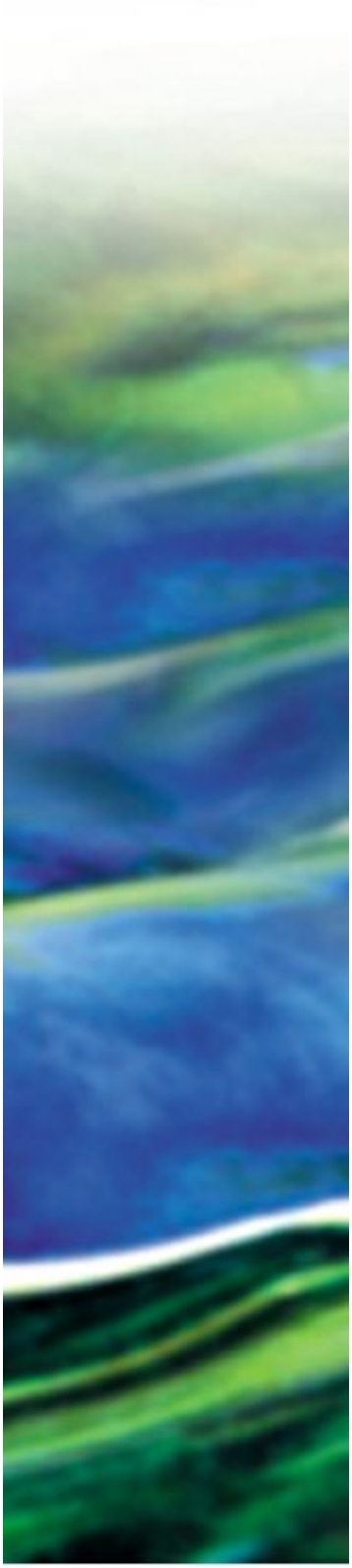

SUPPLEMENTAL INITIAL STUDY FOR THE CITY OF BRENTWOOD WASTEWATER TREATMENT PLANT PHASE II EXPANSION PROJECT

Prepared for:

THE CITY OF BRENTWOOD
HERITAGE ▪ VISION ▪ OPPORTUNITY

CITY OF BRENTWOOD
PUBLIC WORKS-ENGINEERING

Prepared by:

RBI ROBERTSON - BRYAN, INC.
Solutions for Progress

September 2023

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September 2023

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
ADWF	average dry weather flow
BDPS	biosolids drying and pyrolysis system
BMPs	Best Management Practices
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
ECCCHCP	East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan
GHG	greenhouse gas emissions
MGD	million gallons per day
MND	Mitigated Negative Declaration
MTCO2e	metric tons of carbon dioxide equivalent
NAHC	Native American Heritage Commission
NOX	oxides of nitrogen
NPDES	National Pollution Discharge Elimination System
PM2.5	particulate matter 2.5 microns in diameter
PM10	particulate matter 10 microns in diameter or smaller
PRC	Public Resources Code
ROG	reactive organic gases
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
USFWS	U.S. Fish and Wildlife Service
VMT	vehicle miles traveled
WWTP	Wastewater Treatment Plant

1 INTRODUCTION

In 2016, the City of Brentwood (City) prepared an Initial Study to evaluate potential environmental impacts from construction and operation of its proposed Wastewater Treatment Plant (WWTP) Phase II Expansion Project and adopted a Mitigated Negative Declaration (MND) on August 9, 2016. The City has changed its planned biosolids drying system from that described in the 2016 Initial Study to an alternative technology that will be installed at a different location outside of the existing WWTP site. This Supplemental Initial Study evaluates the impacts associated with construction and operation of the alternative biosolids drying system.

1.1 REGULATORY GUIDANCE AND PURPOSE OF THIS DOCUMENT

This Supplemental Initial Study has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code 21000 et seq., and the State CEQA Guidelines, Title 14 California Code of Regulations 15000 et seq to determine if the proposed modifications to the WWTP Phase II Expansion Project (Proposed Project) could have significant impacts on the environment. In accordance with CEQA Guidelines 15064(a), an Environmental Impact Report must be prepared if there is substantial evidence that a project may have significant impacts on the environment. If the lead agency for the CEQA process determines that there is no substantial evidence for such impacts, or if the potential impacts can be reduced through revisions to the project or mitigation measures, a Negative Declaration or MND can be prepared (CEQA Guidelines 15070). The City, as the CEQA lead agency for the project, has determined that a Supplemental Initial Study is the appropriate document for compliance with CEQA and the CEQA Guidelines. The City is the lead agency for the Proposed Project.

