City of Placerville

INITIAL STUDY/ ENVIRONMENTAL CHECKLIST AND MITIGATION MONITORING PROGRAM

Project Title:
Hangtown Creek Water Reclamation Facility Clean Water State Revolving Loan Solar Photovoltaic Facility

Lead Agency Name and Address:
City of Placerville
3101 Center Street
Placerville, CA 95667

Contact Person and Phone Number:
Pierre Rivas, Director
Development Services Department
(530) 642-5252

Project Location: The proposed project is located approximately 3.5 miles west of downtown Placerville at 2300 Cool Water Court, where the City of Placerville owns and operates the Hangtown Creek Water Reclamation Facility (**Figure 1**). It is located within the Placerville 7.5-minute Quadrangle, in Township 10 North, Range 10 East, Section 11, in the Southwest ¼ of Section 11 (**Figure 2**). The parcel on which the WRF is located (Assessor's parcel Number 23-210-02) comprises 21.72 acres. The City proposes to install a solar photovoltaic system on an approximately 2.88-acre undeveloped portion of the property located in the upper northwest corner. This area is adjacent to and above the FEB (Flow Equalization Basin) and lies just north of Hangtown Creek at an elevation of approximately 1,580 feet above mean sea level. Properties adjacent to the north are large lot single-family residential uses (four homes) with a parking/loading area and Cool Water Court bordering to the east of the project area (**Figure 3**).

General Plan Designation: Public Facilities (PF)

Zoning: Public Facilities (PF)

Description of Project:

The project consists of clearing an approximately 2.88-acre site of existing vegetation in preparation for installation of a solar photovoltaic (PV) system to provide electricity for the operation of the waste water treatment plant. The existing vegetation, primarily dense tree cover, would be removed using mechanical equipment and manual tools. The PV system would be installed on a ground-mounted racking system on piers that would be driven a maximum of eight (8) feet below ground surface (**Figure 4**). Vehicles used for vegetation removal and system installation would utilize low-impact rubber-wheels. Smaller trees, branches and shrubs will be masticated and spread over the site with the larger logs being removed from the site. Following the removal of vegetation, the area would be seeded with an indigenous low-height ground cover. Vegetation consists of common Sierra foothill species of pine, oak, buckbrush, Manzanita, and native and non-native herbaceous plants and grasses.

Grading is expected to occur throughout the approximately 2.88-acre project area to a maximum depth of 6 inches. A maximum of 300 piers will be percussion-driven throughout the project site. Each pier is 6 x 8.5 inches wide and 12 feet long.

The constructed PV system will be connected to the site's existing 2000-amp electrical switchgear system. The PV system will generate useable electricity using solar energy and will be interconnected to the Hangtown Creek Water Reclamation Facility (WRF) main electrical service in the north electrical room of the WRF.

Background:

The City of Placerville is proposing to install and operate a PV system at the WRF to reduce the amount of electricity purchased from Pacific Gas & Electric (PG&E). The project objectives are to generate sufficient electricity on-site through a renewable energy technology (solar photovoltaic panels) to allow the City to achieve an approximately 60% or greater reduction in the energy required for municipal wastewater treatment operations. A detailed analysis confirmed that the Solar PV project for the WRF will result in energy savings of approximately 1,385,000 kWh per year. During Year 1, this will result in projected electrical energy cost savings of approximately $166,000.

This energy efficiency project will significantly advance the City's mission of reducing its demand for traditional electricity generation thereby reducing its impact on the environment while providing improved services more efficiently.

The City is proposing to finance the project through the Small Community Grant and Clean Water State Revolving Fund Loan programs administered through the State Water Resources Control Board, Division of Financial Assistance.

Surrounding Land Uses and Setting: The site (see **Figure 3**) is bounded to the west by Hangtown Creek. It is bounded to the north by large lot single-family residential properties and accessory uses. To the east of the project area, the site is bounded by an unpaved parking and loading area and Coolwater Creek Road and Mallard Lane. To the south, the site is bounded by the WRF, being adjacent to the plant's Flow Equalization Basin.

Other Public Agencies Whose Approval is Required (e.g., permits, financing approval, or participation agreement):

State Water Resources Control Board, Division of Financial Assistance: Financing
California Department of Fish and Wildlife: Biological Resources Impact Review
City of Placerville-Engineering Division: Grading Permit
City of Placerville-Building Division: Construction Permit

List of figures:

Appendices:

PUBLIC REVIEW PERIOD

The Mitigated Negative Declaration (MND) will be circulated for a 30-day review period beginning on January 30, 2019 through February 28, 2019.

1. The Initial Study/ MND and project plan documents may be viewed at the Development Services Department, City Hall 2nd Floor, 3101 Center Street, Placerville, CA 95667 during business hours from 8:00 a.m. to 5:00 p.m., Monday through Friday. These documents may also be viewed from the City's website at: https://www.cityofplacerville.org/environmental-documents

2. Submittal of written comments regarding the information, analysis, and mitigation measures in the Initial Study/MND may be submitted to Pierre Rivas, City of Placerville, 3101 Center Street, CA 95667. Before the MND is adopted, City staff will revise the draft MND, if necessary, to reflect any concerns raised during the public review period. All written comments will be included as part of the final MND.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, as indicated by the checklist on the following pages.

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

DETERMINATION

On the basis of this initial evaluation, 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.

Pierre Rivas
Signature

January 22, 2019
Date

Pierre Rivas
Printed Name

City of Placerville
For

HCWRF SOLAR PV PROJECT LOCATION MAP

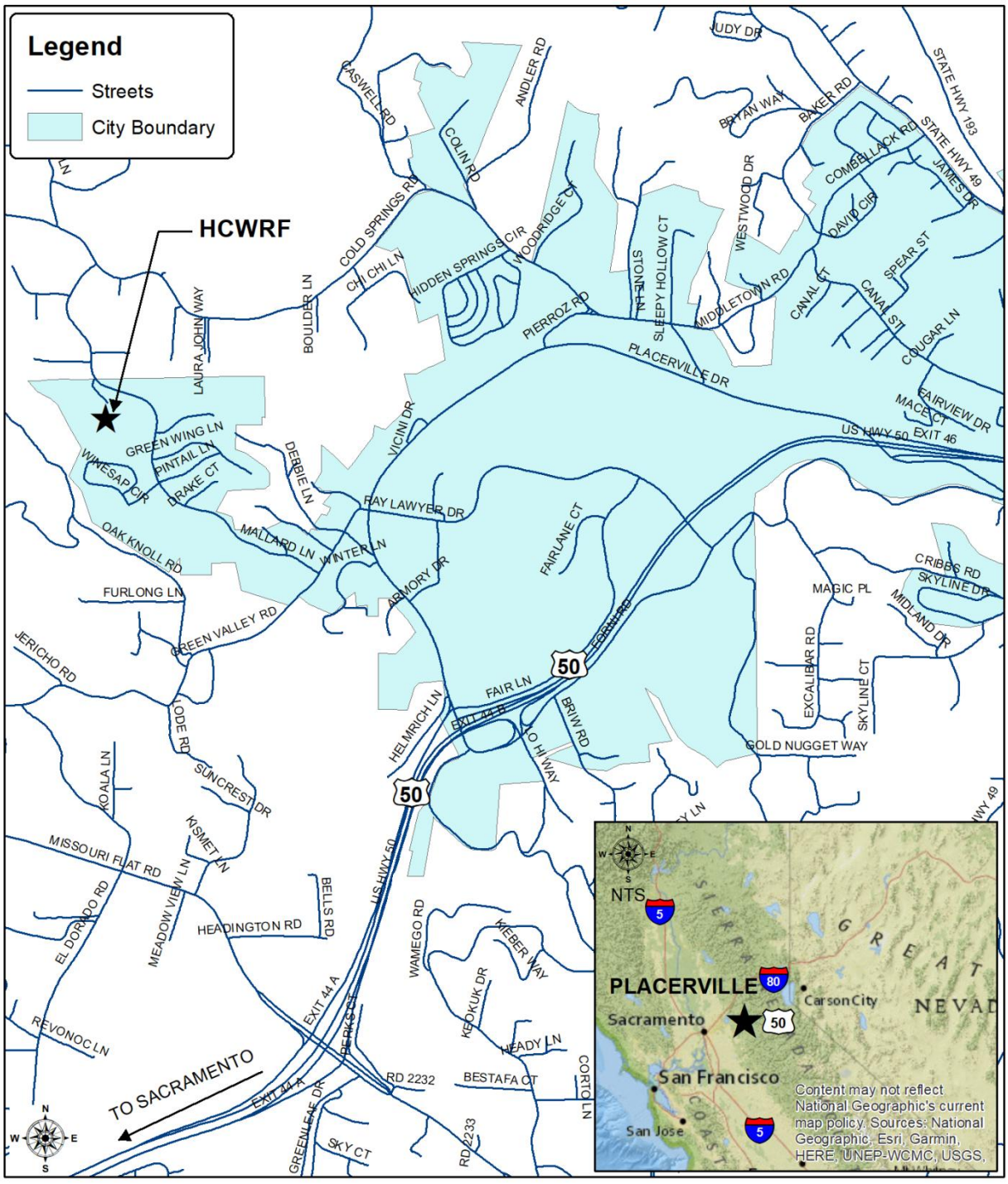


FIGURE 1

Figure 2: Hangtown Creek Water Reclamation Facility (WRF) Placerville 7.5 Minute Quadrange

