from the landfill to the proposed CASP composting operation would result in a net reduction 21,935 MT CO₂e per year. There would be **no impact** to applicable plans.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

The proposed project would result in a composting operation which would generate leachate from the composting process. This leachate would be collected and reused in the composting operation. Leachate would be collected under the heaps by an aeration pipe system above the compost pad grade. The leachate would be directed by drainage piping to a holding system for treatment, reuse or discharge. Heavy construction equipment used in the composting operation would be properly maintained so that there are no major spills or leaks of diesel fuel, oil or other fluids used in the standard operation of the heavy construction equipment that would be used at the composting operation. A spill response plan would be implemented in compliance with NPDES requirements. The existing hazardous waste exclusion and load-checking program for the NRRWF would also be used for the proposed composting operation. Loads are inspected both at the fee booth and during unloading. If any hazardous materials are discovered in loads at the fee booth, the hauler would be turned away from the landfill and provided with information regarding acceptable hazardous waste disposal facilities. Any hazardous wastes that are discovered after unloading, if safe to handle, would be stored at the temporary hazardous waste storage area at the landfill, before being transported off-site by a certified hazardous waste hauler for proper disposal. As stated previously, the NRRWF has submitted a Business Plan for hazardous material storage and currently has a SPCC Plan for aboveground storage of petroleum. The NRRWF is not proposing any significant increases to hazardous material or petroleum storage that would require updates since they will be utilizing existing hazardous materials and petroleum at the facility. Thus, the project's impact related to transport, use, or disposal of hazardous materials would be **less than significant**.

- 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?*

See the discussion in (a) above. Impacts would be **less than significant**.

- 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?*

The proposed project would be located within the NRRWF site boundary. The NRRWF is located within a relatively remote location. The proposed project would not be located within one-quarter mile of an existing or proposed school. **No impacts** would occur.

- 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?*

The proposed project be located within the NRRWF site boundary. The NRRWF is not on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. **No impacts** would occur.

- 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?*

The NRRWF site is not located within an airport land use plan area or within two miles of an airport. The project site is located approximately 8.0 miles from Ranchoero Airport and 6.5 miles from Paradise Airport. **No impacts** would occur.

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

The proposed project would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. The proposed project would be located at the NRRWF which is in a relatively remote location. Access to and from the NRRWF is via SR 99. During an emergency, such as a regional fire, the compost facility would not result in a significant increase in vehicles exiting the landfill that would interfere or impede nearby resident vehicles that may be attempting to leave the area. Thus, impacts would be **less than significant**.

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

Per the General Plan, the NRRWF site is not located within an area designated as a high fire hazard area. The project would be located on the active NRRWF that is completely disturbed. There would be no native vegetation located in close proximity to the unloaded green waste, the windrows, curing piles or finished compost storage areas. The potential for the compost piles to generate fires would be minimized by the implementation of proper compost operation practices such as maintaining the proper moisture content in the compost piles, turning the compost piles at the correct frequency, monitoring the temperature inside the compost piles, ensuring that the compost piles do not exceed the required height, width and length dimensions, maintaining proper spacing between the compost piles and ensuring proper access for fire-

fighting equipment. In the event that a compost pile does catch on fire, the fire would be immediately put out by the loaders at the composting operation. The proposed project would therefore not expose people or structures, either directly or indirectly, to a significant risk or loss, injury or death involving wildland fires. Impacts would be **less than significant**.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on or off site;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

As stated in the project description and Section 3.7, Geology and Soils, Butte County Public Works would be required to implement erosion control measures during construction, stipulated in a SWPPP pursuant to Order 2014-0057-DWQ, National Pollutant Discharge Elimination System NPDES General Permit for Storm Water Discharges Associated with Industrial Activities, Order NPDES No. CAS000001 (industrial general permit). Landfills are covered by this industrial general permit and are thus required to develop a site-specific SWPPP demonstrating compliance with its requirements (SWRCB 2015). According to the 2020 Joint Technical Document for the NRRWF, a SWPPP and monitoring program is currently in effect at the facility. The SWPPP includes an evaluation of drainage controls for the facility and the management of stormwater run-on and run-off, and a plan to regrade site surface drainage to avoid polluted stormwater flow into nearby water bodies, among other drainage and erosion control measures. Specific erosion and sediment controls described in the SWPPP include berms to control stormwater, downdrains to convey runoff down landfill slopes, usage of straw wattles and silt fencing, and temporary basins to provide additional sediment control for runoff from the facility.

Separation of storm water would be achieved by physically covering the organic material with the GORE™ Cover, which would be sealed to the ground. Whereas the rain or snow would be carried away as run off across the GORE™ Cover; the GORE™ Cover is impermeable to liquids, comparable to a hard paved surface. The run-off water would then be directed through drainage piping to prevent degradation of water quality. Leachate would also be collected under the compost heaps through an aeration pipe system above the compost grade pad and would be directed by drainage piping to a holding system for treatment, reuse or discharge. During storm events, leachate and runoff that has come into contact with green waste and compost must be properly conveyed and captured. Compacted soil/gravel would be placed over the entire landfill area where the composting would occur so that there would be no impacts to the underlying waste prism. The design of the proposed composting operation must account for the underlying refuse and comply with any landfill-related regulations. The NRRWF must fully contain all surface water runoff and leachate resulting from the composting operation. Collected surface water runoff and leachate would be captured on-site from the composting operation and reused within the composting operation. Collected surface water runoff and leachate would not be discharged to the landfill storm water drainage system. The existing SWPPP for the NRRWF would be modified in order to include these management practices specific to the proposed composting operation. With the incorporation of these design features, the proposed composting operation would not generate polluted runoff to off-site storm water drainage systems, nor would the composting operation degrade ground or surface water quality. The proposed project would not result in the violation of any water quality standards or waste discharge requirements. In addition, to ensure that the proposed composting operation would not substantially degrade water quality or provide substantial additional sources of polluted runoff to existing drainage, the NRRWF would continue to implement best management practices included in the SWPPP. Thus, impacts would be **less than significant**.

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?*

The project does not involve any grading or construction. The proposed project involves no drilling or deep grading and would not result in the depletion of groundwater supplies and would not interfere with groundwater recharge. **No impacts** would occur.

- 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;***
 - ii) ***substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;***
 - iii) ***create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or***
 - iv) ***impede or redirect flood flows?***

While the proposed project would result in changing the existing drainage pattern within the Module 4 area of the NRRWF, this would not result in a substantial alteration of the existing drainage pattern of the site or area. At the proposed project site, the project would redirect storm flows that are currently being directed to the landfill surface water collection system to a drainage trench that is described above. The project would not result in a substantial increase in the rate or amount of surface water runoff. All surface water flows at the project would be conveyed by berms to the drainage trench, collected, and then reused at the composting operation. The project would not result in substantial erosion or siltation on- or off-site. The project would not result in the alteration of the course of a stream or river. The project site is not located within a 100- or 500-year flood zone (Zone X) as designated by the Federal Emergency Management Agency. The proposed project would not expose people or structures to flooding risks. In addition, the NRRWF site is not located within a dam inundation area. There would be **no impact**.

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

The NRRWF site is not within any flood hazard, tsunami, or seiche zones. The proposed project would not result in any impacts associated with seiche, tsunami or mudflow. There would be **no impact**.

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

The proposed project would not result in the obstruction of any water quality control plan or sustainable groundwater management plan. As described above, the facility incorporates existing measures to protect surface and water quality, with which the proposed project must comply. In addition, the facility has 14 groundwater monitoring wells in addition to a surface water monitoring program. The project would result in a change in drainage to address stormwater runoff from the composting site, but as described in this section and Section 3.9, Hazards, the project would not have an adverse effect on water quality. Project impacts would be **less than significant**.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) Would the project physically divide an established community?

The proposed project would not physically divide an established community as no established communities exist on the project site. **No impacts** would occur.

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?

The project site is designated and zoned as Public, with the Solid Waste Management Facility land use overlay and the Neal Road Recycling, Energy, and Waste Facility zoning overlay. The Public zoning and land use designation allows for major utilities and other public works facilities, and the overlays specifically promote compatible development around the NRRWF. The overlay zones ensure adequate separation between the NRRWF and land uses that are potentially incompatible with landfill activities. Thus, the proposed development of the site would be consistent with the underlying zoning and surrounding development. The project would not conflict with any of the City's goals and policies contained in the County's General Plan or zoning code. Thus, there would be **no impact**.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- 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?***

The proposed project would not result in any impacts to mineral resources. The NRRWF site does not contain mineral resources that are either designated as important to the State of California or are considered to be of local importance. In addition, the landfill site is not designated as a mineral resource recovery facility. There would be **no impact**.

- 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?***

The site is not designated in a local plan as containing locally important mineral resources. There would be **no impact**.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- 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?***

The proposed project would not result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance. Section 41A-7 of the Butte County Code states that the hourly average (L_{eq}) noise level ranges from 55 L_{eq} in the urban daytime to 40 L_{eq} in the non-urban nighttime. Considering the location within an already established waste and recycling facility and the distance from sensitive receptors (nearest is 5,500 feet southwest of the project site), the project would not cause any significant increases in noise. The hours of operation and on-road and off-road vehicles associated with the project would be consistent with existing landfill activities. Impacts would be **less than significant**.