1.2 CEQA UPDATES SINCE PREPARATION OF THE 2016 INITIAL STUDY

The State CEQA Guidelines underwent a comprehensive update that became effective on December 28, 2018. The update addressed legislative changes to the CEQA statute, clarified certain portions of the State CEQA Guidelines, and updated the State CEQA Guidelines to be consistent with recent court decisions. The thresholds and analyses contained in this Supplemental Initial Study reflect the latest State CEQA Guidelines.

1.3 APPROACH TO ANALYSIS

This Supplemental Initial Study was prepared using the current Environmental Checklist in State CEQA Guidelines Appendix G. Compared to the Environmental Checklist used to prepare the 2016 Initial Study, there are three additional resource categories addressed: Energy, Tribal Cultural Resources, and Wildfire. In addition, some of the Environmental Checklist questions in some resource categories have changed to varying degrees. The changes range from a slight change in phrasing to reorganization of the questions to the addition of new questions.

Impact conclusions for the checklist questions are related back to the impact conclusions in the 2016 Initial Study and differences noted, if necessary. Mitigation measures in the 2016 Initial Study are included, if necessary, to address new impacts from the modified project, or new

mitigation measures included, if necessary to reduce a potentially significant impact to a less than significant level.

1.4 PUBLIC REVIEW OF THE DOCUMENT

In accordance with Section 15073 of the CEQA Guidelines, this document will be circulated to local, state, and federal agencies and to interested organizations and individuals who may wish to review and comment on it. In reviewing this Supplemental Initial Study and proposed mitigation measures, affected public agencies and the interested public should focus on whether the document sufficiently identifies and analyzes the possible impacts on the environment.

Following the close of the public review period, the City Council will review and evaluate the evidence contained in the Initial Study and proposed Mitigated Negative Declaration and public comments received on these documents. At a scheduled and noticed public meeting, the City Council will consider approval of the Proposed Project, and adoption of the Mitigated Negative Declaration and associated Mitigation Monitoring and Reporting Program.

1.5 SUMMARY OF FINDINGS

Section 3 of this document contains the analysis and discussion of potential environmental impacts resulting from the Proposed Project. Based on the analysis presented in Section 3, the Proposed Project would have no impact on the following resources.

- Agriculture and Forestry Resources
- Hazards and Hazardous Materials
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Utilities and Service Systems

Impacts of the Proposed Project were determined to be less than significant for the following resources.

- Aesthetics
- Air Quality
- Energy
- Greenhouse Gas Emissions
- Public Services
- Recreation
- Transportation
- Wildfire

Impacts of the Proposed Project to the following resources would be less than significant with incorporation of the mitigation measures described in Section 3.

- Biological Resources
- Cultural Resources

- Geology and Soils
- Hydrology and Water Quality
- Noise
- Tribal Cultural Resources

As required by CEQA, a Mitigation Monitoring and Reporting Program will be prepared and adopted at the time of project approval. It will include those mitigation measures that would reduce potentially significant environmental impacts to less-than-significant levels.

2 PROJECT DESCRIPTION

The following sections describe the Proposed Project location, background, purpose and objectives, components, construction methods, and operations.

2.1 PROJECT LOCATION

The Proposed Project is located at the City of Brentwood WWTP in Contra Costa County, as shown in **Figure 1**.

2.2 PROJECT BACKGROUND

The City initiated planning for the Phase II wastewater treatment plant (WWTP) expansion project in 2016 to expand the treatment capacity from 5 million gallons per day (MGD) average dry weather flow (ADWF) to 7.5 MGD ADWF. As originally proposed, the project involved construction of a biosolids dryer building, storage silo, and stockpile area as a means of producing Class A biosolids, thus facilitating additional uses or disposal methods for the biosolids. The City has since decided to use different technology and place the biosolids drying facilities at a different location.

2.3 PROJECT PURPOSE AND OBJECTIVES

The purpose of the Proposed Project is to construct new biosolids handling and drying facilities for the WWTP Phase II Expansion Project. The specific objective of the Proposed Project is to produce Class A biosolids to maximize biosolids disposal options.

2.4 PROJECT COMPONENTS

The Proposed Project modifications consist of the following main components.