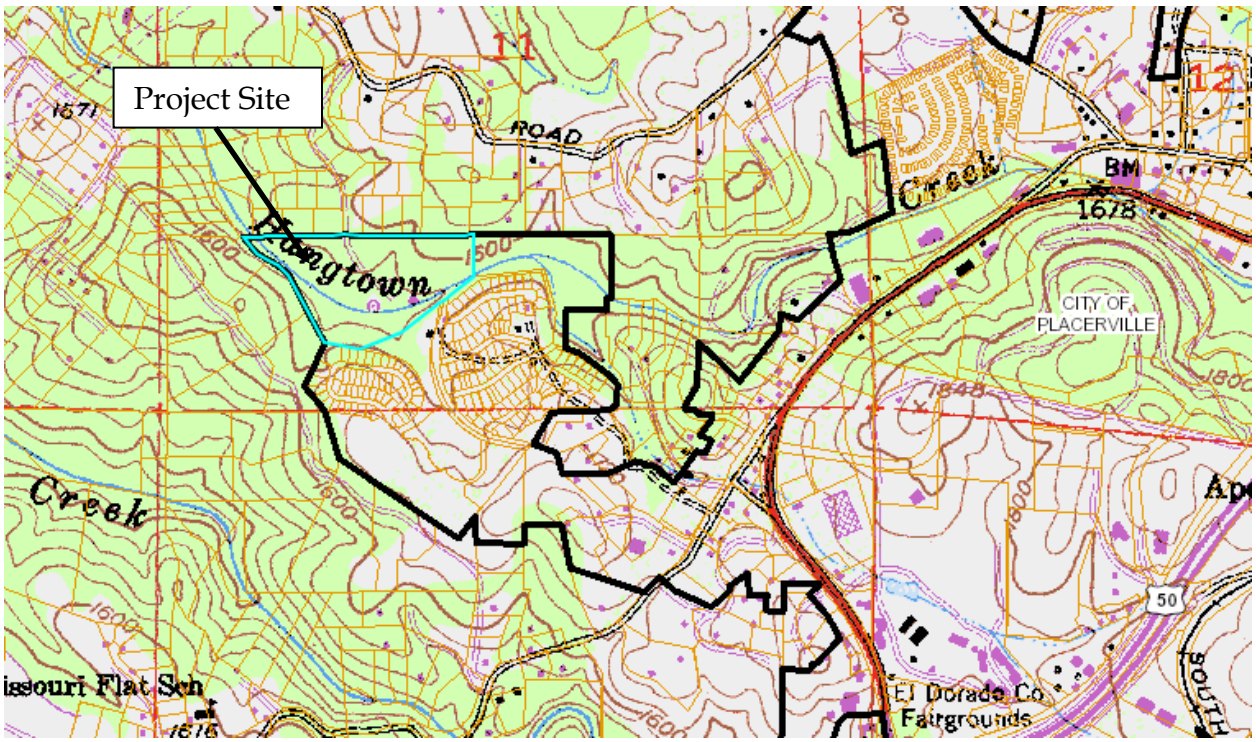


Figure 3: Aerial View of Proposed Solar Array

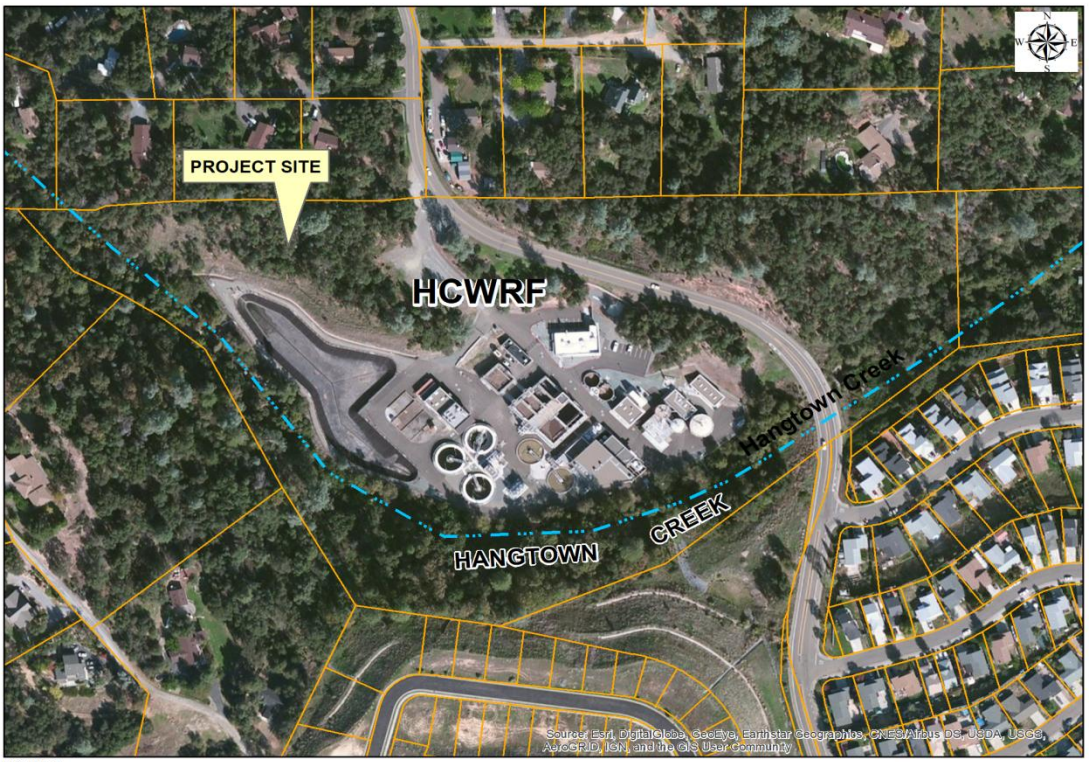
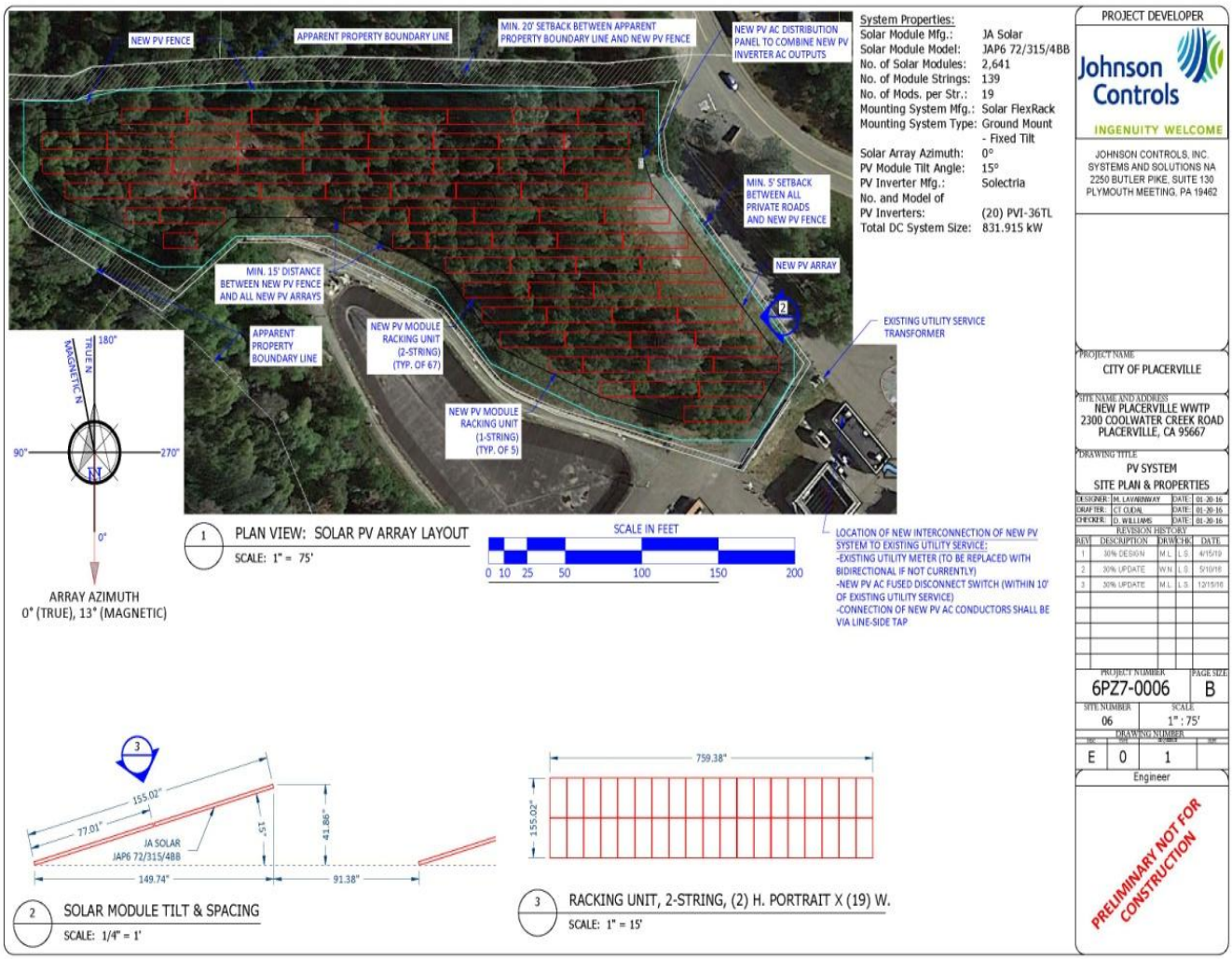


FIGURE 3
WRF PHOTOVOLTAIC PROJECT
AERIAL VIEW

Figure 4: Plan View Solar PV Array Layout



I. AESTHETICS. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Analysis

a) The City of Placerville General Plan Background Report identifies areas that are considered to be especially scenic and worthy of preservation. These areas include primary and secondary ridgelines and primary watercourses. The project site is below a General Plan-identified secondary ridgeline. The solar array would be located on a sloped area above the WRF Flow Equalization Basin (FEB) and below a secondary ridgeline. The only potential visual impacts to the ridgeline or view shed would be from the WRF itself.

b) Existing tree cover consists of mostly native foothill pine and oak trees, native shrubs, non-native grasses, and non-native invasive Himalayan blackberry and Yellow-star thistle. The site is densely covered by tree canopy and understory of shrubs and ground cover. Existing rock outcrops are not readily visible. The project site is not visible from any designated local or state scenic highway. The site is primarily visible from the existing WRF and therefore, the project will have no visual impact directly, indirectly or cumulatively.

c) The site is currently vacant. The visual character that exists is of its undeveloped heavily vegetated condition. Visual impacts resulting from the presence of construction vehicles or ground disturbance may occur during project construction activities; however, construction activities would be temporary. The project will not result in cumulative impacts on visual character or quality because the entire existing viewshed is primarily viewed from the existing WRF and is an expansion to the facility. The viewshed surrounding the project and will not contribute to a cumulative impact for the following reasons: the project will not substantially alter the existing landform, the project does not propose any development on any prominent ridge and the project has a similar bulk and scale of existing structures in the immediate area. Therefore, the project will not result in any adverse project or cumulative level effect on visual character or quality on-site or in the surrounding area.

d) Any outdoor lighting installed will be subject to City Zoning Ordinance requirements (Section 10-4-16) that lighting be located and/or shielded in a manner to ensure that the intensity and direction of lighting does not constitute a nuisance to abutting residential dwellings located adjacent to the project to the north or abutting street rights-of-way.

e) Based on the specifications of the solar PV panels to be used, findings for glare effects of solar PV panel installations, potential Project-related glare effects experienced by viewers from area roadways, pedestrian walkways, or other areas frequently used for outdoor activities on surrounding properties are anticipated to be none to minimal, and no significant glare impacts would occur. Based on available technical evidence evaluating the reflectivity of the solar PV panels, the proposed Project would not install highly reflective building materials that would result in a substantial increase in light or glare that would affect the surrounding area or that would produce reflective light that would create adverse disability or discomfort glare. The proposed Project would be in conformance with the City's Guidelines of Determining Significance for Lighting and Glare.

Mitigation Measures: None required.

Sources

Placerville Municipal Code, *Zoning Ordinance*
City of Placerville Topographical Map
City of Placerville *Development Guide*
California Department of Transportation Website "Scenic Highway Corridor Program"
http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/scenic_hwy.htm

II. AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. 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:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
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?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Analysis

a & b) The site is currently vacant. Neither the site nor its immediately adjacent parcels are under agricultural cultivation. The California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) maps indicate the site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The site is not enrolled in a Williamson Act contract. Therefore, the project will have no impact directly, indirectly or cumulatively.

c & d) Timber production, timberland as defined by Public Resources Code Section 12220(g), or agriculture uses have not been conducted in areas surrounding the site due to a lack of harvestable timber and established residential and public park improvements. The site is located within the PF (Public Facilities Zone) and the PF (Public Facility) General Plan Land Use designation. The project is an expansion to the existing WRF. Therefore, the project would not conflict with any zoning designations designed to preserve timber or agricultural resource preservation. Therefore, no impacts will occur from this project directly, indirectly or cumulatively.

e) The City of Placerville has no forest land nor does it have any timberland as described under Section II c & d) of this Initial Study. Therefore, no impacts to forest land or timberland will occur from this project directly, indirectly or cumulatively.

Mitigation Measures: None required.

Sources
California Resources Agency, *Farmland Mapping and Monitoring Program*
Public Resources Code
City of Placerville Municipal Code
City of Placerville General Plan

III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

Analysis

a, b, c & d) The El Dorado County Air Quality Management District (AQMD) in 2002 prepared a *Guide to Air Quality Assessment* intended to be used during the Initial Study phase of the CEQA process. The City of Placerville is located within the El Dorado County AQMD. AQMD boundaries are coterminous with the boundaries of El Dorado County. The City and the western portion of El Dorado County are located within the Mountain Counties Air Basin (MCAB). The MCAB is comprised of Plumas, Sierra, Nevada, Placer (middle portion), El Dorado, Amador, Calaveras, Tuolumne and Mariposa Counties.

In April 2014, the California Air Resources Board published area designations for state ambient air quality standards within the Mountain Counties Air Basin. Table 1 contains the attainment status for the Federal Clean Air Act Amendments' criteria air pollutants of 1- and 8-hour O_3 (ozone), PM_{10} (particulate matter, 10 microns), $PM_{2.5}$ (particulate matter, 2.5 microns), CO (carbon monoxide), NO_2 (nitrogen dioxide) and SO_2 (sulfur dioxide).

Table 1. Current Air Quality Standards – Mountain Counties Air Basin

Pollutant	Designation / Classification	
	Federal Standards	State Standards
1 -hour O_3	No Standard	Nonattainment
8 -hour O_3	Severe Nonattainment	Nonattainment
PM_{10}	Unclassified/Attainment	Nonattainment
$PM_{2.5}$	Attainment	Unclassified
CO	Unclassified/Attainment	Unclassified
NO_2	Unclassified/Attainment	Attainment
SO_2	Unclassified/Attainment	Attainment

The local El Dorado County Air Quality Management District (AQMD) assessment threshold of significance screening criteria for reactive organic gas (ROG) and oxides of nitrogen (NOx), which are precursors of ozone, is 82 pounds per day. According to AQMD's *Guide to Air Quality Assessment,* apartment development projects containing less than 350 dwelling units are assumed to not exceed the 82 pounds per day emissions thresholds for ROG and NOx. In addition, the AQMD's Guide further considers operational project activities for development projects that fall below the 82 pounds per day emission thresholds for ROG and NOx to have less than significant carbon monoxide (CO) and nitrogen dioxide (NO_2) impacts, and less than significant PM_{10} (particulate matter, 10 microns) and sulfur dioxide (SO_2) impacts.
Air quality impacts are only expected to occur during the construction phase of the project. As a solar PV project, no air emissions are expected during operation. As a "renewable" energy source, solar energy, the effect would be an expected decrease in the use of fossil fuels.