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

The project would not result in any groundborne vibration or noise except during construction. As stated above, considering the location within an already established waste and recycling facility and the distance from sensitive receptors (5,500 feet southwest of the project site), the project would not cause any significant increases in groundborne vibration or noise levels and the 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?***

Airport-related noise levels are primarily associated with aircraft engine noise made while aircraft are taking off, landing, or running their engines while still on the ground. The project site is located approximately 8.0 miles from Ranchoero Airport and 6.5 miles from Paradise Airport. In addition, the project site is not located within the vicinity of a private airstrip. Therefore, the proposed project would not expose people residing or working in the project area to excessive noise levels. Therefore, no noise impacts from aircraft noise would occur and no mitigation is required. Furthermore, the proposed project would not introduce any new noise sensitive receptors to the study area. **No impacts** would occur.

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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- 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)?*

The proposed project would not induce substantial unplanned population growth, either directly or indirectly. The proposed project would not result in the development of any new homes or businesses. The project would assist the County in meeting landfill diversion goals and GHG reduction goals. The project would maximize landfill capacity to serve existing and future waste disposal demand, but would not create new capacity that would promote unplanned growth. **No impacts** would occur.

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

The proposed project would be developed at an existing landfill site. The proposed project would not result in the displacement of existing people, housing or businesses as a result of the project. **No impacts** would occur.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- 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?

The proposed project would be located at the existing NRRWF site. The proposed project would not result in new residential, commercial or industrial developments that would increase the need for fire protection and police protection services, the building of new schools or parks or the need for either expanded or enhanced public facilities and services. The proposed composting operation would be served by the same service providers that serve the landfill operation. Although the composting operation does have the potential to increase the risk of fires as compared to existing landfill operations, project design features that include restrictions on compost volume and storage and the height, width and length of compost piles; hydrants; sizing of water lines for sufficient fire flow, and sufficient access for fire-fighting equipment and personnel would avoid and minimize increased risk of fire. Thus, impacts would be **less than significant**.

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

- 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?*

See discussion (b), below.

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

The proposed project would be located at the existing NRRWF site. The proposed project would not result in new residential, commercial or industrial developments that would increase the need for new recreational facilities or increase the use of existing recreational facilities. **No impacts** would occur.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

The proposed project would not conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle or pedestrian facilities, nor would the project conflict with or be inconsistent with CEQA Guidelines section 15064, subdivision (b). The proposed project would occur at an existing solid waste landfill operation and would not interfere or impact any public roads or other circulation systems. There would be **no impact**.

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

It is assumed that the proposed project would not have a substantial adverse effect on VMT, as trucks transporting compost feedstocks are already traveling to the site to dispose of them in the landfill, and the

changes in facility staffing would be minimal. Up to 4 local round-trip truck trips per day may occur to offload the finished compost material. Impacts would be **less than significant**.

- 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)?***

The project does not involve the design or redesign of surface transportation facilities. Access to the proposed project would be provided at the existing landfill driveway via SR 99 and Neal Road. The proposed composting operation is compatible with the current landfill operations on site. The project, therefore, would not substantially increase hazards for vehicles due to a geometric design feature or incompatible uses. **No impacts** would occur.

- d) ***Would the project result in inadequate emergency access?***

This project does not affect or change conditions related to emergency access to the landfill site or nearby uses or change existing roadway design in any way. Therefore, **no impacts** to emergency access would occur.

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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a) **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:**

- i) **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)?**

The cultural resources report prepared for the project (Appendix E) did not identify tribal cultural resources eligible for either state or local listing. The project site is located on an existing waste management unit (Module 4) within the landfill, and would not impact previously undisturbed soils. There would be **no impact**.

- ii) **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 California Native American tribe has requested notification of projects, pursuant to Public Resources Code Section 21080.3.1(d), located in or near the NRRWF site. As noted above, the project site consists entirely of a previously disturbed landfill module. There would be **no impact**.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- 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?***

The proposed project would not 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. The proposed project would be located at the existing NRRWF which is already served by utilities providers and the addition of the compost operation would not require additional utilities resources that would necessitate expansion or relocation. **No impacts** would occur.

- 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?***

Composting operations require water to facilitate the composting process, to regulate temperatures and to prevent fires. Current water usage for the NRRWF operation is approximately 300 gallons of potable water per day and 4,500 gallons of reclaimed water per day. Well water is pumped and stored in two above ground 10,000 gallon storage tanks and is available for fire control from landfill water trucks. For the composting operation, it is estimated that approximately 1,000 gallons of potable water and 25 gallons of reclaimed water would be needed each day for moistening the compost piles and other operations. Altogether, the NRRWF operation and the project would use approximately 1,300 gallons of potable water and 4,525 gallons of reclaimed water per day. The NRRWF is located within the East Butte Water Inventory Unit which has had a steady water supply with variability in deep percolation and surface water runoff varying in proportion to annual precipitation (Butte County 2016). The change in water storage by hydrologic year type varies from an additional 11 thousand acre-feet (TAF) of water per year to a loss of 11 TAF during critical dry years. The additional 1,025 gallons of water needed per day for the composting operation would not significantly impact the East Butte Inventory Unit which has historically had stable water supply. Impacts would be **less than significant**.

- 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?*

The proposed project would not result in the construction of any new sewers nor would the project generate sewerage wastewater. Therefore, **no impacts** would occur.

- 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?*

The project would help Butte County cities achieve their State-mandated solid waste reduction goals by diverting organic solid waste from landfill disposal, via composting. The NRRWF operates in compliance with federal, state, regional and local governmental statutes and regulations. **No impacts** would occur.

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

The project would help Butte County achieve State-mandated solid waste reduction goals by diverting organic solid waste from landfill disposal, via composting. The NRRWF operates in compliance with federal, state, regional and local governmental statutes and regulations. **No impacts** would occur.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

Neal Road is an identified emergency evacuation route. The proposed project would not substantially impair use of the route. The proposed project would be located within the existing. Implementation of the CASP would not significantly increase the risk of fire at the facility. CASP includes moisture and temperature controls to minimize fire risks associated with composting. In addition, traffic on Neal Road accessing the NRRWF would not substantially increase. Feedstock would be diverted from exiting haul trips. Up to 8 local one-way- truck trips per day may occur to offload the finished compost material. The additional trips from the proposed composting operation would not add a significant amount of traffic such that there would be conflict with emergency evacuation. During an emergency, such as a regional fire, the additional vehicles exiting the landfill would not interfere or impede nearby resident vehicles that may be attempting to leave the area. Impacts would be **less than significant**.

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?*

The proposed project would not result in the development of new housing or other occupied structures. Therefore, **no impacts** would occur.

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?*

Composting facilities in California are required to comply with general operating standards included in 14 CCR 17867 which requires composting operations to provide fire prevention, protection and control measures, including but not limited to temperature monitoring of windrows and aerated static piles, adequate water supply for fire suppression, and isolation of potential ignition sources from combustible materials. Fire lanes shall also be provided to allow fire control equipment access to all operation areas.

There would be no native vegetation located in close proximity to the unloaded green waste, the windrows, curing piles or finished compost storage areas. The existing JTD includes fire control measures for the NRRWF. As stated in the JTD, fire prevention measures include frequent removal of debris and dust from landfill equipment and vehicles, availability of fire extinguishers on all landfill heavy equipment, entrance facilities and maintenance buildings. The CASP system, with active monitoring of temperature and moisture, minimizes any risk associated with composting activities. Additionally, the RCSI would describe

facility processes, emergency provisions, and identification of responsible oversight regarding implementation of proper fire prevention measures.

The potential for the compost piles to generate fires would be minimized by the implementation of proper compost operation practices detailed in 14 CCR 17867 and site-specific measures such as maintaining the proper moisture content in the compost piles, turning the compost piles at the correct frequency, monitoring the temperature inside the compost piles, ensuring that the compost piles do not exceed the required height, width and length dimensions, maintaining proper spacing between the compost piles and ensuring proper access for firefighting equipment. In the event that a compost pile does catch on fire, the fire would be immediately put out (i.e., smothered) by the loaders at the composting operation. The water truck can also be used if needed. The proposed project would therefore not expose people or structures, either directly or indirectly, to a significant risk or loss, injury or death involving wildland fires. Impacts would be **less than significant**.

- 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?***

The proposed project would not result in the development of new housing or other occupied structures. In addition, the proposed composting operation is not located in close proximity to any downslope or downstream housing or structures. Therefore, the proposed project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire instability or drainage changes. There would be **no impact**.

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- 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 described in this Initial Study, the project site does not contain special status wildlife or plant species, and does not have the potential for cultural resources. The proposed use is consistent with the existing landfill activities on the project site. The proposed project would divert organic material from the landfill, which would provide environmental benefits.

- 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)?***

No current or probable future projects have been identified that would interact with the proposed project. Project construction and operations would occur within the boundary of the existing landfill, and is compatible with the ongoing operation of the landfill. It is noted that future landfill development may include acquisition of adjacent land to ensure adequate landfill capacity for Butte County. The implementation of the proposed project would maximize existing capacity, and therefore minimize the need for additional capacity in the County. In addition, the proposed project would not result in off-site impacts that may combine with other cumulative projects.

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

As described in this Initial Study, the project does not have the potential to adversely effect human beings, either directly or indirectly.