1. Installation of a biosolids drying and pyrolysis system (BDPS) outside of the existing footprint of the WWTP.

2. Realignment of a paved connector path to the Marsh Creek trail.

3. Installation of new WWTP perimeter fencing around the BDPS.

4. Tree removal.

Figure 1. Location map of city of Brentwood and Brentwood Wastewater Treatment Plant.

All project components would be constructed on City-owned property immediately adjacent to the east boundary of the current WWTP footprint, as shown in **Figure 2.**

The originally proposed biosolids dryer building and storage silo, planned to be located within the existing WWTP footprint (see Figure 2), would no longer be constructed.

2.4.1 Biosolids Drying and Pyrolysis System

The 2016 Initial Study Proposed Project included a "Solids Dryer Option" as a means of producing Class A biosolids to facilitate additional uses or disposal methods for the biosolids. This option included construction of a biosolids dryer building, biosolids storage silo, and stockpile area. Natural gas was assumed to be used for the biosolids dryer. The Class A biosolids were expected to be applied to land on nearby farming operations for soil amendment.

The City has selected construction of a biosolids dryer as the preferred option, with the addition of a pyrolysis system. The primary change to the Proposed Project from that described in the 2016 Initial Study is that the BDPS is to be located outside of and adjacent to the existing WWTP footprint. The proposed location for the BDPS units is shown in Figure 2. Exhaust air from the biosolids dryer would be sent through an air filtration system consisting of sulfuric acid wet scrubbers and a biofilter. The exhaust air from the pyrolysis system would be sent to a sodium hydroxide scrubber with a granular activated carbon filter. The City is proposing to install two BDPS units, one in the near term and a second unit in the future. The existing belt filter presses would be retained for use during maintenance periods for the BDPS units.

Basic operation of the BDPS would result in biochar being produced and packaged in bags. The biochar may be applied by the City on public parks and medians or hauled offsite by the BDPS vendor for sale. The BDPS could be operated to use only the biosolids drying system, which would result in Class A biosolids being produced that would be hauled to a landfill for use as daily cover. If the BDPS is out of service for an extended period, then the existing belt filter press system would be used and those biosolids would be hauled to a landfill for use as daily cover, as they are now.

Storm drainage from the area where the BDPS would be located would be routed to an existing retention basin by tying into a storm drain on the existing WWTP site.

2.4.2 Connector Path

A paved path to the east of the WWTP connects the Marsh Creek trail, located north of the WWTP, and the Sunset Park Athletic Complex, located south of the WWTP. A portion of this connector path would be realigned to the east of its existing location to accommodate the new BDPS units. The proposed realignment is shown in Figure 2. The path would be realigned prior to work on the BDPS units. The abandoned segments of the path would be demolished and reused at the WWTP site as grindings. The disturbed area would be planted with native grass seed.