As recommended by the El Dorado County Air Quality Management District (AQMD), the City utilized the CalEEMod California Emissions Estimator model to estimate construction and operations emissions for the project (CalEEMod Version: CalEEMod.2016.3.2). Based on the model results shown below, the estimated:

- Construction emissions for NO_x and ROG are below the Thresholds of Significance for those pollutants.
- Construction emissions for CO and SO_2 are very low.
- Operations emissions for CO, NO_x, ROG, $PM_{2.5}$, PM_{10}, and SO_2 are zero

Although the model does not estimate O_3 emissions, it does estimate NO_x and ROG emissions. O_3 is a byproduct of NO_x, ROG and sunlight. As a result, the AQMD regulates O_3 emissions indirectly by regulating emissions of the O_3 precursors (NO_x and ROG), which are estimated to be below the corresponding Thresholds of Significance.

Based on the model results, resulting emissions from the project are considered insignificant.

Table 2 CalEEMod California Emissions Estimator Model Results

Pollutant	Federal Status	Nonattainment Rates	Thresholds of Significance	Construction Emissions (Tons/Year)	Operations Emissions (Tons/Year)
1-hour Ozone (O_3)	No standard				
8-hour Ozone (O_3)	Nonattainment	Severe			
Carbon Monoxide (CO)	Unclassified/ Attainment			0.7663	0
Oxides of Nitrogen (NO_x)	Unclassified/ Attainment		82 lbs/day	1.1029	0
Reactive Organic Gases (ROG)	No standard		82 lbs/day	0.1243	0
Volatile Organic Compounds (VOC)	No standard		82 lbs/day		
Lead (Pb)	Attainment				
Particulates less than 2.5 microns diameter ($PM_{2.5}$)	Attainment			0.0564	0
Particulates less than 10 microns diameter (PM_{10})	Unclassified/ Attainment			0.0644	0
Sulfur Dioxide (SO_2)	Unclassified/ Attainment			1.3700 e-003	0

Therefore, the impact of the project's emissions at the project site on regional air quality under thresholds b), c), and d), and on sensitive receptors, would be less than significant (not cumulatively considerable).

The AQMD has developed a rule (Rule 223-1, Fugitive Dust) to limit the quantity of fugitive dust emissions from construction, and construction related activities. Developing the site for installation of the solar PV system is expected to generate short-term inhalable particulate matter or fugitive dust. This impact is considered potentially significant. The following mitigation measure is expected to minimize construction related fugitive dust emissions to a less than significant level.

Mitigation Measures:

AQ-1: The City shall comply with AQMD Rule 223-1 to reduce construction dust through water application, stabilizing exposed soil and covering loads.

Timeframe for Implementation: During pre-construction and construction phases.
Responsibility for Implementation: City of Placerville
Oversight of Implementation: Engineering Department and the Building Division of the Development Services shall confirm that the grading plan and building plans are in compliance with AQMD Rule 223-1.

The AQMD has developed a rule regarding the discharge to the atmosphere of volatile organic compounds (VOC's) caused by the use or manufacture, mixing, storage and application of Cutback or Emulsified asphalt used for paving, road construction or road maintenance. It is called Rule 224 - Cutback and Emulsified Asphalt Paving Materials. Development on the site does not involve any use of paving of driveways or surfaces that would have the potential to discharge VOC into the atmosphere. Therefore, the project's expected VOC discharge to the atmosphere is less than significant.

e) Project grading, construction and operations activities are not expected to create objectionable odors. Therefore, the project will not cause objectionable odors affecting a substantial number of people either directly, indirectly and cumulatively.

Sources

El Dorado County Environmental Management Department Air Quality Management District
El Dorado County Air Pollution Control District, *Guide to Air Quality Assessment, 2002*
CalEEMod Version: CalEEMod.2016.3.2 for Solar Photovoltaic (PV) at the WWTR – El Dorado-Mountain County, Annual model results, May 31, 2018

IV. BIOLOGICAL RESOURCES. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
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?	☐	☐	☒	☐
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 US Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Analysis

a) The project site is located in a developed, industrial site and is surrounded by existing residential uses and public streets. No known endangered, threatened or rare species or their habitats are present on the site or in the immediate project vicinity (General Plan 1990).

Site visit by City staff on January 26 and July 23, 2018 revealed the following plant and animal species:

Yellow star thistle	Foothill or Grey pine	Blue oak	coyote bush
Non-native grasses	Himalayan blackberry	Interior live oak	Ponderosa pine
Buck brush	Manzanita	Turkey	Grey fox
Scrub jay	Robin	ground squirrel	Mule Deer

Raptors such as red tailed hawks, owls and turkey vultures are known to exist within the City. However, no raptors or raptor nests were observed by City staff during its site visit. Raptors are protected under federal law. Therefore, a potential exists that site development could disturb nesting raptor species and other nesting birds that may utilize mature oaks and pines within the project site and adjacent land if they are present during construction activities. The following mitigation measure is expected to minimize potential impacts to nesting raptor and other nesting bird species to a less than significant level.

Mitigation Measures:

BIO-1: If project-related activities are scheduled during the nesting season (February 1 to August 31), a focused survey for nests shall be conducted by a qualified biologist within three (3) days prior to the beginning of project-related activities. The qualified biologist shall survey the area for all nests within a minimum 500-foot radius around the project area. The results of the survey shall be made available upon request. If an active nest is found, the qualified biologist shall establish a non-disturbance buffer sized appropriately for the particular species and level of disturbance around the nest. The buffer shall be maintained until the nest is no longer active. If a lapse in project-related work of fifteen (15) days or longer occurs, another focused survey will be required before project work can be reinitiated.

Timeframe for Implementation: Within three (3) days prior to the contractor mobilizing for construction activities
Responsibility for Implementation: Engineering Department and Qualified Biologist. Biologist to provide survey results memo to the Engineering Department.
Oversight of Implementation: Engineering Department

b & c) No wetlands, marshes, vernal pools, or coastal areas are present on the project site. Hangtown Creek is not part of the project area. There is no riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or the US Fish and Wildlife Service present on or adjacent to the site. In the absence of those on-site or near-site resources, no direct or indirect project-related impacts to any waters of the United States are anticipated. Therefore, no impacts will occur from this project directly, indirectly or cumulatively.

d) There are no known migratory fish or wildlife species, established native resident or migratory wildlife corridors, or native wildlife nursery sites located on the previously developed subject site that is surrounded by developed residential and the existing industrial wastewater treatment facility. Therefore, no impacts will occur from this project directly, indirectly or cumulatively.

e) To develop the site with the solar panel array, trees and shrubs on the site would be expected to be removed. However, the project does not involve a residential subdivision of land. The project therefore it is not subject to City Code Section 8-13-4, the City's Woodland Alteration Permit and Plan regulations.

However, there are two General Plan goals and three policies contained within the Natural, Cultural, and Scenic Resources that do address vegetative cover within Placerville:

Goal D: To protect Placerville's natural vegetation and diverse wildlife.

Policy 3 of Goal D: New development shall be sited to protect native tree species, riparian vegetation, important concentrations of natural plants, and important wildlife habitat, to minimize visual impacts and to provide for continuity of wildlife corridors.

Policy 9 of Goal D: The City shall seek to protect and manage Placerville's tree cover to maximize ecological and aesthetic values consistent with the reasonable economic enjoyment of private property. To this end, the City shall adopt and enforce a Historical Tree Ordinance.

Goal I: To protect and enhance Placerville's community character and scenic resources.

Policy 4 of Goal I: The City shall condition development approvals to protect natural features such as rock outcrops and trees.

The City of Placerville Development Guide, as amended (2016), contains preservation and protection guidelines for trees, particularly oaks, pines and other native species within hillside areas. These guidelines were developed to implement the City of Placerville General Plan goals and policies related to trees, tree cover and open space. The solar PV project is being developed within the existing wastewater treatment facility site and is not considered an expansion, nor is the project a residential subdivision subject to the City's Woodland Conservation Ordinance.

f) The project site is not subject to any habitat conservation plans or any other regional plans. Therefore, the proposed project would not conflict with the provisions of any adopted local or regional conservation plans; and would not have an impact directly, indirectly or cumulatively.

Sources

City of Placerville Topographic Map (1982)
Placerville Municipal Code, *Zoning Ordinance*
Placerville *Development Guide*
Department of Fish & Game California Natural Diversity Database website:
www.dfg.ca.gov/biogeodata/cnddb/
Biological Resources Study for the Hangtown Creek Water Reclamation Facility, Development Services Department, October 2018
Small Community Grant/Clean Water State Revolving Fund Loan SOLAR PHOTOVOLTAIC (PV) for the WWTP Project, October 2018

V. CULTURAL RESOURCES. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Analysis

a) A search of the National Register of Historic Places, the California Register and the City's Historic Resources Inventory revealed that the site or vicinity is not listed on these cultural and historic resource inventories. A cultural resources inventory report was prepared by InContext under contract with the City of Placerville for the Hangtown Creek Water Reclamation Facility, Clean Water State Revolving Fund Loan, Solar Photovoltaic Facility in the City of Placerville. This study was conducted in compliance with the California Environmental Quality Act and Section 106 of the National Historic Preservation Act. This report presents the methods and results of a records search and literature review, Section 106 outreach, a pedestrian survey, and archival research. The City of Placerville conducted early consultation with local tribal cultural resources [Pub. Res. Code section 5020.1(k), 5024.1(c)] in their CEQA document.

CEQA requires public or private projects financed or approved by public agencies to assess the effects of the project on cultural resources that might qualify as being historical, as that term is defined by statute. (See Public Resources Code, Section 21084.1.) Potentially historical resources could include buildings, sites, structures, or objects, each of which may have historical, architectural, cultural, or scientific importance. CEQA requires that alternative plans or mitigation measures be considered if a project results in an effect that may cause a substantial adverse change in the significance of an historical resource. Prior to the assessment of effects or the development of mitigation measures, it must first be determined whether a particular resource is "historical." The steps that are taken in a cultural resources investigation for CEQA compliance are as follows:

- Evaluate whether potentially historical resources are in fact historical
- Identify potential historical resources
- Evaluate the effects of a project on all historical resources

CEQA guidelines define three ways that a property can qualify as a significant historical resource for the purposes of CEQA review:

1) if the resource is listed in or determined eligible for listing in the California Register of Historical Resources (CRHR);

2) if the resource is included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements of section 5024.1(g) of the Public Resources Code unless the preponderance of evidence demonstrates that it is not historically or culturally significant; or
3) the lead agency determines the resource to be historically significant or significant in the architectural, educational, social, political, military, or cultural annals of California, as supported by substantial evidence in light of the whole record (California Code of Regulations, Title 14, Division 6, Chapter 3, section 15064.5).

The CRHR was created by the State Legislature in 1992. The eligibility criteria for the CRHR are intended to serve as the definitive criteria for assessing the significance of potential historical resources for purposes of CEQA. For a potential historical resource to be eligible for listing in the CRHR, it must be significant at the local, state, or national level under one or more of the following four criteria:

- Is associated with lives of persons important in our past;
- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- 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; or
- Has yielded, or may be likely to yield, information important in prehistory or history.

Historical resources automatically listed in the CRHR include those historic properties listed in, or formally determined eligible for listing in, the National Register. Under federal regulations, a project has an effect on a historic property when the project could alter the characteristics of the property that may qualify the property for inclusion in the National Register, including alteration of location, setting, or use. A project may be considered to have an adverse effect on a historic property when the effect may diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Adverse effects on historic properties include, but are not limited to:

- Physical destruction or alteration of all or part of the property;
- Isolation of the property from, or alteration of, the property's setting when that character contributes to the property's qualifications for listing in the National Register;
- Introduction of visual, audible, or atmospheric elements that are out of character with the property or that alter its setting;
- Neglect of a property resulting in its deterioration or destruction; or
- Transfer, lease, or sale of the property (36 CFR 800.9).

In that the site does not contain cultural or historic resources listed on the National Register of Historic Places, the California Register or the City's Historic Resources Inventory, potential development resulting from the project on the Project Location is considered less than significant.

b) The City notified California Native American tribes that are traditionally and culturally affiliated with the geographic area of the proposed project, and who had requested notification of proposed projects by the City per Section 21080.3.1 of the Public Resources Code. The United Auburn Indian Community (UAIC) requested that if tribal cultural resources are identified within the project area, that tribal monitors be present for all ground disturbing activities. The UAIC stated their preference is to preserve tribal cultural resources in place and avoid them whenever possible.

No known archaeological resources were identified in the General Plan for the project site. Therefore, the project would not likely impact an archaeological resource. However, there is the possibility of accidental archaeological discoveries during construction-related ground-disturbing activities. The maximum area of all possible ground-disturbing activities is limited to approximately 2.88 acres. Within the Area of Potential Effects (APE), areas of direct impact will be restricted to the installation of piers to a depth of 8 feet below current ground surface. All excavated soil will remain on the property.

Although no cultural resources were identified as a result of the cultural resources inventory report the location is considered moderately sensitive for the presence of Native American associated resources. "Combined with the depth and quantity of ground disturbance activities proposed during pier excavations, the likelihood for uncovering buried resources is also considered moderate."