4 References and Preparers

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4.2 List of Preparers

Butte County

Craig Cissell, Deputy Director, Waste Management Division

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Pete Calarco, Assistant Director, Department of Development Services

DUDEK

Steve Peterson, Project Director

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Appendix A

AQ GHG Calculations

Butte County Composting Air Quality and Greenhouse Gas Emissions

Source	Composting Throughput	Operating Schedule	Composting Throughput	ROG lb/ton throughput	ROG lb/day	NO _x lb/day	CO lb/day	SO ₂ lb/day	PM ₁₀ lb/day	PM _{2.5} lb/day	CERF Composting Emission Reduction MT CO2e/ton throughput	CO2 MT/yr	CH4 MT/yr	N2O MT/yr	CO2e MT/yr
	tons per day	days per year	tons per year												
CASP Composting	150	360	40000	0.72	107.40	-	-	-	-	-	-	-	-	-	-
Material Handling	-	-	-	-	1.10	10.32	10.53	0.02	1.81	0.63	-	268.87	0.09	0.00	271.04
Mobile	-	-	-	-	0.22	7.58	1.15	0.02	0.53	0.17	-	110.54	0.01	0.00	110.75
Electricity Use	-	-	-	-	-	-	-	-	-	-	-	70.39	0.01	0.00	71.25
Emergency Generator	-	-	-	-	0.05	0.10	0.84	0.00	0.00	0.00	-	3.81	0.00	0.00	3.82
Total	-	-	-	-	108.77	17.99	12.52	0.05	2.35	0.80	-	453.61	0.11	0.00	456.86
Diverted Green Waste & Food Waste	150	360	40000	1.04	156.00	0.00	0.00	0.00	0.00	0.00	0.56	-	-	-	22,400.00
Amortized Construction	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.43
Net	-	-	-	-	-47.23	17.99	12.52	0.05	2.35	0.80	-	-	-	-	-21,934.71

1. Uncontrolled composting emission factors from CARB Emissions Inventory Methodology for Composting Facilities

2. Diverted ROG EF from Tajiguas Landfill [https://countyofsb.org/uploadedFiles/pwd/Content/RRWMD/App_C_Final_AQ%20and%20GHG_Report\(1\).pdf](https://countyofsb.org/uploadedFiles/pwd/Content/RRWMD/App_C_Final_AQ%20and%20GHG_Report(1).pdf)

Truck unloading/Chipping transfer/Grinder transfer/Screening transfer

$$EF=k \times (0.0032) \times (U/5)^{1.3}/(M/2)^{1.4}$$

Factor	PM10	PM2.5
U=	2.2	2.2
M=	2.5	2.5
k=	0.35	0.053
EF (lb/ton)=	2.82E-04	4.27E-05
PM10	1.35 lb/day	
PM2.5	0.20 lb/day	

Note: Emissions based on US EPA AP-42 Section 13.2.4, Aggregate Handling and Storage Piles

Grinding and Chipping Emissions

Pollutant	EF lb/ton throughput	Emission (lb/day)
PM10	0.000054	0.0081
PM2.5	0.0001	0.015

Note: Emissions based on AP-42 Section 11.19.2, Crushed Stone Processing and Pulverized Mineral Processing, Table 11.19.2-2

Electricity Use:

753,360 kwh/yr
753.36 kwh/size/yr

Assume 32 electric aeration blowers (2.5 kW each or 80 kW) and one electric-powered GORE Cover winder machine (6 kW motor) all running 8,760 hours/year.

Table 2
LFG Fugitive Emissions

Item	Units	Value	Comments
CH ₄ Production	MT/yr	8,565	From GHG Analysis ^a
CH ₄ Production	cu. ft./yr	4.55E+08	cu. ft. = MT x 10 ⁶ g/MT / 453.6 g
LFG Production	cu. ft./yr	909,889,632.94	Default 50% CH ₄ from LandGEM
NMOC Concentration	ppmv as hexane	4,000	Default from LandGEM Model
NMOC Production	cu. ft./yr	3,639,558.53	cu. ft NMOC = cu. ft. LFG x ppm
NMOC Production	lb/yr	811,937.83	lb/yr = ppmv x 10 ⁻⁶ x 86 lb/lb-mc
LFG Collection Efficiency	unitless	0.68	From GHG Analysis ^b
LFG Fugitive Emissions	cu. ft./yr	291,164,683	LFG fugitive emissions = LFG pr
LFG Fugitive NMOC Emissions	lb/yr	2.60E+05	Controlled = Uncontrolled x (1 - (
LFG Fugitive NMOC Emissions	cu. ft./yr	1,164,658.73	Controlled = Uncontrolled x (1 - (

^a Modeled using Equation HH-1 from 40 CFR 98, Subpart HH

^b Calculated using Equation HH-3 from 40 CFR 98, Subpart HH

103,869 SCFHr Estimated total LFG f
86,236 SCFHr Estimated Max LFG f
83.0% Potential landfill gas collection ef

https://countyofsb.org/uploadedFiles/pwd/Content/RRWMD/App_C_Final_AQ%20and%20GHG_Report

<https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/110?siteID=108>

<https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1252?siteID=3283>

g/lb / 16 lb/lb-mole x 385.5 cf/lb-mole
A Model
iv NMOC x 10 ⁻⁶
ole / 385.5 cu. ft./lb-mole
roduction x (1 - Collection efficiency)
Collection efficiency)
Collection efficiency)

Production
 Flow rate to the engine & flare
 fficiency

Appendix B

Climate Action Plan Development Checklist

*Note: page contents is set to printable area.

Project Summary

1. What is the size of the project (in acres?)

8.5

2. What types of land uses are included in the project? Check all that apply:

Single family residences | |

Multi-family residences | |

Retail commercial | |

Office commercial | |

Industrial | |

Other (please describe) | ✓ |

The project consists of the proposed Neal Road Recycling and Waste Facility Composting Project at the Neal Road Recycling and Waste Facility (NRRWF) located at 1023 Neal Road, Paradise, California. The project would redirect 100 tons per day of organic waste away from the landfill disposal to the CASP composting system.

3. If there is a residential component to the project, how many units are being proposed?

Single family residences

N/A

Multi-family residences

N/A

4. Does the project require any amendments to the General Plan or Specific Plans? If so, please describe.

No.

Note: If the project does not require General Plan or Specific Plan amendments, GHG emissions from the project may be consistent with the CAP by demonstrating consistency with the CAP policies in the checklist on the following pages. The project may be able to rely on the CAP's environmental findings for the purposes of GHG emissions and climate change, rather than identifying separate project-level emissions. The information in this checklist should be incorporated into the project's initial study, negative declaration/mitigated negative declaration, environmental impact report, and/or project conditions of approval.

Should the project require any General Plan or Specific Plan amendments, the project's impact on the county may exceed the assumptions in the CAP's 2020 forecast, potentially triggering additional emissions not included in the CAP's GHG forecast. Projects that are inconsistent with the 2020 forecasts may still use the CAP for identification of measures and standards for mitigations, but it is recommended that the project identify separate project-level emissions using California Emissions Estimator Model (CalEEMod) or another tool.

Consistency with CAP Measures

The CAP provides measures that achieve a 15% reduction below 2006 emissions levels by 2020. Projects that wish to demonstrate consistency with the CAP must demonstrate consistency with all applicable measures and action items from the CAP. Consistency with all applicable measures should be cited as evidence to support streamlining from the CAP.

CAP measures that regulate new master-planned developments are provided below. These are minimum standards that are necessary for CAP consistency. Using the table, identify the project's compliance with applicable CAP measures. If a project demonstrates consistency with all applicable standards, the project is eligible to claim consistency with CAP measures and is eligible for CAP streamlining. Additional measures from the CAP may also be recommended.

Standards for CAP Consistency - New Development

Reduction Measure and Applicable Standard	Does the Project Comply?	Notes and Comments
EN7: Nonresidential uses: Achieve CALGreen Tier 1 standards for energy efficiency, water conservation, and passive design.	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Additional notes:
EN8: New discretionary developments consisting of more than 500 residential units: achieve zero net energy through a combination of energy efficiency and renewable energy measures (i.e., on average, the project will generate more electricity on-site each year than it will use).	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	How much renewable energy will be generated on-site? kW What type of system? Solar photovoltaic <input type="checkbox"/> Solar water heater <input type="checkbox"/> Other <input type="checkbox"/>

Electricity on-site each year (than it will use).		Additional notes:
EN8: Multi-family developments: Offset electricity use by power purchase agreements or with on-site solar.	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	How much electricity will be offset? <input type="text"/> kWh What percent of residential electricity will be offset? <input type="text"/> % Additional notes:
EN8: New discretionary projects: prewire for solar PV systems.	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Is the project prewired for solar PV systems? Yes <input type="checkbox"/> No <input type="checkbox"/> Additional notes:

Reduction Measure and Applicable Standard	Compliance	Notes and Comments
EN9: New nonresidential development: prewire for solar PV systems and maximize roof space to accommodate future rooftop solar installations.	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Is the project prewired for solar PV systems? Yes <input type="checkbox"/> No <input type="checkbox"/> Please explain other measures
F1: Nonresidential developments: Provide public electric vehicle prewiring or conduit.	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	If yes, how many spaces are <input type="text"/> Additional notes:
F1: Residential developments: Infrastructure support the use of neighborhood electric vehicles (NEVs). Examples: speed limits no higher than 35 mph, NEV/bike-only traffic lanes, and signage alerting drivers to the presence of NEVs.	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	If yes, what type of measure does the project use? <input type="text"/> Additional notes:
F2: Construction of new development: Use clean or alternative fuel equipment (e.g., electricity, natural gas, hybrid, etc.); or limit the maximum idling time for all construction equipment to three minutes or less.	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	If yes, what type of measure <input type="text"/> Additional notes:
F3: Residential units: Contain electric vehicle charging outlets on external walls or in garages.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	If yes, how many units will have chargers? <input type="text"/> units Additional notes:

Additional Recommended CAP Measures

This list includes additional measures and actions identified in the CAP that are not directly applicable to master-planned developments but may be relevant to a project of this type. These measures should be included in the project design as feasible.