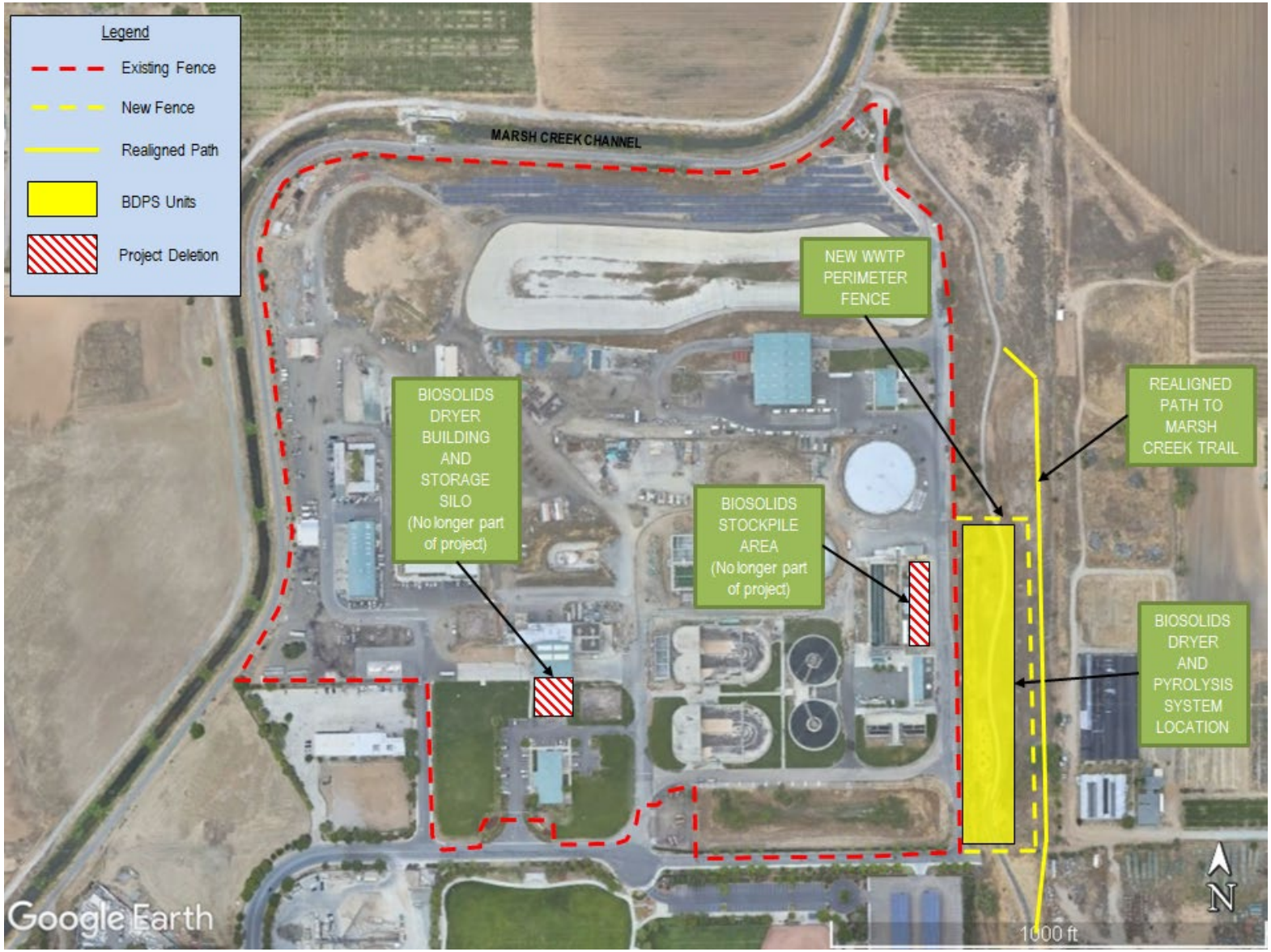

Figure 2. Proposed modifications to the City of Brentwood Wastewater Treatment Plant Phase II Expansion Project.

2.4.3 New Perimeter Fence

A temporary fence around the construction site would be installed to prevent public access to the WWTP during construction. Upon completion of construction of the BDPS, a new, permanent fence would be installed, as shown in Figure 2, to establish a new perimeter for the WWTP.

2.4.4 Tree Removal

Construction in the expanded area would include removal of two Valley Oak (*Quercus lobata*) trees that are three inches in diameter at breast height.

2.5 PROJECT CONSTRUCTION

The Phase II WWTP expansion project description assumed a variety of equipment typical for construction activities, including excavation, grading, and paving equipment, trucks, generators, and power tools. An anticipated peak day of construction activity was assumed to occur on a day where heavy earthmoving occurs in combination with equipment-intensive activities such as concrete placement and would involve use of 3 to 4 pieces of equipment and 10 to 15 delivery trips of concrete over a 10-hour day.

Because of similarities in construction methods and facilities, construction equipment needed for BDPS units would be comparable to that needed for the biosolids dryer building and storage silo that would no longer be constructed. Realignment of the connector path would also involve typical construction equipment assumed in the 2016 Initial Study, such as a backhoe, gravel truck, a compactor, and a paving machine. Therefore, there would be no increase in peak day construction equipment use or hauling trips for construction of the BDPS units, realigned path, or new perimeter fence compared to that assessed in the 2016 Initial Study. Furthermore, the number of days over which construction of BDPS units, realigned path, or new perimeter fence would occur is estimated to be the same as that required to construct the previously proposed biosolids dryer building, storage silo, and stockpile area.

The 2016 Initial Study assumed the anticipated peak daily construction workforce for the Proposed Project would be approximately 30 workers and the average number of workers for the duration of construction would be approximately 15 workers. Construction was assumed to generally be performed between 7 a.m. and 6 p.m., Monday through Friday, though the typical workday ends by 4 p.m. The workforce necessary to construct the new BDPS, realigned connector path, and fence would be such that the number of workers needed to be on site would not exceed these numbers. Finally, the hours each day when construction would occur on site would not differ from those identified in the 2016 Initial Study.