This impact is considered potentially significant. To address unanticipated and accidental archaeological discoveries, the following mitigation measure is expected to minimize this potential impact to a less than significant level:

Mitigation Measures:

CR-1: If during the course of implementing the project, cultural resources (i.e., prehistoric sites, historic sites, and/or isolated artifacts) are discovered, work shall be halted immediately by the development contractor. Temporary orange fencing shall be placed by the development contractor around a culturally significant discovery to prevent unnecessary equipment movement inside these areas during and after a discovery. The City of Placerville Engineering Department and the Cultural Resource Manager of the United Auburn Indian Community shall be notified immediately. The development contractor, their agents or assigns shall retain a professional archaeologist, or qualified cultural resource specialist that meets the Secretary of the Interior's Standards and Guidelines for Professional Qualifications in archaeology and/or history. The archaeologist or qualified cultural resource specialist and representatives from the United Auburn Indian Community (UAIC) will evaluate the significance of any unanticipated discovery and make recommendations for further evaluation and treatment as necessary.

The City shall consider mitigation recommendations presented by a professional archaeologist that meets the Secretary of the Interior's Standards and Guidelines for Professional Qualifications in archaeology and/or history for any unanticipated discoveries. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. The City shall be required to implement any mitigation necessary for the protection of cultural resources. For any recommendations made by UAIC or other interested Native American Tribes which are not implemented, a justification for why the recommendation was not followed will be provided into the project record.

Timeframe for Implementation: During grading and construction activities
Responsibility for Implementation: City of Placerville and qualified archaeologist
Oversight of Implementation: Engineering Department

c) No known paleontological resources or unique geological features were identified in the General Plan for the project site. There is no indication from soil and geologic information received from the National Resource Conservation Service for this project or the State of California Geologic maps that paleontological resources or unique geologic features exist on the site. The project would not likely impact a paleontological resource or unique geologic features. However, there is the possibility of accidental paleontological discoveries during construction-related ground-disturbing activities. This is considered potentially significant. The following mitigation measure is expected to minimize this potential impact to a less than significant level.

Mitigation Measures:

CR-2: If, during the course of site development, any paleontological resources (fossils) are discovered, the project contractor shall notify and the City of Placerville Engineering Department. At that time, the City will coordinate any necessary investigation of the discovery with a qualified paleontologist.

The City shall consider the mitigation recommendations of the qualified paleontologist for any unanticipated discoveries of paleontological resources. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. The City shall be required to implement any mitigation necessary for the adequate protection of paleontological resources.

Timeframe for Implementation: During grading and construction activities
Responsibility for Implementation: Developer and qualified paleontologist
Oversight of Implementation: Development Services – Engineering and Planning Divisions

d) There is no indication from the City's General Plan or Historic Resources Inventory that a cemetery or burial area existed on the site. However, in the unlikely event human remains are discovered during ground-disturbing activities, the following mitigation measure is expected to minimize this potential impact to a less than significant level.

Mitigation Measures:

CR-3: If, during the course of development of the site, human remains are discovered, all work shall be halted immediately on site. The project contractor shall notify the City of Placerville Engineering Department. The project developer shall also contact the El Dorado County Coroner to investigate and determine that no investigation of the cause of death is required. If the Coroner determines the remains are those of a Native American origin, the coroner must notify the California Native American Heritage Commission, who will notify and appoint a Most Likely Descendent (MLD). The MLD will work with a qualified archaeologist to decide the proper treatment of the human remains and any associated cultural objects.

Timeframe for Implementation: During grading and construction activities
Responsibility for Implementation: City of Placerville
Oversight of Implementation: Engineering Department

Sources

Cultural Resources Inventory Report for the Hangtown Creek Reclamation Facility Clean Water State Revolving Fund Loan Solar Photovoltaic Facility, InContext, May 2018
City of Placerville, General Plan
Correspondence with United Auburn Indian Community
State of California, Code of Regulations
State of California, Public Resources Code
United States Geological Survey, 1950 Placerville Quadrangle

VI. GEOLOGY AND SOILS. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Analysis

a - i, ii, iii, iv) No Impact. Per the California Department of Conservation, Division of Mines and Geology, there are no Alquist-Priolo Earthquake Fault Zones within the City or El Dorado County. Therefore, the project will have no impact directly, indirectly or cumulatively.

A project site may experience the effects of seismic ground shaking based on the proximity of the site to an earthquake fault, the intensity of the seismic event, and the underlying soils. Although no active faults or Earthquake Fault Zones are located on the project site, an inactive geologic fault is located within one mile east of the project site. This pre-Quaternary fault called "Melones" is not expected to involve fault rupture, seismic shaking, ground failure or landslides due to its geologic inactivity. No impacts are anticipated.

b, c) Per the Soil Survey of El Dorado Area, California (Sheet No. 34), the on-site soil type is Diamond Springs – very sandy loam (DfD) 15 – 30% slope. Surface runoff is medium to rapid, and the erosion hazard is high. This soil type is used for woodland and limited range.

The following mitigation is expected to minimize the potential impact of slight and moderate to high soil erosion to a less than significant level.

Mitigation Measures:

GEO-1 All grading activities on the project site for placement of the solar panel support structures shall conform to the City's Grading, Erosion and Sediment Control regulations (Chapter 7, Title VIII of the City Code) and the El Dorado County Resource Conservation District's Erosion Control Requirements and Specifications for all grading activities. A grading plan shall be prepared and reviewed by the City Engineering Department prior to beginning any grading work. Final grading plans must be approved by the City Engineer prior to any onsite grading.

Timeframe for Implementation: During grading and construction activities
Responsibility for Implementation: City of Placerville – Engineering Department
Oversight of Implementation: Engineering Department – City Engineer.

d) Expansive soils increase in volume when they absorb water and then shrink upon drying out. Soils with high clay content are subject to soil expansion. Table 18-1-B of the Uniform Building Code establishes numerical expansion indices for soil types ranging from very low to very high. Any soil identified in the foundation investigation to have an expansion index greater than 90 (medium) would require specific engineering analysis as required within the Uniform Building Code.

The Soil Survey of El Dorado - Table 6, lists the shrink-swell potential of each soil series found in the County. The amount of clay within the soil series determines the shrink-swell potential. Soils series with low to moderate shrink-swell potential provide sites adequate for placing structures. Review of the Soil Survey of El Dorado County indicates that the on-site soil type (DfD) has a low shrink-swell potential. Based upon this review, the impact from expansive soils is less than significant.

e) The proposed solar project does not involve the installation or use of a septic tank subsurface disposal system. Therefore, on-site wastewater disposal will not be impacted directly, indirectly or cumulatively.

Sources

City of Placerville General Plan (1990)
United States Department of Agriculture, Soil Conservation Service and Forest Service *Soil Survey of El Dorado County* (April 1974)
Division of Mines and Geology Special Publication 42, *Fault-Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act With Index to Earthquake Fault Zone Maps.*
California Building Code

VII. GREENHOUSE GAS EMISSIONS. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

Analysis

a) Less Than Significant with Mitigation Incorporated. Project construction would temporarily generate greenhouse gas (GHG) emissions through the use of fossil fuels during construction, thus potentially contributing to cumulative impacts related to global climate change. The primary land-use related greenhouse gases (GHG) are carbon dioxide (CO_2), methane (CH_4) and nitrous oxides (N_2O). Estimated emissions are expressed in annual metric tons of carbon dioxide equivalent (CO_2e) units.

The project is a solar photovoltaic system that involves installation of a long-term renewable energy source (solar photovoltaic system). The solar photovoltaic system would allow the City to generate sufficient electricity on-site to achieve an approximately 60% reduction in the electricity purchased from PG&E for municipal wastewater treatment. The project adjoins the existing waste water treatment plant and is bounded on the north by existing residential uses and Mallard Lane to the east.

Neither the El Dorado County Air Quality Management District nor the City has adopted GHG emission thresholds for development projects. An assessment of the project's potential GHG emissions during construction was conducted using the California Emissions Estimation Model (CalEEMod) version 2016.3.2, based on the following assumptions: 1) The maximum development potential assumptions of this Initial Study; 2) An approximate eight-month construction period occurring in 2017; 3) Operation of the project beginning in 2019 ; and 4) An assumed 30-year life of the project.

As shown in Table 3 below, the estimated metric tons of carbon dioxide equivalent (CO2e) units generated by project construction is 118.9124 metric tons. Because project-related construction emissions are confined to a relatively short period of time in relation to the overall life of the project, construction emissions are amortized to determine the annual construction related GHG emissions over the life of the project. When amortized over a 20-year period (the assumed life of the project), CO_2e construction emissions equal 5.946 metric tons per year. The emissions shown in table below are rounded to whole numbers.

Table 3
Estimated Construction Emissions of Greenhouse Gases

Year	Annual Emissions (Carbon Dioxide Equivalent (CO_2e))
2019	119 metric tons
Total	**119 metric tons**
Amortized over 20 years	**6 metric tons per year**

See Appendix 2 for CalEEMod Results.

Operational Emissions include area sources, energy use, solid waste, water use, and transportation emissions. The estimated metric tons of carbon dioxide equivalent (CO_2e) units generated by the operation of the solar photovoltaic system is 0 metric tons.

As shown below in Table 4, the net combined construction and operational emissions at project completion would be 119 metric tons before mitigation. The emissions shown are rounded to whole numbers. Full results are shown in Appendix B.

Table 4
Combined Annual Emissions of Greenhouse Gases Before Mitigation

Emission Source	Annual Emissions (CO_2e)
Project Construction	119 metric tons
Operational Emissions	0 metric tons
Total	**119 metric tons**

Estimated annual GHG emissions associated with the proposed solar project with the above mitigation incorporated are summarized in Table 5. As shown in the table, the annual GHG emissions associated with the potential solar project would be 119 CO_2e with mitigation incorporated.

Table 5
Combined Annual Emissions of Greenhouse Gases After Mitigation

Emission Source	Annual Emissions (CO_2e)
Project Construction	119 metric tons
Operational Emissions	0 metric tons
Total	**119 metric tons**

The following mitigation measures are incorporated into the project to reduce construction emissions of the proposed solar photovoltaic project on the project site.

Mitigation Measures:

GHG-01: Only low- and non-VOC-containing paints, sealants, adhesives, and solvents shall be utilized in the construction of the Project.

Timeframe for Implementation: During construction activities
Responsibility for Implementation: City of Placerville
Oversight of Implementation: Engineering Department

Sources:
California Emissions Estimation Model (CalEEMod) version 2016.3.2
California Building Code
City of Placerville City Code
El Dorado County Air Pollution Control District, *Guide to Air Quality Assessment. February 2002*

VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:

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

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

Analysis

a) The project use and construction would not involve transport, use or store hazardous materials. Therefore, the project will have no impact directly, indirectly or cumulatively.

b & c) The project use and construction would not involve transport, use or store hazardous materials. Therefore, the project will have no impact directly, indirectly or cumulatively.

d) The project site is not included on a list of hazardous materials sites compiled by the California Department of Toxic Substances Control pursuant to Government Code Section 65962.5. Therefore, the project will have no impact directly, indirectly or cumulatively.

e) Zoning for the site is PF (Public Facility). The site is not located within the Placerville Airport Influence Area. Therefore, the project will have no impact directly, indirectly or cumulatively to the Placerville Airport or the Placerville Airport Land Use Compatibility Plan.

f) There are no private airstrips within the project vicinity. Therefore, the project will have no impact directly, indirectly or cumulatively.

g) The proposed solar PV project will not impair implementation of, or physically interfere with, the City of Placerville's Emergency Response Plan. Therefore, the project would have no impact directly, indirectly or cumulatively.

h) Per the Placerville Very High Fire Hazard Area map dated November 17, 2008, the project site is located in the CAL FIRE Very High Fire Severity Zone. Construction of the solar facility requires the removal of most of the existing vegetation on the site reducing or eliminating potential fire fuels.

Migration Measures: None required.

Sources

Placerville Zoning Ordinance
City of Placerville Emergency Response Plan
California Government Code
Placerville Airport Land Use Compatibility Plan, adopted June 2012.
Department of Forestry and Fire Prevention, *Placerville Very High Fire Hazard Area Map*, 2008
California Building Code

IX. HYDROLOGY AND WATER QUALITY. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e) 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?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒

i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j)	Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami or mudflow?	☐	☐	☐	☒

Analysis

a, f) Grading and construction associated with the proposed solar array would require temporary disturbance of surface soils and removal of vegetative cover which could potentially result in erosion and sedimentation on the site. Erosion and sedimentation constitute potential water quality impacts attributable to construction activities. Increased sedimentation in the existing surface drainage ditch is possible if runoff from the construction site is not managed properly.

Short-term storm water pollutant discharges would be mitigated through compliance with the National Pollution Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), as well as City of Placerville Grading, Erosion and Sediment Control regulations (City Code Section 8-7-1 to 8-7-35) resulting in a less than significant impact. Permittees must verify compliance with permit requirements by implementing Best Management Practices, monitoring runoff quality, maintaining records, and filing periodic reports.