Reduction Measure and Applicable Standard	Applicability	Notes



Appendix C

Energy Use Estimate

Construction Worker Gasoline Demand

Phase	Trips	Vehicle CO₂ (MT)	Kg/CO2/Gallon	Gallons
Site Preparation	192	0.78	8.78	88.59
Grading	270	1.09	8.78	124.58
Foundation Construction	792	3.21	8.78	365.44
Electrical Work	264	1.07	8.78	121.81
Total				700.42

Construction Vendor Diesel Demand

Phase	Trips	Vehicle CO₂ (MT)	Kg/CO2/Gallon	Gallons
Site Preparation	48	0.88	10.21	85.87
Grading	90	1.64	10.21	161.00
Foundation Construction	132	2.41	10.21	236.13
Electrical Work	0	0.00	10.21	0.00
Total				483.00

Construction Haul Diesel Demand

Phase	Trips	Vehicle CO₂ (MT)	Kg/CO2/Gallon	Gallons
Site Preparation	20	0.77	10.21	75.18
Grading	4	0.15	10.21	15.03
Foundation Construction	0	0.00	10.21	0.00
Electrical Work	0	0.00	10.21	0.00
Total				90.22

Construction Equipment Diesel Demand

Phase	Pieces of Equipment	Equipment CO₂ (MT)	Kg/CO2/Gallon	Gallons
Site Preparation	7	40.12	10.21	3,929.76
Grading	8	122.61	10.21	12,009.17
Foundation Construction	9	76.44	10.21	7,486.80
Electrical Work	0	0.00	10.21	0.00
Total				23,425.72

Construction Equipment Usage

Phase	Hours of Equipment Use
Site Preparation	1,344
Grading	2,880
Foundation Construction	4,488
Electrical Work	0
Total	8,712

Mobile Source Diesel Demand

Project Vehicle	Fuel Type	Kg/CO ₂ /Gallon	Vehicle MT CO ₂	Total Gallons
Haul Trucks	Diesel	10.21	110.54	10,826.64

Source	Fuel Type	Kg/CO ₂ /Gallon	MT CO ₂	Total Gallons
Generator	Diesel	10.21	3.81	373.16

Total 11,199.80

Appendix D

Biological Resources - Potential to Occur Species Tables

APPENDIX D1
SPECIAL STATUS WILDLIFE SPECIES POTENTIAL TO OCCUR

Common Name	Status (Federal/State)	Habitat	Potential to Occur
foothill yellow-legged frog	None/SSC, PST	Rocky streams and rivers with open banks in forest, chaparral, and woodland	No potential to occur. No habitat is present.
western spadefoot	None/SSC	Primarily grassland and vernal pools, but also in ephemeral wetlands that persist at least 3 weeks in chaparral, coastal scrub, valley–foothill woodlands, pastures, and other agriculture	Not expected to occur. Grassland to the north of the project site provides marginal habitat, but the project site itself has no habitat.
northwestern pond turtle	None/SSC	Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs with emergent basking sites; adjacent uplands used for nesting and during winter	No potential to occur. No habitat is present.
Blainville's horned lizard	None/SSC	Open areas of sandy soil in valleys, foothills, and semi-arid mountains including coastal scrub, chaparral, valley–foothill hardwood, conifer, riparian, pine–cypress, juniper, and annual grassland habitats	No potential to occur. No habitat is present.
giant garter snake	FT/ST	Freshwater marsh habitat and low-gradient streams; also uses canals and irrigation ditches	No potential to occur. No habitat is present.
tricolored blackbird	BCC/SSC, ST	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberry; forages in grasslands, woodland, and agriculture	Not expected to occur. No nesting habitat present on or near the project site, and the grasslands north of the project site would provide marginal foraging habitat.
burrowing owl	BCC/SSC	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows	Not expected to occur. Closest CNDDDB occurrence was recorded within open grassland approximately 4 miles northwest of the study area in 2006 (CDFW 2020). Nesting site has since been extirpated due to development.No nesting/wintering habitat present on the project site, and the grasslands north of the project site would provide marginal nesting/wintering/foraging habitat.
Swainson's hawk	BCC/ST	Nests in open woodland and savanna, riparian, and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture	Low potential to occur. Closest CNDDDB nesting occurrence was recorded approximately 4 miles east of the study area in 1998 (CDFW 2020). Other 4 occurrences are located along Butte Creek, south of the study area. No habitat is present on the project site, bu tthe grasslands north of the project site could provide marginal foraging habitat.
bald eagle	FDL, BCC/FP, SE	Nests in forested areas adjacent to large bodies of water, including seacoasts, rivers, swamps, large lakes; winters near large bodies of water in lowlands and mountains	Not expected to occur. There are only 3 CNDDDB occurrences within the 9-quad search area, the closest of which was recorded overwintering within oak woodland in the vicinity of Horseshoe Lake, approximately 11 miles north of the study area in 2007 (CDFW 2020). The project site and vicinity lack suitable habitat characteristics.
loggerhead shrike	BCC/SSC	Nests and forages in open habitats with scattered shrubs, trees, or other perches	Not expected to occur. The only CNDDDB occurrence in the 9-quad search area was recorded in riparian habitat along Gold Run Creek approximately 7 miles south of the study area in2002 (CDFW 2020). Grassland to the north of the project site provides marginal habitat, but the project site itself has no habitat.
California black rail	BCC/FP, ST	Tidal marshes, shallow freshwater margins, wet meadows, and flooded grassy vegetation; suitable habitats are often supplied by canal leakage in Sierra Nevada foothill populations	Not expected to occur. There is a known metapopulation of California black rail in the Sierra foothills. The closest CNDDDB occurrence was recorded approximately 5 miles east of the study area during playback surveys conducted between 1994 and 2006 (CDFW 2020).Suitable spring-fed habitat is not present near the project site, and no habitat is present on the project site.
yellow warbler	BCC/SSC	Nests and forages in riparian and oak woodlands, montane chaparral, open ponderosa pine, and mixed-conifer habitats	Low potential to occur. No habitat is present on the project site, bu tthe grasslands north of the project site could provide marginal foraging habitat.
least Bell's vireo	FE/SE	Nests and forages in low, dense riparian thickets along water or along dry parts of intermittent streams; forages in riparian and adjacent shrubland late in nesting season	Not expected to occur. No habitat is present on or adjacent to the project site.
steelhead - Central Valley DPS	FT/None	Coastal basins from Redwood Creek south to the Gualala River, inclusive; does not include summer-run steelhead	No potential to occur. No habitat is present within project site.
chinook salmon - Central Valley spring-run ESU	FT/ST	Populations spawning in the Sacramento and San Joaquin Rivers and their tributaries	No potential to occur. No habitat is present within project site.
pallid bat	None/SSC	Grasslands, shrublands, woodlands, forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in man-made structures and trees	Not expected to occur. Potential foraging and roosting habitat present north of the project site, but no potential habitat within the project site.
Townsend's big-eared bat	None/SSC	Mesic habitats characterized by coniferous and deciduous forests and riparian habitat, but also xeric areas; roosts in limestone caves and lava tubes, man-made structures, and tunnels	Not expected to occur. Potential foraging habitat present north of the project site, but no potential habitat within the project site.
western mastiff bat	None/SSC	Chaparral, coastal and desert scrub, coniferous and deciduous forest and woodland; roosts in crevices in rocky canyons and cliffs where the canyon or cliff is vertical or nearly vertical, trees, and tunnels	Not expected to occur. Potential foraging habitat present north of the project site, but no potential habitat within the project site.

APPENDIX D1
SPECIAL STATUS WILDLIFE SPECIES POTENTIAL TO OCCUR

Common Name	Status (Federal/State)	Habitat	Potential to Occur
American badger	None/SSC	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils	Not expected to occur. Potential habitat present north of the project site, but no potential habitat within the project site.
vernal pool fairy shrimp	FT/None	Vernal pools, seasonally ponded areas within vernal swales, and ephemeral freshwater habitats	No potential to occur. No habitat is present within project site.
valley elderberry longhorn beetle	FT/None	Occurs only in the Central Valley of California, in association with blue elderberry (<i>Sambucus nigra</i> ssp. <i>caerulea</i>)	No potential to occur. No habitat is present within project site.
vernal pool tadpole shrimp	FE/None	Ephemeral freshwater habitats including alkaline pools, clay flats, vernal lakes, vernal pools, and vernal swales	No potential to occur. No habitat is present within project site.