2.6 PROJECT OPERATIONS

The 2016 Initial Study assumed the number of trips for offsite hauling of dewatered biosolids with the Solids Dryer Option would decrease from 370 truck trips per year to 110 trips per year (i.e., 260 fewer trips than existing conditions). The number of trips per year to haul biosolids from the proposed BDPS units is also approximately 110 trips per year, thus no change from the 2016 Initial Study.

3 ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION

1. Project Title: City of Brentwood WWTP Phase II Expansion Project
2. Lead Agency Name and Address: City of Brentwood (Contra Costa County)
3. Contact Person and Phone Number: Mr. Casey Wichert, 925-516-6000
4. Project Location: City of Brentwood
5. Project Sponsor's Name and Address: *Not applicable*
6. General Plan Designation: Variable (residential, public facility)
7. Zoning: Variable planned development zones, public facility
8. Description of Project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)

   See Section 2, Project Description

9. Surrounding Land Uses and Setting: Briefly describe the project's surroundings:

See Section 2, Project Description

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

None

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

The City of Brentwood sent out formal notification letters by mail and electronic format, pursuant to PRC Section 21080.3.1, on June 15, 2023. The formal notification letters were sent to the City's Native American Heritage Commission Tribal Consultation list. The letters included a project description, project map, and name, telephone, and email information for the City's point of contact. The City received a request for consultation from the Wilton Rancheria on August 8, 2023; no responses from other notified Tribes were received as of the close of 30-day response period. See Section 3.18, "Tribal Cultural Resources," for additional information.

NOTE: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

3.1 AESTHETICS

	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-significant impact	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)	In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☑	☐
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☑	☐

3.1.1 Setting

The Aesthetics setting is provided in the 2016 Initial Study.

3.1.2 Discussion

a) The new BDPS would be visible from the adjacent path connecting Sunset Park to Marsh Creek but would not be visible from any designated scenic routes and would not adversely affect any community views of Mount Diablo or the ridgelines from scenic routes or public spaces. The realigned path would traverse the same terrain and views of the surrounding area would be similar to existing conditions. Therefore, the Proposed Project would have **no impact** on a scenic vista. *This conclusion is consistent with the 2016 Initial Study impact determination.*

b) There are no designated scenic highways in the Proposed Project area, and no rock outcroppings or historic buildings or structures would be affected by the new BDPS or realigned path. Therefore, the Proposed Project would have **no impact** on scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. *This conclusion is consistent with the 2016 Initial Study impact determination.*

a) The Proposed Project is located at the edge of the urbanized area of the city, with agricultural land to the east. There is only limited visibility of the Proposed Project area from nearby Elkins Way. The new BDPS would be immediately adjacent to the existing WWTP site and would be of similar character and height to the other WWTP treatment units and buildings. Furthermore, the Proposed Project components would not substantially change or block any views in the area from public spaces. The realigned path would traverse the same terrain and views of the surrounding area would be similar to existing conditions. Therefore, the Proposed Project would have a **less-than-significant impact** on the existing visual character

and quality of the site and its surroundings and would not conflict with applicable zoning and other regulations governing scenic quality. *This conclusion is consistent with the 2016 Initial Study impact determination*.

b) The new BDPS units may include a small amount of additional security lighting. However, the new units would not be expected to appreciably change any existing glare or lighting conditions because the visibility of the site from residential areas and public spaces and roadways is limited. Therefore, the Proposed Project would have a **less-than-significant impact** on day or nighttime views in the area. *This conclusion is consistent with the 2016 Initial Study impact determination*.

3.2 AGRICULTURE AND FOREST RESOURCES

	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-significant impact	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 Agency, to non-agricultural use?	☐	☐	☐	☑
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☑
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☑
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☑
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☑

3.2.1 Setting

The Agricultural and Forest Resources setting is provided in the 2016 Initial Study.

3.2.2 Discussion

a-e) The site where the BDPS facilities would be constructed is designated in the General Plan as public facilities. No aspect of construction or operations of the new BDPS or realigned path would adversely affect, or directly or indirectly cause or contribute to conversion of agricultural or forestry resources to other land uses. Therefore, the Proposed Project would have **no impact** on Farmland, existing zoning for agricultural use, a Williamson Act contract, or forest land. *This conclusion is consistent with the 2016 Initial Study impact determination*.