Development of the project site would disturb more than one acre and would therefore, be required to obtain coverage under the Construction General Permit. Compliance with the permit requirements would prevent sedimentation and soil erosion through development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) and periodic inspections by City staff. A SWPPP is a written document that describes the construction operator's activities to comply with the requirements in the NPDES permit. Required elements of a SWPPP include (1) site description addressing the elements and characteristics specific to the project site; (2) descriptions of Best Management Practices (BMPs) for erosion and sediment controls; (3) BMPs for construction waste handling and disposal; (4) implementation of approved local plans; and (5) proposed post-construction controls, including a description of local post-construction erosion and sediment control requirements. The SWPPP is intended to facilitate a process whereby the operator evaluates potential pollutant sources at the site and selects and implements BMPs designed to prevent or control the discharge of pollutants in storm water runoff.

During the construction period, the construction contractor would use a series of BMPs to reduce erosion and sedimentation. These measures may include the use of gravel bags, silt fences, check dams, hydro-seeding, and soil binders. The construction contractor would be required to operate and maintain these controls throughout the duration of on-site construction activities. In addition, the construction contractor would be required to maintain an inspection log and have the log on site to be reviewed by the City and representatives of the Regional Water Quality Control Board (RWQCB). Incorporation of these requirements as mitigation measures HYD-1 through HYD-3 is designed to track both standard requirements and mitigation measures as part of the project's Mitigation Monitoring and Reporting Plan or Program (MMRP). With implementation of the standard construction-related SWPPP BMPs discussed above, water quality impacts from runoff during temporary construction activities and subsequent long-term operational activities would be less than significant.

Mitigation Measures:

HYD-1: Prior to the issuance of a grading permit by the City of Placerville, the project City shall file a Notice of Intent (NOI) with the State Water Resources Control Board to be covered under the General Construction Permit.

Timeframe for Implementation: Prior to issuance of grading permit
Responsibility for Implementation: City of Placerville
Oversight of Implementation: Engineering Department and the Central Valley RWQCB

HYD-2: Prior to the issuance of a grading permit by the City to the contractor, the City shall require that the project developer prepare and submit a SWPPP to and receive approval from the City Engineer. The SWPPP shall include a surface runoff management plan and an erosion control plan citing specific measures to control on- site and off-site erosion during the entire grading and construction period until the site is stabilized In addition, the SWPPP shall emphasize structural and nonstructural BMPs to control sediment and non-visible discharges from the site.

Timeframe for Implementation: Prior to issuance of grading permit
Responsibility for Implementation: City of Placerville-
Oversight of Implementation: Engineering Department – City Engineer

HYD-3: The City of Placerville shall be responsible for performing and documenting the implementation of the BMPs identified in the SWPPP. Weekly inspections shall be performed on sediment control measures called for in the SWPPP. Monthly reports shall be maintained by the Contractor and available for City inspection. In addition, the Contractor would also be required to maintain an inspection log and have the log on site available for review by the City of Placerville and the representatives of the RWQCB.

Timeframe for Implementation: Prior to issuance of grading permit
Responsibility for Implementation: City of Placerville
Oversight of Implementation: Engineering Department – City Engineer and the Central Valley RWQCB

b) Maintenance of the proposed solar PV system does require a water supply. However, the City does not propose the use of well water. The project site is sloped and is not considered a ground water recharge area. Drainage from the site flows to Hangtown Creek. Therefore, there are no impacts to groundwater or to a groundwater recharge area. Impacts associated with ground water would less than significant.

c, d, e) Water drainage movements across the project area are generally from north to south, down slope to an existing drainage ditch. Site drainage due to existing and surrounding topography is expected to remain unchanged following installation of the solar array system. Clearing, grubbing, and vegetation clearing would include specific design BMPs to ensure that no storm water runoff generated on site (i.e., runoff from solar facility site) would be allowed to leave the site without erosion and sedimentation controls . Adherence to and implementation of mitigation measures HYD-4 andHYD-5 would reduce impacts to a less than significant level.

Mitigation Measures:

HYD-4: Prior to issuance of a grading permit for the project, a project Drainage Report shall be prepared and submitted to the City Engineer for approval. The Drainage Report shall include all aspects of drainage as discussed herein. The approved Drainage Report will serve as a design guide for the project above ground drainage system(s). The results of the Drainage Report will be considered in final design and construction requirements of the storm drain system for the proposed development.

HYD-5: Erosion control measures and re-vegetation of the site shall be designed and included in the final grading plan submittal. Drainage patterns shall be maintained and constructed to keep post-development flows

leaving the site at or below pre-development levels. Drainage calculations will be required to show that these conditions are being met. Changes to historical and existing drainage patterns will not be allowed without specific City approval.

Timeframe for Implementation of HYD-4 and HYD-5: Prior to issuance of grading permit
Responsibility for Implementation: City of Placerville
Oversight of Implementation: Engineering Department

g, h, i) Per the National Flood Insurance Program, the site is located on Map Number 06017C0775E, Panel 0775E, effective September 26, 2008, the site is shown as being in Zone X: "Areas of 0.2% chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood" not identified as being within the 100-year flood zone area. Therefore, the project will have no impact directly, indirectly or cumulatively.

j) The site is not located close to an inland body of water or the Pacific Ocean. Therefore, the proposed project would not be impacted by a seiche or tsunami.

Per the City's Health and Safety Element, the project site is not within a seismic hazard area. Therefore, the site would not be impacted by mudflows.

Sources

Placerville Municipal Code
National Pollution Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (current edition), adopted by the State Water Resources Control Board
F.E.M.A. Flood Insurance Rate Map, Community Map Number 06017C0752E, Panel 0775-E (September 26, 2008)

X. LAND USE AND PLANNING. Would the Project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Analysis

a) Physical division of the community typically occurs by the construction of a major highway, a storm channel, the closing of roads or the construction of utility transmission lines. The construction of the proposed solar PV facility is directly adjacent to and within the existing WRF and does not involve constructing of a highway, storm channel, or the closing of roads or the construction of utility transmission lines. No physical divisions have been identified. No impacts are therefore anticipated.

b) The site is designated and zoned PF (Public Facilities) by the City of Placerville General Plan Land Use Map and the Zoning Map. The solar PV project is located within the existing facility site and does not involve the acquisition of additional property.

c) The proposed project would not conflict with any applicable adopted habitat conservation plan or natural community conservation plan since no such plans exist within the City. In the absence of an applicable habitat conservation plan or natural community conservation plan, the project would not result in any conflicts with an adopted habitat conservation plan or natural community conservation plan. Therefore, the project will have no impact directly, indirectly or cumulatively.

Mitigation Measures: None required.

Sources

City of Placerville *General Plan* (1990)
Placerville Municipal Code, *Zoning Ordinance*

FIGURE 5

PLACERVILLE GENERAL PLAN LAND USE MAP

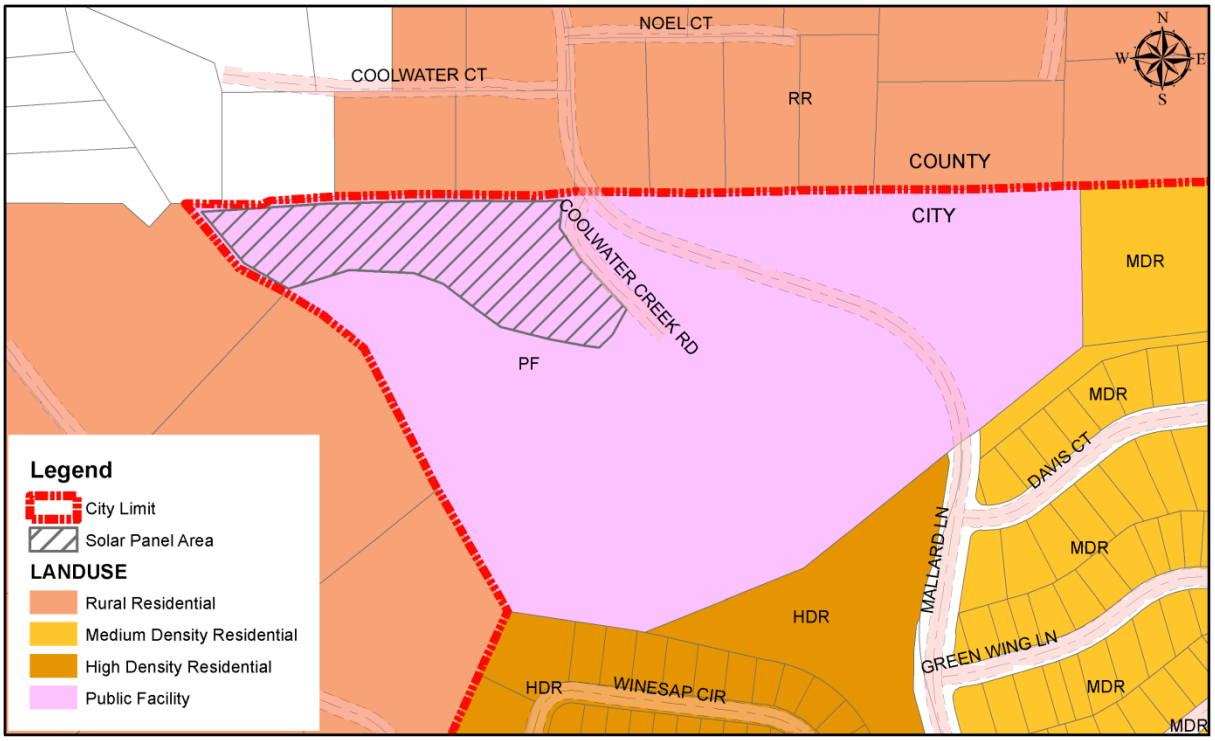
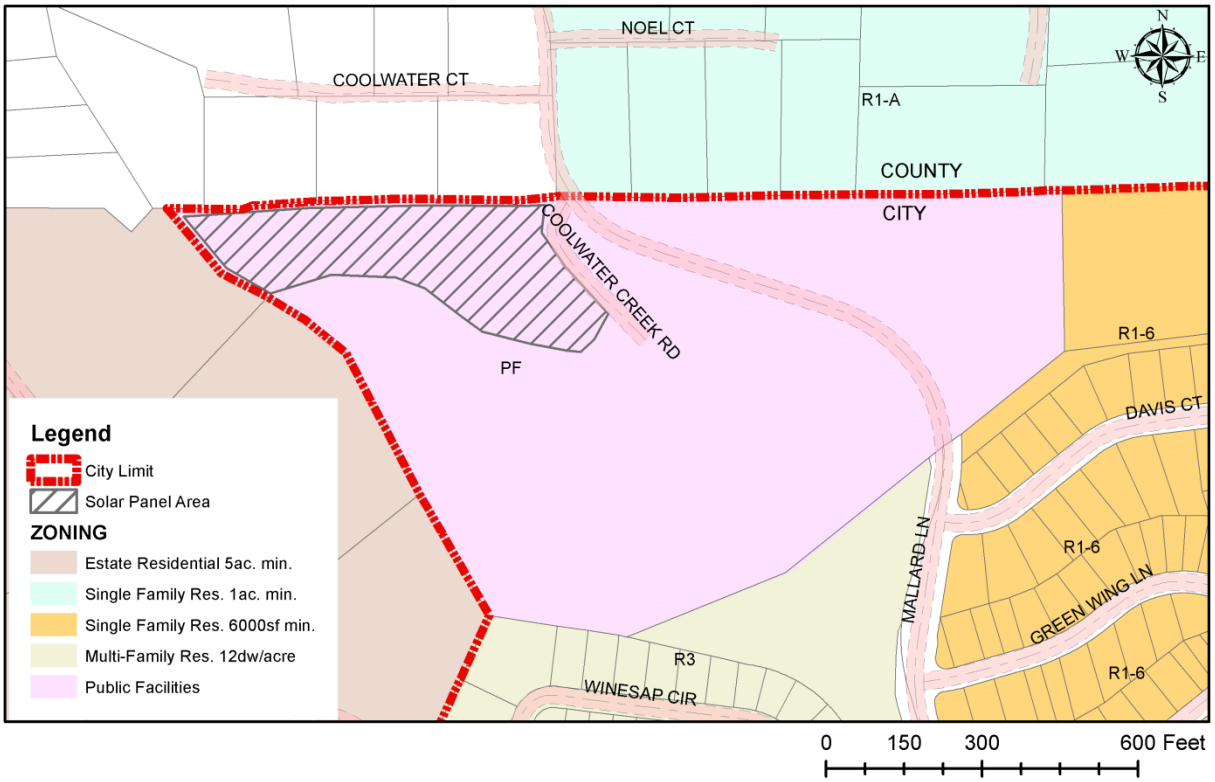


FIGURE 6

PLACERVILLE ZONING MAP



XI. MINERAL RESOURCES. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Analysis

a, b) The State Geologist Mineral Resource Zone (MRZ) Maps for El Dorado County were reviewed to determine if the project would have potential impacts to mineral resources such as limestone, salt, gold, silver, sand and gravel. According to the MRZ maps, the project site is not in an area where significant, measured or indicated mineral deposit resources of limestone, salt, gold, silver, sand or gravel are present. Therefore, the project will have no impact directly, indirectly or cumulatively.