Status Abbreviations:
FE: Federally Endangered
FT: Federally Threatened
FDL: Federally Delisted
BCC: U.S. Fish and Wildlife Service Bird of Conservation Concern
SSC: California Species of Special Concern
FP: California Fully Protected Species
SE: State Endangered
ST: State Threatened
PST: Proposed State Threatened

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Blooming during survey?	Elevation appropriate?	Potential to Occur
<i>Allium jepsonii</i>	Jepson's onion	None/None/1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest; Serpentinite or volcanic/perennial bulbiferous herb/Apr–Aug/980–4,330	N	N	No potential to occur on site due to total lack of habitat. Not expected to occur adjacent to site. The site is outside of the species’ known elevation range.
<i>Balsamorhiza macrolepis</i>	big-scale balsamroot	None/None/1B.2	Chaparral, Cismontane woodland, Valley and foothill grassland; sometimes serpentinite/perennial herb/Mar–June/145–5,100	N	Y	No potential to occur on site due to total lack of habitat. Low potential to occur adjacent to site. CNDDDB only lists two historical occurrences of this species within the 9-quad search area.
<i>Campylopodiella stenocarpa</i>	flagella-like atractylocarpus	None/None/2B.2	Cismontane woodland/moss/N.A./325–1,640	Y	Y	No potential to occur on site due to total lack of habitat. due to total lack of habitat. Low potential to occur adjacent to site. CNDDDB only lists one occurrence of this species within the 9-quad search area, located approximately 7 miles northeast of the study area within volcanic soil (CDFW 2020).
<i>Cardamine pachystigma</i> var. <i>dissectifolia</i>	dissected-leaved toothwort	None/None/1B.2	Chaparral, Lower montane coniferous forest; usually serpentinite, rocky/perennial rhizomatous herb/Feb–May/835–6,885	N	N	No potential to occur on site due to total lack of habitat. Not expected to occur adjacent to site. The site is outside of the species’ known elevation range.
<i>Carex xerophila</i>	chaparral sedge	None/None/1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest; serpentinite, gabbroic/perennial herb/Mar–June/1,440–2,525	N	N	No potential to occur on site due to total lack of habitat. Not expected to occur adjacent to site.The site is outside of the species’ known elevation range.
<i>Castilleja rubicundula</i> var. <i>rubicundula</i>	pink creamsacs	None/None/1B.2	Chaparral (openings), Cismontane woodland, Meadows and seeps, Valley and foothill grassland; serpentinite/annual herb (hemiparasitic)/Apr–June/65–2,985	N	Y	Low potential to occur. Only two historical occurrences documented in CNDDDB, the closest of which recorded this species within open grassland approximately 4 miles southeast of the study area in 1927 (CDFW 2020).
<i>Clarkia gracilis</i> ssp. <i>albicaulis</i>	white-stemmed clarkia	None/None/1B.2	Chaparral, Cismontane woodland; sometimes serpentinite/annual herb/May–July/800–3,555	N	N	No potential to occur on site due to total lack of habitat. Not expected to occur adjacent to site.The site is outside of the species’ known elevation range.
<i>Clarkia mildrediae</i> ssp. <i>mildrediae</i>	Mildred's clarkia	None/None/1B.3	Cismontane woodland, Lower montane coniferous forest; sandy, usually granitic/annual herb/May–Aug/800–5,610	N	N	No potential to occur on site due to total lack of habitat. Not expected to occur adjacent to site.The site is outside of the species’ known elevation range.
<i>Clarkia mosquinii</i>	Mosquin's clarkia	None/None/1B.1	Cismontane woodland, Lower montane coniferous forest; rocky, roadsides/annual herb/May–July(Sep)/605–4,885	N	N	No potential to occur on site due to total lack of habitat. Not expected to occur adjacent to site.The site is outside of the species’ known elevation range.
<i>Delphinium recurvatum</i>	recurved larkspur	None/None/1B.2	Chenopod scrub, Cismontane woodland, Valley and foothill grassland; alkaline/perennial herb/Mar–June/5–2,590	N	Y	No potential to occur on site due to total lack of habitat. Not expected to occur adjacent to site. The study area is outside of the known geographic range of this species. The only CNDDDB occurrence within the 9-quad search area is from a 1938 collection, and believed to be extirpated (CDFW 2020).
<i>Eriogonum umbellatum</i> var. <i>ahartii</i>	Ahart's buckwheat	None/None/1B.2	Chaparral, Cismontane woodland; serpentinite, slopes, openings/perennial herb/June–Sep/1,310–6,560	N	N	No potential to occur on site due to total lack of habitat. Not expected to occur adjacent to site.The site is outside of the species’ known elevation range.
<i>Euphorbia hooveri</i>	Hoover's spurge	FT/None/1B.2	Vernal pools/annual herb/July–Sep(Oct)/80–820	Y	Y	No potential to occur on site due to total lack of habitat. Not expected to occur adjacent to site. Vernal pool habitat for this species is absent from the study area. The only CNDDDB occurrence within the 9-quad search area recorded the species within vernal pools approximately 3 miles southeast of the study area in 2011 (CDFW 2020).
<i>Frangula purshiana</i> ssp. <i>ultramafica</i>	Caribou coffeeberry	None/None/1B.2	Chaparral, Lower montane coniferous forest, Meadows and seeps, Upper montane coniferous forest; serpentinite/perennial deciduous shrub/May–July/2,705–6,330	N	N	No potential to occur on site due to total lack of habitat. Not expected to occur adjacent to site.The site is outside of the species’ known elevation range.
<i>Fritillaria pluriflora</i>	adobe-lily	None/None/1B.2	Chaparral, Cismontane woodland, Valley and foothill grassland; often adobe/perennial bulbiferous herb/Feb–Apr/195–2,310	N	Y	No potential to occur on site due to total lack of habitat. Low potential to occur adjacent to site within valley grassland. There are 7 CNDDDB occurrences within the 9-quad search area, the closest of which recorded

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Blooming during survey?	Elevation appropriate?	Potential to Occur
						this species approximately 3 miles east of the study area in 1935 (CDFW 2020). However, the only modern occurrence was recorded approximately 10 miles north of the study area in 2020 (CDFW 2020).
<i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i>	woolly rose-mallow	None/None/1B.2	Marshes and swamps (freshwater); Often in riprap on sides of levees./perennial rhizomatous herb (emergent)/June–Sep/0–395	N	Y	No potential to occur on or adjacent to site due to total lack of habitat. The CNDDDB lists 10 occurrences within the 9-quad search, the closest of which was recorded along Clear Creek approximately 5 miles southeast of the study area in 1977 (CDFW 2020).
<i>Imperata brevifolia</i>	California satintail	None/None/2B.1	Chaparral, Coastal scrub, Mojavean desert scrub, Meadows and seeps (often alkali), Riparian scrub; mesic/perennial rhizomatous herb/Sep–May/0–3,985	Y	Y	No potential to occur on or adjacent to site due to total lack of habitat. Only two historical CNDDDB occurrences are documented within the 9-quad search area.
<i>Juncus leiospermus</i> var. <i>leiospermus</i>	Red Bluff dwarf rush	None/None/1B.1	Chaparral, Cismontane woodland, Meadows and seeps, Valley and foothill grassland, Vernal pools; vernal mesic/annual herb/Mar–June/110–4,100	N	Y	No potential to occur on site due to total lack of habitat. Low potential to occur adjacent to site within valley grassland. Although there are 20 CNDDDB occurrences listed within the 9-quad search, all occurrences are located at a higher elevation than the study area.
<i>Layia septentrionalis</i>	Colusa layia	None/None/1B.2	Chaparral, Cismontane woodland, Valley and foothill grassland; sandy, serpentinite/annual herb/Apr–May/325–3,590	N	Y	No potential to occur on site due to total lack of habitat. Low potential to occur adjacent to project site. The study area is at the lower elevational limit of this species. The only CNDDDB occurrence was recorded approximately 9 miles east of the study area in 1969 (CDFW 2020).
<i>Limnanthes floccosa</i> ssp. <i>californica</i>	Butte County meadowfoam	FE/SE/1B.1	Valley and foothill grassland (mesic), Vernal pools/annual herb/Mar–May/150–3,050	N	Y	No potential to occur on site due to total lack of habitat. Low potential to occur adjacent to site within valley grassland.
<i>Monardella venosa</i>	veiny monardella	None/None/1B.1	Cismontane woodland, Valley and foothill grassland; heavy clay/annual herb/May,July/195–1,345	N	Y	No potential to occur on site due to total lack of habitat. Low potential to occur adjacent to site within valley grassland.
<i>Packera eurycephala</i> var. <i>lewisrosei</i>	Lewis Rose's ragwort	None/None/1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest; serpentinite/perennial herb/Mar–July(Aug–Sep)/895–6,200	N	N	Not expected to occur. The site is outside of the species' known elevation range.
<i>Paronychia ahartii</i>	Ahart's paronychia	None/None/1B.1	Cismontane woodland, Valley and foothill grassland, Vernal pools/annual herb/Feb–June/95–1,670	N	Y	No potential to occur on site due to total lack of habitat. Low potential to occur adjacent to site within valley grassland.
<i>Penstemon personatus</i>	closed-throated beardtongue	None/None/1B.2	Chaparral, Lower montane coniferous forest, Upper montane coniferous forest; metavolcanic/perennial herb/June–Sep(Oct)/3,490–6,955	Y	N	Not expected to occur. The site is outside of the species' known elevation range.
<i>Rhynchospora californica</i>	California beaked-rush	None/None/1B.1	Bogs and fens, Lower montane coniferous forest, Meadows and seeps (seeps), Marshes and swamps (freshwater)/perennial rhizomatous herb/May–July/145–3,310	N	Y	No potential to occur on site or adjacent to site due to total lack of habitat.
<i>Rhynchospora capitellata</i>	brownish beaked-rush	None/None/2B.2	Lower montane coniferous forest, Meadows and seeps, Marshes and swamps, Upper montane coniferous forest; mesic/perennial herb/July–Aug/145–6,560	N	Y	No potential to occur on site or adjacent to site due to total lack of habitat.
<i>Sidalcea robusta</i>	Butte County checkerbloom	None/None/1B.2	Chaparral, Cismontane woodland/perennial rhizomatous herb/Apr–June/295–5,245	N	Y	No potential to occur on site or adjacent to site due to total lack of habitat.
<i>Stuckenia filiformis</i> ssp. <i>alpina</i>	slender-leaved pondweed	None/None/2B.2	Marshes and swamps (assorted shallow freshwater)/perennial rhizomatous herb (aquatic)/May–July/980–7,050	N	N	No potential to occur on site or adjacent to site due to total lack of habitat, and the site is outside the species elevation range.
<i>Trifolium jokerstii</i>	Butte County golden clover	None/None/1B.2	Valley and foothill grassland (mesic), Vernal pools/annual herb/Mar–May/160–1,570	N	Y	No potential to occur on site due to total lack of habitat. Low potential to occur adjacent to site within valley grassland.
<i>Tuctoria greenei</i>	Greene's tuctoria	FE/SR/1B.1	Vernal pools/annual herb/May–July(Sep)/95–3,510	N	Y	No potential to occur on site due to total lack of habitat. Low potential to occur adjacent to site within valley grassland.