3.3 AIR QUALITY

	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-significant impact	No Impact
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☑	☐
b)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☑	☐
c)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☑	☐
d)	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☑	☐

3.3.1 Setting

The Proposed Project site is in the eastern portion of Contra Costa County, California, which is within the San Francisco Bay Area Air Basin. Ozone and particulate matter (i.e., respirable [PM_{10}] and fine [$PM_{2.5}$]) are the primary pollutants of concern within the county. Contra Costa County is designated by California as a "non-attainment" for ozone, PM_{10}, and $PM_{2.5}$, and either as "attainment" or "unclassified" for other pollutants (California Air Resources Board 2022). Additionally, the county is categorized as "marginal non-attainment" for the 8-hour ozone standard, "other non-attainment" for the 1-hour ozone standard, "moderate non-attainment" for the $PM_{2.5}$ standard, and "attainment" for the PM10 standard (U.S. Environmental Protection Agency 2015). Additional Air Quality setting details are provided in the 2016 Initial Study. Additional Air Quality setting is provided in the 2016 Initial Study.

3.3.2 Discussion

a) As described in the 2016 Initial Study, the Proposed Project would not result in any regional population growth beyond that planned in the City's General Plan. Therefore, the Proposed Project would have a **less-than-significant impact** on implementation of an applicable air quality plan. *This conclusion is consistent with the 2016 Initial Study impact determination.*

b) As described in the 2016 Initial Study, construction and operation of the Proposed Project would result in emissions of criteria air pollutants and precursors, including reactive organic gases (ROG), oxides of nitrogen (NO_X), PM_{10}, and $PM_{2.5}$.

   As described above in Section 2.5, Construction Methods, the Proposed Project would not use unique construction equipment not considered in the 2016 Initial Study and would not result in additional peak day construction equipment use, hauling trips, or construction workforce compared to that assessed in the 2016 Initial Study. Therefore, based on the analysis presented in the 2016 Initial Study, the Proposed Project construction-related emissions would be less than BAAQMD thresholds of significance.

Data supplied by the BDPS vendor shows that the amounts of ROG, NO_x, PM_{10}, and $PM_{2.5}$ generated during operations would differ from that presented in the 2016 Initial Study. **Table 1** summarizes the modeled emissions of criteria air pollutants and ozone precursors identified in the 2016 Initial Study for the Proposed Project with the Solids Dryer Option. Table 1 also presents emissions data for the Proposed Project modified to include the BDPS units. While the BDPS units would generate more ROG, NO_x, PM_{10}, and $PM_{2.5}$ than modeled for the 2016 Initial Study, operations-related emissions would still be less than BAAQMD thresholds of significance.

Table 1. Summary of Average Daily Emissions of Criteria Air Pollutants and Precursors for Proposed Project Operations (lb/day).

Project Parameter [a]	Average Daily Emissions Threshold of Significance	2016 Initial Study Proposed Project with Solids Dryer Option [a]	Proposed Project with BDPS Units	Exceeds Threshold?
Reactive organic gases (ROG)	54	1.1	16.3	No
Oxides of nitrogen (NO_x)	54	6.6	19.6	No
PM_{10}	82	0.6	0.6	No
$PM_{2.5}$	54	0.6	0.6	No

BDPS = biosolids dryer and pyrolysis system; lb/day = pounds per day

[a] See 2016 Initial Study for detail on model inputs, assumptions, and project-specific modeling parameters.

Therefore, maximum emissions estimates for the Proposed Project would result in a **less-than-significant impact** on the cumulatively considerable net increase of criteria pollutants for which the project region is non-attainment under an applicable federal or state ambient air quality standard. *This conclusion is consistent with the 2016 Initial Study impact determination.*

Even though the Proposed Project would have less-than-significant impact on criteria pollutants, the BAAQMD's 2022 CEQA Guidelines require that, in order for a project to have less-than-significant criteria air pollutant impact related to construction-related fugitive dust emissions, it must implement all the district's basic best management practices (BMPs). Therefore, these BMPs are incorporated into the Proposed Project as Mitigation Measure AQ-1. This is a new mitigation measure relative to the 2016 Initial Study.

MITIGATION MEASURE AQ-1. BASIC BEST MANAGEMENT PRACTICES FOR CONSTRUCTION-RELATED FUGITIVE DUST EMISSIONS.

Note: this is a new mitigation measure.

B-1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

B-2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

B-3. All visible mud or dirt trackout onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

B-4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.

B-5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

B-6. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.

B-7. All trucks and equipment, including their tires, shall be washed off prior to leaving the site.

B-8. Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted wood chips, mulch, or gravel.

B-9. Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.