Mitigation Measures: None required.

Source

California Department of Conservation, California Geological Survey, Mineral Land Classification of El Dorado County, California, CGS Open-File Report 2000-03 (2001)

XII. NOISE. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Analysis

a, d) Noise generated from equipment, tools, and vehicles used for site clearing of trees and vegetation, grading, and the construction of the solar project has the potential to cause a temporary increase in the ambient noise level of the site and immediate surroundings. These activities will be temporary in that they will not be present upon completion of the project. The temporary increase is expected to be minimized to a less than significant level upon adherence to the following mitigation measure.

Mitigation Measures:

NOI-1: Project construction is limited to the hours between 7:00 a.m. and 7:00 p.m., Monday through Saturday. No construction shall be allowed on Sunday, or on City-recognized or federally-recognized holidays. A note to this effect shall be placed on the construction plans.

Timeframe for Implementation: During construction activities

Responsibility for Implementation: City of Placerville
Oversight of Implementation: Engineering Department

b) During project construction activities, ground borne vibration or shaking may be generated from grading equipment and during the construction of the solar project. Strict adherence to the time and days specified in Mitigation Measure NOI-1 would limit the ground shaking effects in the project area to a less than significant level.

c) Construction equipment on the site would expect to increase the ambient noise level for the site and the adjacent residential uses adjacent to the project site. The increase in ambient noise is not expected to be substantial for the existing residential uses located to the north and east of the site. Impact is considered less than significant.

e) Placerville Airport is located approximately 5.4 miles east of the site. The site is not situated within the Placerville Airport Influence Area; therefore the project will have no impact directly, indirectly or cumulatively to the Placerville Airport.

f) There are no known private airstrips within the vicinity of the project site. As a result, the project would not expose people residing or working in the project area to excessive noise levels from a private airstrip. Therefore, the project will have no impact directly, indirectly or cumulatively.

Sources
Staff Determination
Placerville Airport Land Use Compatibility Plan
City of Placerville General Plan

XIII. POPULATION AND HOUSING. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Analysis

a) The proposed solar project is an industrial expansion to the existing waste water treatment facility and would not increase the employment requirements of any significance that would increase the local population. Therefore, the project would not induce substantial growth directly or indirectly, and potential impacts, if any, are considered less than significant.

b) The project site is vacant. The project would therefore not displace existing housing. Therefore, the project will have no impact directly, indirectly or cumulatively.

c) The project site is vacant. The project would therefore not displace people as a result. Therefore, the project will have no impact directly, indirectly or cumulatively.

Migration Measures: None required.

Sources

Placerville Municipal Code, *Zoning Ordinance*
City of Placerville Zoning Map
City of Placerville General Plan Land Use Map
United States 2010 Census

XIV. 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:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Analysis

Fire Protection: The site is located within the El Dorado County Fire Protection District. The District's Station 25, located at 3034 Sacramento St., is 4.15 miles east of the site. Per the Fire District, Station 25 is staffed 24 hours a day, 7 days a week by an Engine Company and a Medic Unit. The engine is staffed with one Captain-EMT or Captain-Paramedic, one Firefighter-EMT or Firefighter-Paramedic, and one Apprentice Firefighter. The medic unit is staffed with a Firefighter-Paramedic and either a second Firefighter-Paramedic or a Firefighter-EMT. Volunteers and off-duty personnel staff other apparatus housed at Station 25 when the need warrants. Response time to the site would be approximately seven minutes. The project would therefore not necessitate a need for new facilities.

Police Protection: Police services for the site and other areas within the City are provided by the City of Placerville Police Department. The need for a new or expanded police station or a potential degradation of response time or personnel services resulting from the proposed project is not anticipated in that the Police Department is located within 5.20 miles east of the site. Therefore, the project will have no impact directly, indirectly or cumulatively.

Schools: The solar photovoltaic project is an industrial facility creating no increase in student population.

Parks: The solar photovoltaic project is an industrial facility creating no increase in population, thus, no increase in recreational needs.

Traffic Impact: Additional trips to project site will be generated during construction, estimated at 10 to 25 trips per day. However, those impacts will be temporary and have minimal impacts on public roadways. The additional trips generated by the solar PV facility after construction and during operation is considered negligible, estimated at 4 additional trips per month.

Other Public Utilities: The project requires no water or sewer service to the solar array.

Mitigation Measures: None required.

Sources

El Dorado County Fire District website: http://eldoradocountyfire.com/
El Dorado County Office of Education website: http://edcoe.org/administrative-services/developer-fees
Placerville City Code

XV. RECREATION.

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

Analysis

a-b) The project involves installation and operation of a solar array. The project will not contribute to any increase in population growth that would increase the use of existing neighborhood and regional parks or other recreational facilities in the vicinity. Potential impacts to recreation are therefore there would be no impact to recreational facilities.

Mitigation Measures: None required.

Sources

Placerville Area Parks and Recreation Master Plan, 2009

XVI. TRANSPORTATION/TRAFFIC. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system?	☐	☐	☒	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the City for designated roads or highways?	☐	☐	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Result in inadequate parking capacity?	☐	☐	☐	☒
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

Analysis

a-b) The proposed solar project is not a trip generator and would not create any additional trips except during construction and for monthly inspections to be conducted following implementation to clean the panels and effect maintenance.

c) The project would have no affect on the County Placerville Airport and the subject property is not within the Airport Overlay Zone and not subject to the Placerville Airport Land Use Plan. Therefore, the project will have no impact directly, indirectly or cumulatively.

d) The project would not increase hazards due to a roadway design feature since no additional road sections are to be constructed as part of the project.

e) The project location within the existing waste water treatment plant would not create nor would the project hinder emergency access to the proposed solar PV facility or the waste water treatment plant.

f) The solar project would not create the need for additional parking and the project does not displace any existing parking area.

g) As a solar PV project, the proposal would not conflict with any adopted policies, plans, or programs supporting alternative transportation.

Mitigation Measures: None required.

Sources:
City of Placerville Zoning Ordinance and Maps
El Dorado County Airport Land Use Compatibility Plan, June 28, 2012

XVII. UTILITIES AND SERVICE SYSTEMS. Would the project:

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

Analysis

a, b, e) The solar PV project will not contribute to the generation of waste water or require use of potable water except for periodic array cleaning (three times per year). Therefore, the project will have no impact directly, indirectly or cumulatively.

c) The solar PV project is located within the existing waste water treatment facility on a slope above the FEB and will utilize the existing drainage ditches. The project developer will use BMPs for control of erosion and will employ planting of low growing drought tolerant vegetation to manage storm water runoff and prevent erosion during and following construction of the project. Therefore, the project will have no impact directly, indirectly or cumulatively on storm drainage facilities.

d) The project will only use water for periodic array cleaning (three times per year); therefore, the project will have no impact directly, indirectly or cumulatively on water supplies.

f) The project will involve the removal of the existing site vegetation, which includes trees and shrubs. Smaller trees, branches and shrubs will be masticated and spread over the site. Only the logs may be hauled away to a landfill. However, the landfill impacts will be minimal. Therefore, the project will have no impact directly, indirectly or cumulatively on landfill capacity.

g) The proposed solar project will not generate solid waste in the near term. The facility has a 30-year life expectancy. At that time, various components of the solar PV system may have to be replaced. Therefore, the project will have no impact directly, indirectly or cumulatively.

Mitigation Measures: None required.

Sources
City of Placerville Municipal Code

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.

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

Analysis

a) Based on the analysis contained in this Initial Study, impacts to Aesthetics, Agriculture and Forestry Resources, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation/Traffic, Utilities and Service Systems would have a less than significant on the environment.

Impacts to Biological Resources (tree cover, nesting birds) would be significant unless mitigated. Mitigation Measure BIO-1 is required of the project.

Impacts to Cultural Resources (archeological and paleontological) would be significant unless mitigated. Mitigation Measures CR-1, CR-2, and CR-3 is required of the project.

Impacts to Geology and Soils (erosion and sediment control) would be significant unless mitigated. Therefore, Mitigation Measure GEO-1 is required of the project.

Impacts to Greenhouse Gas Emissions (volatile organic compounds) would be less than significant. To further reduce potential VOC emissions, Mitigation Measures GHG-1 is required of the project.

Impacts to Hydrology and Water Quality would be less than significant. To further reduce potential impacts, Mitigation Measures HYD-1 through HYD-5 is required of the project.

Impacts from Noise (temporary construction activity) would be significant unless mitigated. Mitigation Measure NOI-1 is required of the project.

The implementation and mitigation monitoring of the Mitigation Measures identified above would result in less than significant impacts to Biological Resources, Cultural Resources, Geology and Soils, Hydrology and Water Quality, and Noise.

b) No impacts have been identified resulting from the project that are individually limited, but cumulatively considerable.

c) Based on the analysis contained in this Initial Study and the mitigation measures for Section III: Air Quality, Section IV. Biological Resources, Section VI: Geology and Soils, Section IX: Hydrology and Water Quality, and Section XII: Noise; the mitigation measures incorporated are expected to minimize potential environmental impacts to a less than significant level.

APPENDIX A

Biological Resources Study
for the
Hangtown Creek Water Reclamation Facility
Small Community Grant/
Clean Water State Revolving Fund Loan
SOLAR PHOTOVOLTAIC (PV) for the WWTP Project

City of Placerville, California

Prepared for

California State Water Resources Control Board
1001 I Street
Sacramento, CA 95814
Project No. 8374-110

Prepared by

City of Placerville Development Services Department
3101 Center Street, Placerville, CA 95667
Pierre Rivas, B.A.

October 2018

I. Location

The proposed project is located approximately 3.5 miles west of downtown Placerville at 2300 Coolwater Creek Road, where the City of Placerville owns and operates the Hangtown Creek Water Reclamation Facility (WRF). It is located within the Placerville 7.5-minute Quadrangle, in Township 10 North, Range 10 East, in the Southwest ¼ of Section 11 (**Figure 1**). The parcel on which the WRF is located (Assessor's Parcel Number 23-210-02) comprises 21.72 acres. The City proposes to install a solar photovoltaic system on an approximately 3.5 acre undeveloped portion of the property located in the upper northwest corner. This area is adjacent to and above the WRF FEB (Flow Equalization Basin) and lies just north of Hangtown Creek at an approximate elevation of 1,580 feet above mean sea level. Properties adjacent to the north are large lot single-family residential uses (four homes) with a parking and loading area and Coolwater Creek Road bordering to the east of the project area.

II. Project Description

The project consists of clearing a 3.5 acre site of existing vegetation in preparation for installation of a Solar Photovoltaic (PV) system to provide electricity for the operation of the waste water treatment plant (**Figure 2**). The existing vegetation, primarily dense tree cover, would be removed using mechanical equipment and manual tools. Existing vegetation consists

of common Sierra foothill species of pine, oak, buckbrush, Manzanita, and native and non-native herbaceous plants and grasses.

The PV system would be constructed by installing ground-mounted arrays on a racking system placed on piers that would be driven a maximum of eight (8) feet below ground surface. Vehicles used for vegetation removal and system installation would utilize low-impact rubber-wheels. Smaller trees, branches and shrubs will be masticated and spread over the site with the larger logs being removed from the site.

Grading is expected to occur throughout the project area to a maximum depth of 6 inches. A maximum of 300 piers will be percussion-driven throughout the project site. Each pier is 6 x 8.5 inches wide and 12 feet long.

The constructed PV system will be connected to the WRF's existing 2,000 amp electrical switchgear system. The PV system will generate useable electricity using solar energy and will be interconnected to the WRF's main electrical service.

Following installation of the arrays, the disturbed area would be seeded with an indigenous low-height ground cover.

II. Environmental Setting

The project area is a heavily vegetated undeveloped portion of the Hangtown Creek Water Reclamation Facility site. The site is north of Hangtown Creek, a year round surface waterway, bounded on the south by the WRF. Large-lot residential uses are located to the north and a graveled parking and loading area and two-lane driveway is located to the east (**Figures 3, 4 and 5**). The project area and surrounds are located within the northern Sierra Nevada foothills region of California. This region lies between the Great Central Valley and the high Sierra Nevada mountains and lies within a climate zone typically characterized by hot dry summers and moderately cold wet winters. The region is defined by canyons and valleys formed by the American River and its tributaries and is considered a transitional area of the Sierra Nevada foothills with a combination of lower elevation habitats, such as oak woodland, bordered by higher elevation pine and fir forests.