Appendix E

Cultural Resources Inventory Report

December 9, 2020

Mr. Eric Miller
Butte County Department of Public Works
7 County Center Dr.
Oroville, CA 95965

Subject: *Cultural Resources Inventory Report for the Neal Road Recycling and Waste Facility Compost Project, Butte County, California – Negative Findings*

Dear Mr. Miller:

This letter documents the negative findings of cultural resources Inventory efforts conducted by Dudek for the Neal Road Recycling and Waste Facility Composting Project (Project), located in Butte County, California. The Butte County Public Works Department is the lead agency responsible for compliance with the California Environmental Quality Act (CEQA). All cultural resource fieldwork and reporting for this Project has been conducted by archaeologists meeting the Secretary of the Interior's Professional Qualifications Standards. Results from a Native American Heritage Commission (NAHC) Sacred Lands File (SLF) search request returned a negative result. A Northeast Information Center (NEIC) records search indicated that no cultural resources have been recorded within the area of potential effects (APE). Intensive pedestrian survey conducted of the APE did not identify any new cultural resources.

Project Location and Description

The proposed Project is located within the existing a the current boundaries of the Neal Road Recycling and Waste Facility (NRRWF) located at 1023 Neal Road in unincorporated Butte County near the Town of Paradise, southeast of the City of Chico and east of the census-designated place of Durham off of State Route 99 (Figure 1, Project Location). The project site is located in Township 21 North, Range 2 East, and Sections 14 and 15 within the Hamlin Canyon, CA U.S. Geological Survey 7.5-minute quadrangles.

The Project proposes construction of a covered aerated static pile (CASP) composing facility covering approximately 15 acres on the top deck of Module 4 within the NRRWF. The CASP facility will consist of heap piles with an oxygen controlled, positively aerated system for the conversion of organic waste into compost while efficiently trapping odors and other emissions such as dust. Project construction is anticipated to occur in two stages with each stage consisting of eight heap piles with aeration pipes, stormwater drainage, pipe and electrical service, loading areas, and other project infrastructure.

The proposed project is in response to Assembly Bill (AB) 1383, which requires a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020. At full buildout, the Project will have throughput of approximately 30,000 tons of organic waste and will produce approximately 30,000 cubic yards of compost per year

Regulatory Context

While the Project as currently planned is subject only to state and local regulatory conditions, federal regulations are also provided here for reference should they be relevant in the future.

Federal Regulations

National Historic Preservation Act (NHPA)

The NHPA established the National Register of Historic Places (NRHP) and the President's Advisory Council on Historic Preservation (ACHP), and provided that states may establish State Historic Preservation Officers (SHPOs) to carry out some of the functions of the NHPA. Most significantly for federal agencies responsible for managing cultural resources, Section 106 of the NHPA directs that "[t]he head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the NRHP." Section 106 also affords the ACHP a reasonable opportunity to comment on the undertaking (16 USC 470f).

36 Code of Federal Regulations, Part 800 (36 CFR 800) implements Section 106 of the NHPA. It defines the steps necessary to identify historic properties (those cultural resources listed in or eligible for listing in the NRHP), including consultation with federally recognized Native American tribes to identify resources with important cultural values; to determine whether or not they may be adversely affected by a proposed undertaking; and the process for eliminating, reducing, or mitigating the adverse effects.

The content of 36 CFR 60.4 defines criteria for determining eligibility for listing in the NRHP. The significance of cultural resources identified during an inventory must be formally evaluated for historic significance in consultation with the California SHPO to determine if the resources are eligible for inclusion in the NRHP. Cultural resources may be considered eligible for listing if they possess integrity of location, design, setting, materials, workmanship, feeling, and association. The criteria for determining eligibility are essentially the same in content and order as those outlined under the California Environmental Quality Act (CEQA), but the criteria under NHPA are labeled A through D (rather than 1–4 under CEQA).

Regarding criteria A through D of Section 106, the quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, cultural resources, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that:

- A. are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. are associated with the lives of persons significant in our past; or
- C. embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. have yielded or may be likely to yield, information important in prehistory or history [36 CFR 60.4].

The current cultural resources inventory is not designed to generate enough data to make eligibility recommendations on previously recorded cultural resources that are outside of the APE, or newly discovered cultural resources; such determinations are typically made during a subsequent evaluation phase (e.g., excavations at prehistoric sites). However, the survey was designed to generate enough information to provide informal assessments of eligibility to help guide management considerations.

State of California

California Register of Historical Resources

In California, the term “historical resource” includes “any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California” (California Public Resources Code, Section 5020.1(j)). In 1992, the California legislature established the California Register of Historical Resources (CRHR) “to be used by state and local agencies, private groups, and citizens to identify the state’s historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change” (California Public Resources Code, Section 5024.1(a)). The criteria for listing resources on the CRHR, enumerated in the following text, were developed to be in accordance with previously established criteria developed for listing in the NRHP. According to California Public Resources Code, Section 5024.1(c)(1–4), a resource is considered historically significant if it (i) retains “substantial integrity,” and (ii) meets at least one of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage
2. Is associated with the lives of persons important in our past
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values
4. Has yielded, or may be likely to yield, information important in prehistory or history

To understand the historic importance of a resource, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. A resource less than 50 years old may be considered for listing in the CRHR if it can be demonstrated that sufficient time has passed to understand its historical importance (14 CCR 4852(d)(2)).

The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. The criteria for the CRHR are nearly identical to those for the NRHP, and properties listed or formally designated as eligible for listing in the NRHP are automatically listed in the CRHR, as are state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

California Environmental Quality Act

As described in the following text, the following CEQA statutes and CEQA Guidelines are of relevance to the analysis of archaeological, historic, and tribal cultural resources:

- California Public Resources Code, Section 21083.2(g), defines “unique archaeological resource.”

- California Public Resources Code, Section 21084.1, and CEQA Guidelines, Section 15064.5(a), define “historical resources.” In addition, CEQA Guidelines, Section 15064.5(b), defines the phrase “substantial adverse change in the significance of an historical resource.” It also defines the circumstances when a project would materially impair the significance of a historical resource.
- California Public Resources Code, Section 21074(a), defines “tribal cultural resources.”
- California Public Resources Code, Section 5097.98, and CEQA Guidelines, Section 15064.5(e), set forth standards and steps to be employed following the accidental discovery of human remains in any location other than a dedicated ceremony. The NAHC is to resolve disputes regarding the disposition of such remains. In addition, the Native American Historic Resource Protection Act makes it a misdemeanor, punishable by up to 1 year in jail, to deface or destroy a Native American historic or cultural site that is listed or may be eligible for listing in the CRHR.

Under CEQA, a project may have a significant effect on the environment if it exceeds the thresholds of significance stated in the Appendix G Guidelines:

- a) Causes a substantial adverse change in the significance of a historical resources as defined in 14 CCR 15064.5(b)
- b) Causes a substantial adverse change in the significance of an archaeological resource pursuant to 14 CCR 15064.5(b)
- c) Directly or indirectly destroys a unique paleontological resource or site or unique geologic feature
- d) Disturbs any human remains, including those interred outside of formal cemeteries

If a site is either listed or eligible for listing in the CRHR, included in a local register of historic resources, or identified as significant in a historical resources survey (meeting the requirements of California Public Resources Code, Section 5024.1(q)), it is a “historical resource” and is presumed to be historically or culturally significant for purposes of CEQA (California Public Resources Code, Section 21084.1; 14 CCR 15064.5(a)). The lead agency is not precluded from determining that a resource is a historical resource, even if it does not fall within this presumption (California Public Resources Code, Section 21084.1; 14 CCR 15064.5(a)).

A “substantial adverse change in the significance of an historical resource” reflecting a significant effect under CEQA means “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired” (14 CCR 15064.5(b)(1); California Public Resources Code Section 5020.1(q)). In turn, the significance of a historical resource is materially impaired when a project does any of the following:

1. Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or
2. Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the California Public Resources Code or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the California Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

3. Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a lead agency for purposes of CEQA. (14 CCR 15064.5(b)(2))

Pursuant to these sections, the CEQA inquiry begins with evaluating whether a project site contains any “historical resources,” then whether that project will cause a substantial adverse change in the significance of a historical resource such that the resource’s historical significance is materially impaired.

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (California Public Resources Code, Section 21083.2(a), (b), and (c)).

California Public Resources Code, Section 21083.2(g), defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person

Impacts to nonunique archaeological resources are generally not considered a significant environmental impact (California Public Resources Code, Section 21083.2(a); 14 CCR 15064.5(c)(4)). However, if a nonunique archaeological resource qualifies as tribal cultural resource (California Public Resources Code, Sections 21074(c), 21083.2(h)), further consideration of significant impacts is required.