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c) As described in the 2016 Initial Study, nearby residences and day-care facilities are located over 1,000 feet from on-site construction activities, while potential receptors at the Sunset Park Athletic Complex would be within 200 feet of construction activity. Considering the highly dispersive properties of diesel PM, the relatively low mass of diesel PM emissions that would be generated during project construction, and the temporary nature of construction activities, construction-related emissions would not expose sensitive receptors to an incremental increase in cancer risk that exceeds 10 in one million or a hazard index greater than 1.0. Additionally, emissions from Proposed Project construction would not exceed applicable thresholds, as discussed above under "b)." Furthermore, Proposed Project operations would not expose sensitive receptors to an incremental increase in cancer risk that exceeds 10 in one million or a hazard index greater than 1.0, as explained in the 2016 Initial Study. Therefore, emissions from Proposed Project construction and operations would have a **less-than-significant impact** on sensitive receptors. *This conclusion is consistent with the 2016 Initial Study impact determination.*

d) The Proposed Project would not involve construction or operation of any major odor sources. Therefore, the Proposed Project would have a **less-than-significant impact** on a substantial number of people due to other emissions, such as odors. *This conclusion is consistent with the 2016 Initial Study impact determination.*

3.4 BIOLOGICAL RESOURCES

	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-significant impact	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 Wildlife or U.S. Fish and Wildlife Service?	☐	☑	☐	☐
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☐	☑	☐
c)	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☑
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?	☐	☐	☐	☑

3.4.1 Setting

The Biological Resources setting is provided in the 2016 Initial Study. Because the Proposed Project now includes construction on approximately 4 acres of land not previously assessed, a supplemental database search and reconnaissance survey were conducted for presence of habitat and occurrence of species in the vicinity of areas to be affected by construction activities. Additional documents reviewed and analyzed included:

- California Natural Diversity Database (California Department of Fish and Wildlife 2023);
- USFWS Information for Planning and Consultation Database (USFWS 2023);
- California Native Plant Society Inventory of Rare and Endangered Plants of California (California Native Plant Society 2023); and
- East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (ECCCHCP) (Jones and Stokes 2006).

Reconnaissance surveys were conducted on May 30, 2023, for presence of habitat and occurrence of species in the vicinity of areas to be affected by construction activities. Vegetation

communities were assessed in the field based on observed plant species composition. Vegetation communities were classified based on *A Manual of California Vegetation* (Sawyer et al. 2011) and cross-referenced with wildlife habitat types as classified in California Statewide Wildlife Habitat Relationships System (Mayer and Laudenslayer 1988). A wetland delineation field survey was conducted on June 8, 2023, based on the finding of water and wetland-obligate plants during the May 30, 2023, survey. The wetland delineation field survey determined the source of water was a leaking water supply tank from an adjacent property. Therefore, no wetlands are present on the project site. The results of the reconnaissance surveys and literature review are summarized in **Appendix B.**

The assessment of potential effects of the Proposed Project is conducted for those species identified in the 2016 Initial Study and Appendix B as having the potential to occur in the project area and be affected by one or more aspects of the project construction activities or operations.

3.4.2 Discussion

a) The Proposed Project, with the modifications described in Section 2, "Project Description," expands the area of affect to include approximately 4 acres immediately adjacent to and east of the WWTP, where the site is characterized as an annual grassland dominated by non-native grasses and forbs. The following summarizes the impact determinations and whether the modifications to the Proposed Project would result in additional impacts or require additional mitigation measures to reduce impacts to less than significant. The 2016 Initial Study contains separate discussions for construction-related and operations-related impacts to 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 Wildlife or U.S. Fish and Wildlife Service. Hence, the discussion below presents construction-related impacts followed by operations-related impacts.

Construction-Related Impacts

The 2016 Initial Study identified potentially significant impacts from construction activities on the special-status species listed below.

- **Special-status plant species**, including, but not limited to large flowered fiddleneck (*Amsinckia grandiflora*), big tarplant (*Blepharizonia plumosa*), and diamond-petaled poppy (*Eschscholzia rhombipetala*), could be adversely affected by ground disturbance (e.g., grading and excavation). Mitigation Measures BIO-1, BIO-2, and BIO-3 are included in the 2016 Initial Study to reduce impacts to less than significant.

- **Special-status amphibians or reptiles**, including habitat for California tiger salamander, silvery legless lizard, California horned lizard, giant garter snake, and San Joaquin whipsnake, could be disturbed by construction activities or adversely affected by stormwater runoff from construction areas. Mitigation Measures BIO-1, BIO-2, BIO-4, and HWQ-1 are included in the 2016 Initial Study to reduce impacts to less than significant.