III. Habitat Type

The site vegetation, dominated by mature trees, is a mix of plant species found at both higher and lower elevations providing for a broad representation of Sierra foothill species. The habitat type can be characterized as Montane Hardwood-Conifer Forest or more precisely; a Blue Oak Foothill Pine Woodland. The site is dominated by blue oak (*Quercus douglasii*), interior live oak (*Quercus wislizeni*), and foothill grey pine (*Pinus sabiniana*) with associated tree species comprising ponderosa pine (*Pinus ponderosa*) and California black oak (*Quercus kelloggii*). With the exception of a small eastern portion of the site serving as a graveled parking and loading area and the southern perimeter comprising non-native grasses; the site is heavily wooded with an understory comprising native shrubs, herbaceous plant species, and Himalayan blackberry bramble (**Figure 6**). Also see **Figures 3, 4 and 5**.

Of special note are the 'landmark' foothill grey pines of impressive stature located on the site. Two grey pines measured 111 inches or 3.0 feet DBH and another measured 140 inches or 3.8 feet DBH.

Dominant shrubs in the understory include typical chaparral species such as whiteleaf Manzanita (*Arctostaphylos viscid*), buck brush (*Ceanothus cuneatusis*), and toyon (*Heteromeles arbutifolia*).

The herbaceous layer is present in openings within the shrub and tree canopy layers. In addition to various grasses, impressive stands of fern and soaproot were observed in the winter season (**Figures 7 and 8**).

The west end of the site consists of a small area serving as a graveled parking and loading area comprising a ruderal plant community characteristic of disturbed roadside habitats such as tar weed and dove weed.

IV. Waters of the U.S.

Waters of the U.S in the project vicinity include Hangtown Creek located to the southwest of the project site. An existing drainage ditch rims the toe of the subject property above the FEB and service road. The entire project site is moderately sloped and contains no seeps, wetland areas or Waters of the U.S.

V. Wildlife Corridors

The project site does not serve as an important wildlife corridor because the site does not connect two or more larger areas of habitat that would otherwise by isolated from one another. Larger animals such as mule deer, fox, and coyote have been observed within the site and may access the Hangtown Creek canyon area to the east by crossing Mallard Lane. The area is an undeveloped 'pocket' within the WRF property and between it and residential properties to the north and Mallard Lane to the east.

VI. Nesting Raptors

Although no nests of birds or raptors were observed, the presence of mature trees, some of significant height could serve as suitable nesting areas. Birds of prey are frequently observed in the area as are other resident and migratory birds.

VII. Special Status Plants

There are five species of special status plants that may occur in the project area. These are the Nissenan manzanita (*Arctostaphylos nissenana*), Pleasant Valley mariposa lily (*Calochortus Clavatus var. avius*), Brandegee's clarkia (*Clarkia biloba ssp. Brandegeeae*), Parry's horkelia (*Horkelia parryi*), and oval-leaved viburnum (*Viburnum ellipticum*). These plants are not federally- or state-listed, but are considered rare by the California Native Plant Society. All of these plants may occur in the understory of Montane Hardwood-Conifer Forests. None of these plants were identified during the two field surveys conducted.

The Nissenan Manzanita is a California Rare Plant Rank (CRPR) 1B listed plant. All of the plants constituting California Rare Plant Rank 1B meet the definitions of the California

Endangered Species Act of the California Fish and Game Code, and are eligible for state listing. Impacts to these species or their habitat must be analyzed during preparation of environmental documents relating to CEQA, or those considered to be functionally equivalent to CEQA, as they meet the definition of Rare or Endangered under CEQA Guidelines §15125; (c) and/or §15380. Although Nissenan Manzanita has been previously identified in the eastern portion of Placerville, none were identified within the project site.

VIII. Special Status Wildlife

Special Status Birds:

Three bird species of special concern may utilize the project site for nesting and foraging. These are the Cooper's hawk (*Accipiter cooperii*), yellow warbler (*Setophaga petechia*), and potentially the California spotted owl (*Strix occidentalis)*.

Other protected raptor species may forage and nest in the project area include the red-shouldered hawk (*Buteo lineatus*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), and great horned owl (Bubo virginianus).

Figure 1: Hangtown Creek Water Reclamation Facility (WRF) Placerville 7.5 Minute Quadrange

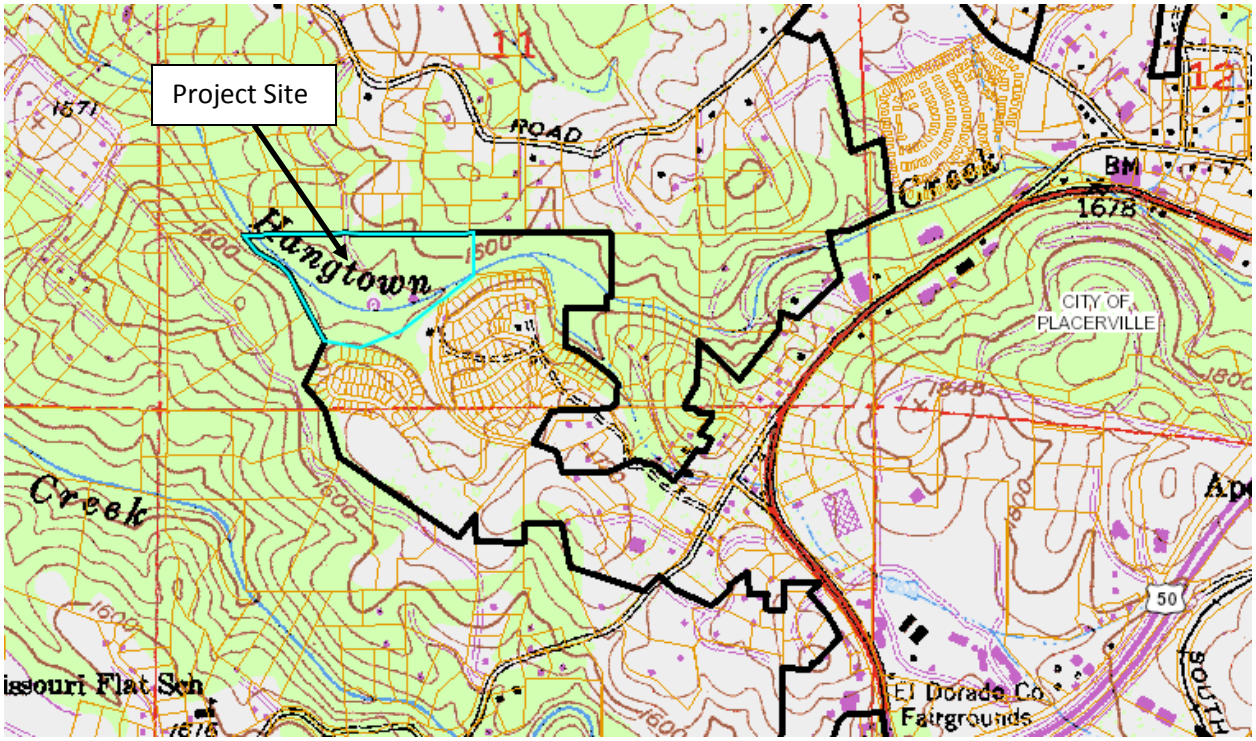


Figure 2: Aerial View of Proposed Solar Array

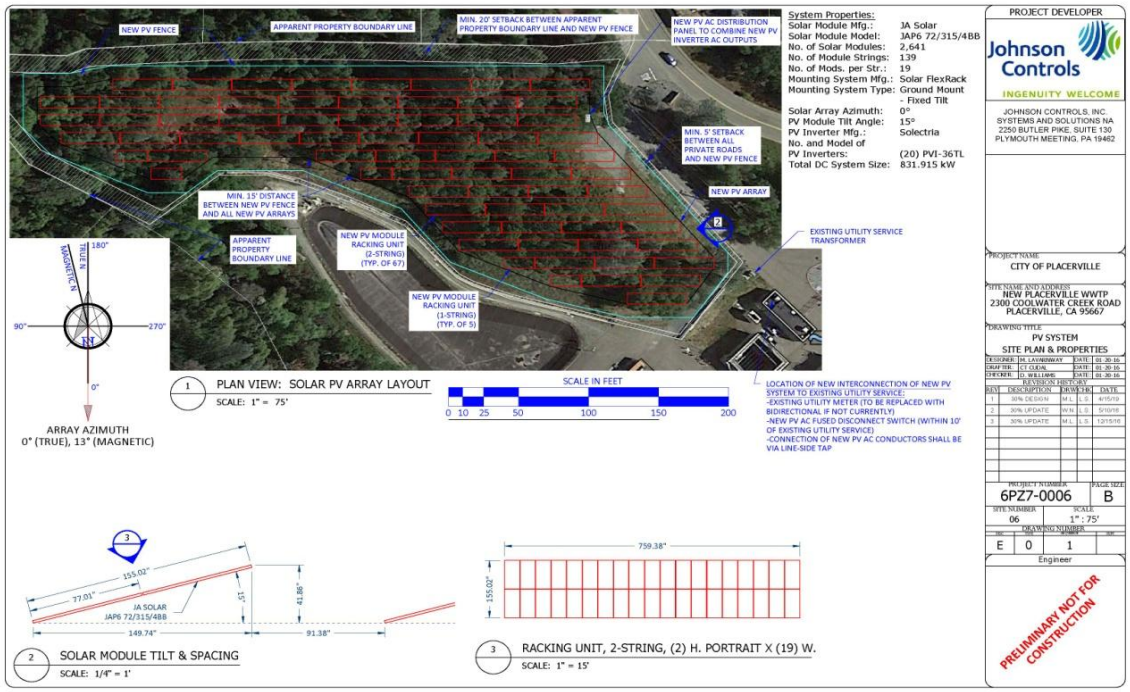


Figure 3: Site View Looking Northeast

Figure 4: Site View Looking North

Figure 5: Site View Looking Northwest – Landmark Foothill Pine

Figure 6: Site Interior – Mixed Pine and Oak

Figure 7: California Soaproot, *Chlorogalum pomeridianum*

Figure 8: California polypoldy fern, *Polypodium californicum*

Appendix A - Species List

Field surveys were conducted on January 26, 2018 and on July 23, 2018

I. Plant Species

Trees:

Foothill Grey Pine, *Pinus sabiniana*, with the common names ghost pine, gray pine, California foothill pine, and the more historically and internationally used digger pine, is a pine endemic to California in the United States. It is also known as foothill pine, bull pine, and nut pine.

Ponderosa Pine, *Pinus ponderosa*, commonly known as the ponderosa pine, bull pine, blackjack pine, or western yellow-pine, is a very large pine tree species of variable habitat native to the western United States and Canada. It is the most widely distributed pine species in North America.

California Black Oak, *Quercus kelloggii*, the California black oak, also known as simply black oak, or Kellogg oak, is an oak in the red oak section (*Quercus* sect. *Lobatae*), native to western North America. It is a close relative of the black oak found in eastern and central North America.

Blue Oak, *Quercus douglasii*, known as blue oak, is a species of oak endemic to California, common in the Coast Ranges and foothills of the Sierra Nevada. It is occasionally known as mountain oak and iron oak.

Interior Live Oak, *Quercus wislizeni*, known by the common name interior live oak, is an evergreen oak, highly variable and often shrubby, found in many areas of California in the United States continuing south into northern Baja California in Mexico.

Canyon Live Oak, *Quercus chrysolepis*, commonly termed canyon live oak, canyon oak, golden cup oak or maul oak, is a North American species of evergreen oak that is found in Mexico and in the western United States, notably in the California Coast Ranges.

Shrubs:

Toyon, *Heteromeles arbutifolia*, commonly known as toyon, is a common perennial shrub native to extreme southwest Oregon, California, Baja California, and British Columbia. It is the sole species in the genus Heteromeles.

Coyote Brush, *Baccharis pilularis*, called coyote brush, chaparral broom, and bush baccharis, is a shrub in the daisy family native to California, Oregon, Washington, and Baja California. There are reports of isolated populations in New Mexico, most likely introduced.

Whiteleaf Manzanita, *Arctostaphylos viscida*, with the common names whiteleaf manzanita and sticky manzanita, is a species of Manzanita common in chaparral and coniferous forests at some elevation and is native to California and Oregon.

Buckbrush, *Ceanothus cuneatus*is a species of flowering shrub known by the common names buckbrush and wedgeleaf ceanothus. This species of Ceanothus is native to Oregon, California and northern Baja California where it can be found in a number of habitats, especially chaparral.

Poison Oak, *Toxicodendron diversilobum*, commonly named Pacific poison oak or western poison oak, is a woody vine or shrub in the sumac family, Anacardiaceae. It is widely distributed in western North America, inhabiting conifer and mixed broadleaf forests, woodlands, grasslands, and chaparral biomes.

Vines:

California Honeysuckle, the perennial vine *Lonicera hispidula* is a species of honeysuckle known as pink honeysuckle and, less often, California honeysuckle. It is a low-elevation woodlands shrub or vine found on the West Coast of the United States.