CEQA Guidelines, Section 15064.5, assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered (14 CCR 15064.5). As described in the following text, these procedures are detailed in California Public Resources Code, Section 5097.98.

California State Assembly Bill 52

Assembly Bill (AB) 52 of 2014 amended California Public Resources Code, Section 5097.94, and added California Public Resources Code, Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. AB 52 established that tribal cultural resources must be considered under CEQA and also provided for additional Native American consultation requirements for the lead agency. California Public Resources Code, Section 21074, defines tribal cultural resources as follows:

1. “Tribal cultural resources” are either of the following:
 - a. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
 - i. Included or determined to be eligible for inclusion in the California Register of Historical Resources.
 - ii. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

- 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.
2. A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.
3. A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a “nonunique archaeological resource” as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

AB 52 formalizes the lead agency–tribal consultation process, requiring the lead agency to initiate consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of the proposed Project, including tribes that may not be federally recognized, and that have requested in writing that the lead agency notify them of proposed projects within such geographic area. Lead agencies are required to begin consultation prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report (EIR).

Section 9 of AB 52 establishes that “a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment.” Section 6 of AB 52 added Section 21080.3.2 to the California Public Resources Code, which states that parties may propose mitigation measures “capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource.” Further, if a California Native American tribe requests consultation regarding Project alternatives, mitigation measures, or significant effects to tribal cultural resources, the consultation shall include those topics (California Public Resources Code Section 21080.3.2(a)). The environmental document and the mitigation monitoring and reporting program (where applicable) shall include any mitigation measures that are adopted (California Public Resources Code Section 21082.3(a)).

Native American Human Remains

State law (California Public Resources Code, Section 5097 et seq.) addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and established the NAHC.

In the event that Native American human remains or related cultural material are encountered, Section 15064.5(e) of the CEQA Guidelines (as incorporated from California Public Resources Code, Section 5097.98) and California Health and Safety Code, Section 7050.5, define the subsequent protocol. In the event of the accidental discovery or recognition of any human remains, excavation or other disturbances shall be suspended on the site or any nearby area reasonably suspected to overlie adjacent human remains or related material. Protocol requires that the County Coroner or County-approved Coroner represented be contacted in order to determine if the remains are of Native American origin. Should the coroner determine the remains to be Native American, the coroner must contact the NAHC within 24 hours. The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work for means of treating, with appropriate dignity, the human remains and any associated grave goods as provided in California Public Resources Code, Section 5097.98 (14 CCR 15064.5(e)).

California Health and Safety Code, Section 7050.5

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. California Health and Safety Code, Section 7050.5, requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains can occur until the County Coroner has examined the remains (California Health and Safety Code, Section 7050.5b). California Public Resources Code, Section 5097.98, also outlines the process to be followed in the event that remains are discovered. If the County Coroner determines or has reason to believe the remains are those of a Native American, the County Coroner must contact the California NAHC within 24 hours (California Health and Safety Code, Section 7050.5c). The NAHC will notify the most likely descendant. With the permission of the landowner, the most likely descendant may inspect the site of discovery. The inspection must be completed within 48 hours of notification of the most likely descendant by the NAHC. The most likely descendant may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans. California Public Resources Code, Sections 21083.2(b-c), and CEQA Guidelines, Section 15126.4, provide information regarding the mitigation framework for archaeological and historic resources, including examples of preservation-in-place mitigation measures. Preservation-in-place is the preferred manner of mitigating impacts to significant archaeological sites because it maintains the relationship between artifacts and the archaeological context and may also help avoid conflict with religious or cultural values of groups associated with the archaeological sites.

Records Search

A records search of the APE and the surrounding one half-mile was completed by NEIC staff on behalf of Dudek on October 27, 2020 (Confidential Appendix A). This search included their collection of mapped prehistoric, historical and built-environment resources, Department of Parks and Recreation (DPR) Site Records, technical reports, archival resources, and ethnographic references. Additional consulted sources included the National Register of Historic Places (NRHP), California Inventory of Historical Resources/CRHR and listed OHP Archaeological Determinations of Eligibility, California Points of Historical Interest, California Historical Landmarks, and Caltrans Bridge Survey information.

Previously Conducted Studies:

NEIC records indicate that eight previous cultural resources technical investigations have been conducted within a half-mile of the APE. Of these, three intersect the current APE (Table 1). The entire APE has been subject to previous archaeological survey.

Table 1. Previous technical studies within a one half-mile radius of the APE

Report Number	Author	Year	Title
Intersecting the Project APE			
000839	Kowta, Makoto	1988	The Archaeology and Prehistory of Plumas and Butte Counties, California: An Introduction and Interpretive Model

Report Number	Author	Year	Title
003440	Jensen, Peter M.	2000	Archaeological Inventory Survey for the Neal Road Landfill Development and Expansion Project, c. 165 acres along Neal Road, South of Chico, Butte County, California
014341	King, Jerome H., William R. Hildebrandt, and Sharon A. Waechter	2016	Part I – Overview: A Class I Cultural Resources Overview and Existing Information Inventory for the Northwest California Integrated Resource Management Plan, Bureau of Land Management, Redding and Arcata Field Offices
Within One Half-Mile of the Project APE			
000407	Offermann, Janis K. and Robert I. Orlins	1980	An Archaeological Survey of the Cottonwood-Elverta # 3 Transmission Line in Shasta, Tehama, and Butte Counties, California
003436	Jensen, Peter M	2000	Phase I Archaeological Testing Report, the Neal Road Rockshelter, Site P04-001561
008051	Manning, James P.	1980	Archaeological Reconnaissance of the Proposed Neal Road Sanitary Land Fill Site #2, Butte County, California
008071	Janevein, Steve and Blossom Hamusek	1993	Archaeological Reconnaissance of the Neal Road Improvement Project, Butte County, California
013255	Davy, Douglas, Humphrey Calicher, and Wiliam Shapiro	2007	Cultural Resources Inventory for the North Area Right-of-Way Maintenance Environmental Assessment CVP and Pacific AC Intertie

Previously Identified Cultural Resources:

No previously-recorded cultural resources intersect the proposed APE. Three previously-recorded cultural resources are located within one half-mile of the proposed APE, one of which is within the boundary of the NRRWF (Table 2; Confidential Appendix A).

Table 2. Cultural Resources in Relation to the APE

Primary	Trinomial / Name / Other ID	Age	Description
Within One Half-Mile of the Project APE			
P-04-000433	CA-BUT-433; Pentz Road Caves; S183	Prehistoric	Bedrock Milling Feature (AP4), Rockshelter/cave (AP14)
P-04-001561	NRL #1	Prehistoric	Lithic Scatter (AP2), Habitation debris (AP15)
P-04-001748	CA-BUT-1748H; BS-13	Historic	Foundations/structure pads (AH2)

Two additional unmapped resources are recorded within Township 21N, Range 2E, Section 11 and may fall within one half-mile of the APE. These sites are both rockshelters, one of which is associated with bedrock milling features and groundstone artifacts.

P-04-001561

The only archaeological site within the NRRWF consists of a small habitation site and rockshelter (P-04-001561). This resource consists of a small prehistoric occupation site with midden soils and lithics situated within and outside of a low overhanging volcanic lava cap escarpment. The site straddles the boundary of the NRRWF approximately 60 meters east of the proposed APE. The site was recorded and tested in 2000, at which time a 2-m-x-2-m test unit was excavated to a maximum depth of 60 cm below surface. The recovered assemblage included projectile points, flaked and ground stone tools, debitage, other artifacts, and a small faunal assemblage, all of which are consistent with interpretation of P-04-001561 as a prehistoric occupation site (See Appendix A for additional details).

Review of Historical Maps and Aerial Imagery

Dudek consulted historic maps and aerial photographs to understand development of the APE and surrounding properties. Historic aerial photographs, available from 1947 to 2016, and historic maps, available from 1912 to 2018, were inspected to observe previous development in the Project site (NETR 2020). These maps and images display the Project area as undeveloped open land up to the late 1990s and early 2000s, with the development/expansion of the NRRWF into the APE by 2005.

NAHC Sacred land file Search

Dudek requested a NAHC search of their Sacred Lands File on November 18, 2020 for the Project site (Appendix B). Results for this search were provided by the NAHC on December 9, 2020. Results were negative. A list of traditionally culturally affiliated Native American tribal representatives who may have additional information related to cultural resources in the area was provided as part of this search. In the interest of ensuring efficient and direct consultation between the County and tribes, Dudek has not followed up by contacting the tribes directly.

The proposed Project is subject to compliance with Assembly Bill 52 (PRC Section 21074), which requires consideration of impacts to “tribal cultural resources” as part of the CEQA process, and requires the CEQA lead agency to notify any groups (who have requested notification) of the proposed Project who are traditionally or culturally affiliated with the geographic area of the Project. Because Assembly Bill 52 is a government-to-government process, all records of correspondence related to Assembly Bill 52 notification and any subsequent consultation are on file with the lead agency.

Methods

Intensive Pedestrian Survey

Dudek archaeologist Nicholas Hanten, MA, inspected all areas of the APE on November 16, 2020. Most of the project site has been graded as a part of the development of the NRRWF. The slopes on the periphery of the APE have been stabilized to prevent erosion by covering with plastic sheeting or a sprayed substrate. Portions of the APE have also been disturbed by the installation of buried pipes as evident by several manhole/valve covers within the APE. Ground visibility was high, with small areas of ground surface obscured by refuse or fill material. Evidence

of artifacts and archaeological deposits were opportunistically sought through inspection of exposed erosional features and mechanical cuts. No archaeological artifacts or features were identified.

The previously recorded site, P-04-001561, was relocated and found to be in the same condition as described in the site record and previous reports although a wire fence, which serves to distinguish the boundary of the NRRWF, does intersect the site boundary. The APE is located approximately 60 meters west and up a substantial slope from the site, making it very unlikely that the site will be accidentally impacted by the current project.

Review of Setting and Archaeological Sensitivity

Potential for yet identified cultural resources in the vicinity was reviewed against geologic and topographic GIS data for the area and information from other near-by projects. The “archaeological sensitivity,” or potential to support the presence of a buried prehistoric archaeological deposits, is generally interpreted based on geologic landform, environmental parameters (i.e., distance to water and landform slope), and an area’s history of use.

There are two soil types mapped on the project site: Doemill-Jokerst, 0 to 3% slopes on the flat portion of the ridge and Xerorthents, shallow/Typic Haploxeralfs/Rock outcrop, cliffs complex, 15 to 30% slopes on the slopes at the periphery of the project (USDA 2020). The primary constituents of these soils are gravelly loam or clay loam. Soils in Doemill-Jokerst series are formed in material weathered from volcanic breccia, while shallow Xerorthents and Typic Haploxeralfs are formed from loamy residuum and/or colluvium derived from volcanic rock.

The Project area has been subject to disturbances related to the develop of the Neal Road Recycling and Waste Facility. The area was developed less than 20 years ago, based on review of historical aerial imagery and topographic maps. Additionally, no archaeological resources were observed during pedestrian survey, nor have they been previously recorded in areas that would be impacted. In consideration of this information the Project area has a low potential to support the presence of intact buried archaeological deposits.

Summary And Management Considerations

No archaeological resources were identified within the APE or immediate vicinity as a result of intensive pedestrian survey and the CHRIS records search. Based on review of the Project setting, the area has a relatively low potential to contain unanticipated cultural resources. Management recommendations to reduce potential impacts to unanticipated archaeological resources and human remains during project construction are provided below.

Unanticipated Archaeological Resources

All employees should be alerted to the potential to encounter archaeological material. In the event that cultural resources (sites, features, or artifacts) are exposed during work activities for the proposed Project, all ground disturbing work occurring within 100 feet of the find shall immediately stop until a qualified specialist, meeting the Secretary of the Interior’s Professional Qualification Standards, can evaluate the significance of the find and determine whether additional study is warranted. Prehistoric archaeological deposits may be indicated by the presence of discolored or dark soil, fire-affected material, concentrations of fragmented or whole freshwater bivalves shell, burned or complete bone, non-local lithic materials, or the characteristic observed to be atypical of the surrounding area. Common prehistoric artifacts may include modified or battered lithic materials; lithic or bone tools that appeared to have been used for chopping, drilling, or grinding; projectile points; fired clay ceramics or non-functional items; and other items. Historic-age

deposits are often indicated by the presence of glass bottles and shards, ceramic material, building or domestic refuse, ferrous metal, or old features such as concrete foundations or privies. Depending upon the significance of the find under CEQA (14 CCR 15064.5(f); PRC Section 21082), the archaeologist may simply record the find and allow work to continue. If the discovery proves significant under CEQA, additional work, such as preparation of an archaeological treatment plan, testing, or data recovery may be warranted.

Unanticipated Human Remains

In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the County Coroner shall be immediately notified of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within 2 working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she shall notify the NAHC in Sacramento 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 descendant from the deceased Native American. The most likely descendant shall complete his/her inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

Should you have any questions relating to this report and its findings please do not hesitate to contact me directly.

Respectfully Submitted,



Adam Giacinto, MA., RPA

Archaeologist

DUDEK

T: 530.863.4653

agiacinto@dudek.com

cc: Nicholas Hanten, Dudek
Brian Grattidge, Dudek

Att: NADB Information
Figure 1. Project Location
Figure 2. Project APE
Appendix A: NCIC Records Search Information (Confidential)
Appendix B: NAHC SLF Search

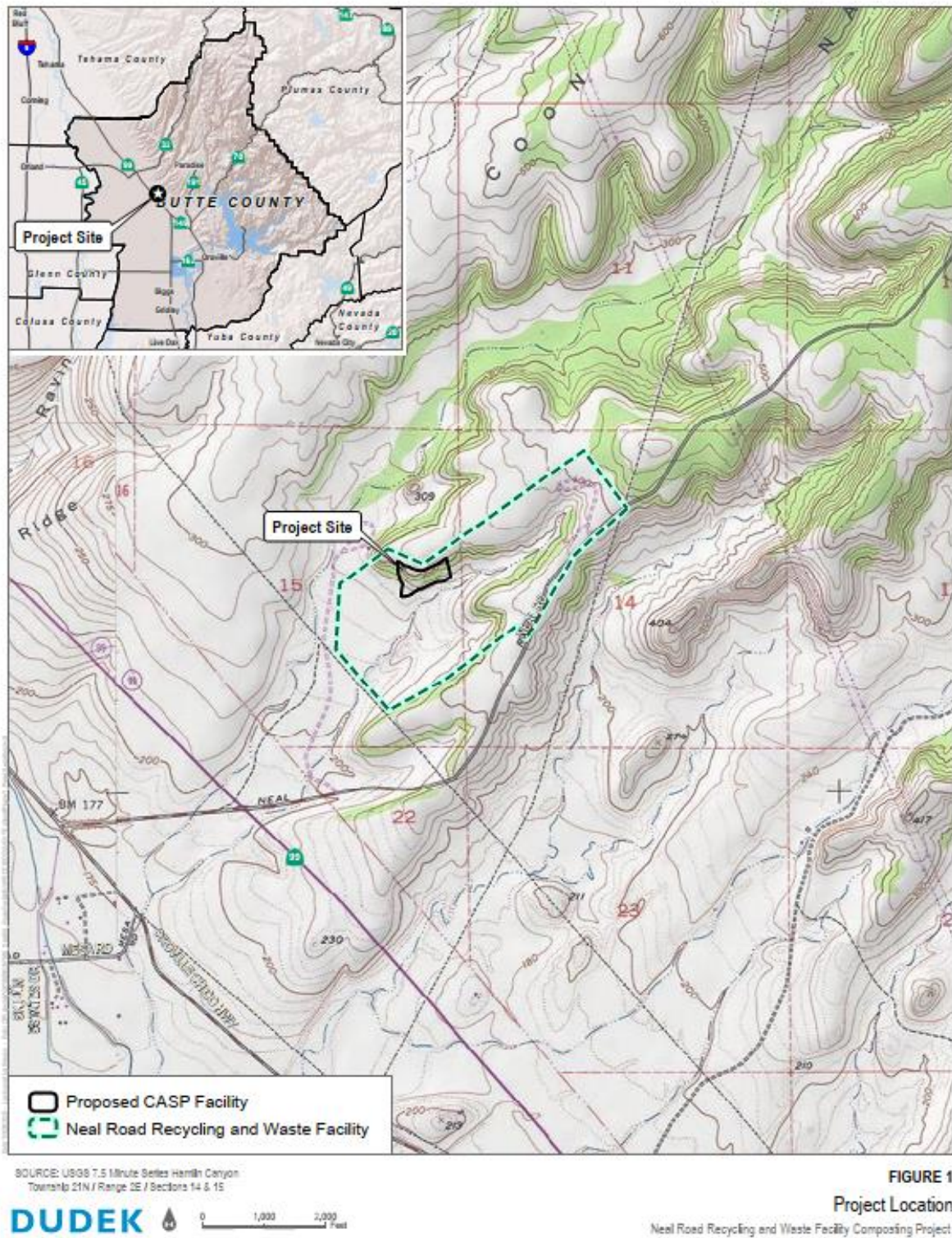
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<http://www.historicaerials.com/>.

USDA (United States Department of Agriculture). 2020. *Natural Resources Conservation Service (NRCS). Web Soil Survey*. Accessed November 20, 2020. <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>.

National Archaeological Data Base Information

Authors:	Adam Giacinto, MA, RPA and Nicholas Hanten, MA
Firm:	Dudek
Client/Project Proponent:	Butte County Public Works Department
Report Date:	04/02/2020
Report Title:	Cultural Resources Inventory Report for the Neal Road Recycling and Waste Facility Compost Project, Butte County, California
Type of Study:	Cultural Resources Inventory
New Sites:	None
Updated Sites:	None
USGS Quad:	Downieville 7.5-minute
Acreage:	Approximately 15 acres
Key Words:	Butte County







Appendix A

NCIC Records Search Information

(Confidential)



Appendix B

NAHC Sacred Lands File Search

NATIVE AMERICAN HERITAGE COMMISSION

December 9, 2020

Nicholas Hanten

DUDEK

Via Email to: nhanten@dudek.com

Re: Neal Road Recycling and Waste Facility Project (12979.01), Butte County

Dear Mr. Hanten:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Nancy.Gonzalez-Lopez@nahc.ca.gov.

Sincerely,



Nancy Gonzalez-Lopez
Cultural Resources Analyst

Attachment



CHAIRPERSON
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Luiseño

VICE CHAIRPERSON
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Chumash

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Merri Lopez-Keifer
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Butte County
12/9/2020**

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This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Neal Road Recycling and Waste Facility Project (12979.01), Butte County.