Herbaceous plants:

California polypoldy, *Polypodium californicum* is a species of fern known by the common name California polypody. It is native to Baja California and California, where it grows along the coastline as well as in moist spots in coastal foothills and mountain ranges in the southern part of its distribution.

California Soaproot, *Chlorogalum pomeridianum*, the wavy-leafed soap plant, California soaproot, or Amole, is the most common and most widely distributed of the soap plants, soaproots or amoles, which make up the genus Chlorogalum of flowering plants. The juices of the bulb contain saponins that form a lather when mixed with water, and both Native American people (e.g. Miwok tribe) and early European settlers used the bulbs as a kind of soap which is the origin of the plant's name.

Dove Weed, *Croton setigerus* is a species of plant known by the common names dove weed and turkey mullein. It is native to western North America, such as Montana and California. It has naturalized elsewhere, including parts of Australia. This is a squat plant with furry, feltlike, hexagon shaped leaves, pale pink green in color.

Yellow Star Thistle, *Centaurea solstitialis*, yellow star-thistle, is a member of the family Asteraceae, native to the Mediterranean Basin region. The plant is also known as golden star thistle, yellow cockspur and St. Barnaby's thistle. The plant is a thorny winter annual species in the knapweed genus. The Yellow-star thistle is an invasive exotic.

Himalayan Blackberry, *Rubus armeniacus*, the Himalayan blackberry or Armenian blackberry, is a species of Rubus in the blackberry group Rubus subgenus Rubus series Discolores Focke. It is native to Armenia and Northern Iran, and widely naturalized elsewhere. The Himalayan blackberry is an invasive exotic.

Tarweed, Madia spp., Madia is a genus of flowering plant in the aster family known by the common names grassy tarweed, slender tarweed, and gumweed madia.

Grasses:

Common Wild Oat, *Avena fatua* is a species of grass in the oat genus. It is known as the common wild oat. This oat is native to Eurasia but it has been introduced to most of the other temperate regions of the world. It is naturalized in some areas and considered a noxious weed in others.

Other introduced European species of grasses were observed on the site. No indigenous grass species were observed.

II. Animal Species

No animals were observed during the January 26, 2018 and July 23, 2018 site visits except the birds and reptiles listed below. The other "observed" animal species listed below are those observed on a regular basis by the Hangtown Creek Water Reclamation Facility staff.

Mammal Observed:

Mule Deer, *Odocileus hemionus*

Gray Fox, Urocyon cinereoargenteus

Coyote, *Canis latrans*

Western Grey Squirrel, *Sciurus griseus*

Mammals Species Likely to Frequent Site:

Striped Skunks, *Mephitis mephitis*

Raccoon, *Procyon lotor*

Bobcat, *Lynx rufus*

North American Opossum or Virginia opossum, *Didelphis virginiana*

Birds Observed:

California Scrub Jay, *Aphelocoma californica*

Common Raven, *Corvus corax*

White-Crowned Sparrow, *Zonotrichia leucophrys*

Spotted Towhee, *Pipilo maculates*

Rio Grande Wild Turkey, *Meleagris gallopavo intermedia*

Reptiles Observed:

Western Fence Lizard, *Sceloporus occidentalis*

Amphibians Observed:

No amphibians have been observed on the site.

APPENDIX B

Solar Photovoltaic (PV) at the WWTP - El Dorado-Mountain County County, Annual

CalEEMod Version: CalEEMod.2016.3.2 Date: 5/31/2018 3:54 PM

Solar Photovoltaic (PV) at the WWTP - El Dorado-Mountain County County, Annual

Solar Photovoltaic (PV) at the WWTP

El Dorado-Mountain County County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	0.00	User Defined Unit	2.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No demolition is required. There are no existing structures on the site. No asphalt or concrete paving is included in the project.

Off-road Equipment - No architectural coatings will be installed in this project

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - No demolition is required for this project. There are no existing structures on the site.

Grading - The size of the site is only 2 acres

Demolition -

Trips and VMT - No demolition, paving and architectural coating is required for this project

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation - Contractor to apply water to disturbed are to reduce dust emissions.

Energy Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	200.00	65.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	4.00	5.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	2.00	40.00
tblConstructionPhase	PhaseEndDate	5/9/2019	7/18/2019
tblConstructionPhase	PhaseEndDate	4/11/2019	7/18/2019
tblConstructionPhase	PhaseEndDate	6/27/2018	2/14/2019
tblConstructionPhase	PhaseEndDate	7/5/2018	4/18/2019
tblConstructionPhase	PhaseEndDate	4/25/2019	7/18/2019
tblConstructionPhase	PhaseEndDate	6/29/2018	4/11/2019
tblConstructionPhase	PhaseStartDate	4/26/2019	7/19/2019
tblConstructionPhase	PhaseStartDate	7/6/2018	4/19/2019
tblConstructionPhase	PhaseStartDate	5/31/2018	2/15/2019
tblConstructionPhase	PhaseStartDate	6/30/2018	4/12/2019
tblConstructionPhase	PhaseStartDate	4/12/2019	7/19/2019
tblConstructionPhase	PhaseStartDate	6/28/2018	2/15/2019
tblGrading	AcresOfGrading	2.50	2.00
tblGrading	AcresOfGrading	60.00	2.00
tblLandUse	LotAcreage	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1243	1.1029	0.7663	1.3700e-003	0.0186	0.0552	0.0738	8.8900e-003	0.0522	0.0610	0.0000	118.1718	118.1718	0.0296	0.0000	118.9124
Maximum	**0.1243**	**1.1029**	**0.7663**	**1.3700e-003**	**0.0186**	**0.0552**	**0.0738**	**8.8900e-003**	**0.0522**	**0.0610**	**0.0000**	**118.1718**	**118.1718**	**0.0296**	**0.0000**	**118.9124**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1243	1.1029	0.7663	1.3700e-003	9.1900e-003	0.0552	0.0644	4.2100e-003	0.0522	0.0564	0.0000	118.1717	118.1717	0.0296	0.0000	118.9123
Maximum	**0.1243**	**1.1029**	**0.7663**	**1.3700e-003**	**9.1900e-003**	**0.0552**	**0.0644**	**4.2100e-003**	**0.0522**	**0.0564**	**0.0000**	**118.1717**	**118.1717**	**0.0296**	**0.0000**	**118.9123**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**50.67**	**0.00**	**12.80**	**52.64**	**0.00**	**7.67**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
3	**11-30-2018**	**2-27-2019**	0.1085	0.1085
4	**2-28-2019**	**5-30-2019**	0.7431	0.7431
5	**5-31-2019**	**8-30-2019**	0.3757	0.3757
		Highest	0.7431	0.7431

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	-402.9124	-402.9124	-0.0182	-0.0038	-404.4911
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**-402.9124**	**-402.9124**	**-0.0182**	**-0.0038**	**-404.4911**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	0.0000
Vegetation Land Change	-222.0000
Total	**-222.0000**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/15/2019	2/14/2019	5	0	
2	Site Preparation	Site Preparation	2/15/2019	4/11/2019	5	40	
3	Grading	Grading	4/12/2019	4/18/2019	5	5	
4	Building Construction	Building Construction	4/19/2019	7/18/2019	5	65	
5	Paving	Paving	7/19/2019	7/18/2019	5	0	
6	Architectural Coating	Architectural Coating	7/19/2019	7/18/2019	5	0	

Acres of Grading (Site Preparation Phase): 2

Acres of Grading (Grading Phase): 2

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Scrapers	1	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0600e-003	0.0000	1.0600e-003	1.1000e-004	0.0000	1.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0351	0.4308	0.2383	4.9000e-004		0.0171	0.0171		0.0157	0.0157	0.0000	44.0264	44.0264	0.0139	0.0000	44.3747
Total	**0.0351**	**0.4308**	**0.2383**	**4.9000e-004**	**1.0600e-003**	**0.0171**	**0.0181**	**1.1000e-004**	**0.0157**	**0.0158**	**0.0000**	**44.0264**	**44.0264**	**0.0139**	**0.0000**	**44.3747**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.6000e-004	5.5000e-004	5.9000e-003	1.0000e-005	1.2600e-003	1.0000e-005	1.2700e-003	3.4000e-004	1.0000e-005	3.4000e-004	0.0000	1.1639	1.1639	4.0000e-005	0.0000	1.1650
Total	**8.6000e-004**	**5.5000e-004**	**5.9000e-003**	**1.0000e-005**	**1.2600e-003**	**1.0000e-005**	**1.2700e-003**	**3.4000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.1639**	**1.1639**	**4.0000e-005**	**0.0000**	**1.1650**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.8000e-004	0.0000	4.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0351	0.4308	0.2383	4.9000e-004		0.0171	0.0171		0.0157	0.0157	0.0000	44.0264	44.0264	0.0139	0.0000	44.3746
Total	**0.0351**	**0.4308**	**0.2383**	**4.9000e-004**	**4.8000e-004**	**0.0171**	**0.0176**	**5.0000e-005**	**0.0157**	**0.0158**	**0.0000**	**44.0264**	**44.0264**	**0.0139**	**0.0000**	**44.3746**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.6000e-004	5.5000e-004	5.9000e-003	1.0000e-005	1.2600e-003	1.0000e-005	1.2700e-003	3.4000e-004	1.0000e-005	3.4000e-004	0.0000	1.1639	1.1639	4.0000e-005	0.0000	1.1650
Total	**8.6000e-004**	**5.5000e-004**	**5.9000e-003**	**1.0000e-005**	**1.2600e-003**	**1.0000e-005**	**1.2700e-003**	**3.4000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.1639**	**1.1639**	**4.0000e-005**	**0.0000**	**1.1650**

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0161	0.0000	0.0161	8.3900e-003	0.0000	8.3900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.0700e-003	0.0569	0.0254	5.0000e-005		2.6800e-003	2.6800e-003		2.4700e-003	2.4700e-003	0.0000	4.6295	4.6295	1.4600e-003	0.0000	4.6661
Total	**5.0700e-003**	**0.0569**	**0.0254**	**5.0000e-005**	**0.0161**	**2.6800e-003**	**0.0188**	**8.3900e-003**	**2.4700e-003**	**0.0109**	**0.0000**	**4.6295**	**4.6295**	**1.4600e-003**	**0.0000**	**4.6661**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	9.0000e-005	9.2000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1819	0.1819	1.0000e-005	0.0000	0.1820
Total	**1.3000e-004**	**9.0000e-005**	**9.2000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1819**	**0.1819**	**1.0000e-005**	**0.0000**	**0.1820**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.2500e-003	0.0000	7.2500e-003	3.7800e-003	0.0000	3.7800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.0700e-003	0.0569	0.0254	5.0000e-005		2.6800e-003	2.6800e-003		2.4700e-003	2.4700e-003	0.0000	4.6295	4.6295	1.4600e-003	0.0000	4.6661
Total	**5.0700e-003**	**0.0569**	**0.0254**	**5.0000e-005**	**7.2500e-003**	**2.6800e-003**	**9.9300e-003**	**3.7800e-003**	**2.4700e-003**	**6.2500e-003**	**0.0000**	**4.6295**	**4.6295**	**1.4600e-003**	**0.0000**	**4.6661**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	9.0000e-005	9.2000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1819	0.1819	1.0000e-005	0.0000	0.1820
Total	**1.3000e-004**	**9.0000e-005**	**9.2000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1819**	**0.1819**	**1.0000e-005**	**0.0000**	**0.1820**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0831	0.6146	0.4958	8.1000e-004		0.0354	0.0354		0.0340	0.0340	0.0000	68.1702	68.1702	0.0142	0.0000	68.5247
Total	**0.0831**	**0.6146**	**0.4958**	**8.1000e-004**		**0.0354**	**0.0354**		**0.0340**	**0.0340**	**0.0000**	**68.1702**	**68.1702**	**0.0142**	**0.0000**	**68.5247**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0831	0.6146	0.4958	8.1000e-004		0.0354	0.0354		0.0340	0.0340	0.0000	68.1701	68.1701	0.0142	0.0000	68.5246
Total	**0.0831**	**0.6146**	**0.4958**	**8.1000e-004**		**0.0354**	**0.0354**		**0.0340**	**0.0340**	**0.0000**	**68.1701**	**68.1701**	**0.0142**	**0.0000**	**68.5246**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.512962	0.041542	0.225677	0.140684	0.035619	0.007151	0.016044	0.009270	0.001580	0.001207	0.005638	0.000826	0.001801

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

Percent of Electricity Use Generated with Renewable Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	-402.9124	-402.9124	-0.0182	-0.0038	-404.4911
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	-1.385e+006	-402.9124	-0.0182	-0.0038	-404.4911
Total		**-402.9124**	**-0.0182**	**-0.0038**	**-404.4911**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	-222.0000	0.0000	0.0000	-222.0000

11.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Trees	2 / 0	-222.0000	0.0000	0.0000	-222.0000
Total		**-222.0000**	**0.0000**	**0.0000**	**-222.0000**

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**