- **Nesting or foraging birds**, including nesting, burrowing, and foraging habitat for the burrowing owl, foraging habitat for the Swainson's hawk and golden eagle, and nesting

and foraging habitat for other special-status bird species, could be disturbed by construction activities or adversely affected by stormwater runoff from construction areas. Mitigation Measures BIO-1, BIO-2, BIO-5, BIO-6, and HWQ-1 are included in the 2016 Initial Study to reduce impacts to less than significant.

- **Special-status mammals**, including habitat for the American badger and foraging habitats for special-status bats, could be disturbed by construction activities. The 2016 Initial Study includes Mitigation Measures BIO-1, BIO-2, and BIO-7 to reduce potential American badger impacts to less than significant, and Mitigation Measure BIO-1 to reduce the impact to special-status bats to less than significant.

- **Special-status fish** that occur in lower Marsh Creek, including fall-run Chinook salmon (*Oncorhynchus tshawytscha*), could be adversely affected by stormwater runoff from construction areas. Mitigation Measure HWQ-1 is included in the 2016 Initial Study to reduce the impact to less than significant.

Based on the supplemental database search and reconnaissance survey for presence of habitat and occurrence of species in the vicinity of the project area, documented in Appendix B, the species potentially affected by construction activity is largely the same, but there are a few differences in the reptiles and mammals affected. The Coast horned lizard (a special-status reptile), rather than the California horned lizard, has the potential to be affected by construction activity. Also, the ringtail (a special-status mammal) has the potential to be affected by construction activity. Finally, because there is the potential for bat roosts to be disturbed during construction in the new project area, Mitigation Measure BIO-8, *Bats*, has been included to reduce impacts to bats to less than significant, and Mitigation Measure BIO-9 has been included to reduce impacts to ringtail to less than significant.

The mitigation measures below would reduce impacts from Proposed Project construction to special-status species to **less than significant with mitigation.** *This conclusion is consistent with the 2016 Initial Study impact determination.*

MITIGATION MEASURE BIO-1. GENERAL CONSTRUCTION MEASURES.

All contractors and equipment operators will be made aware of the ecological values of the site, and will be given instructions to comply with all mitigation measures.

Construction activities will be limited to a designated work area (including the work corridor and staging areas). The work area will be clearly identified and will be staked and flagged where necessary prior to initiation of construction activities. This will include flagging of riparian and wetland habitats in the vicinity of work areas to ensure their avoidance and protection.

All construction activities, including site preparation and development, will be restricted to daytime hours between 6 a.m. and 5 p.m. on weekdays and non-holidays unless weekend work is unavoidable.

MITIGATION MEASURE BIO-2. PARTICIPATION IN THE ECCCHCP.

The City will participate in the ECCCHCP for the Proposed Project, if applicable to the work sites, to mitigate any potential impacts to special-status species covered under the ECCCHCP. This coverage will allow the City to minimize and compensate for potential effects resulting from construction- and operation-related activities associated with the Proposed Project through implementation of all applicable conservation measures and compensation mechanisms of the ECCCHCP.

The City will conduct Planning Surveys, as necessary, according to the species-specific protocols contained in Section 6.3.1 of the ECCCHCP and will complete an Application Form and Planning Survey Report.

To compensate for unavoidable project-related effects the City will pay either the applicable fee or dedication of land in lieu of the fee as described in Chapter 9, Funding, and in Brentwood Ordinance number 850

MITIGATION MEASURE BIO-3. SPECIAL-STATUS PLANTS.

On suitable land cover types under the ECCCHCP, the City will conduct special-status plant surveys using approved CDFW/USFWS methods during the appropriate season for identification of covered and no take plant species, as well as any additional special-status plant species not covered under the ECCCHCP.

If ECCCHCP-covered special-status plant species are found in the construction areas, the City would implement all applicable conditions on covered activities under the ECCCHCP including Conservation Measure 1.11 “Avoid Direct Impacts on Extremely Rare Plants” and Conservation Measure 3.10 “Plant Salvage when Impacts are Unavoidable.”

If special-status plant species that are not covered by the ECCCHCP are discovered, mitigation measures to reduce impacts to less-than-significant levels would be developed in consultation with appropriate resource agencies.

MITIGATION MEASURE BIO-4. SPECIAL-STATUS AMPHIBIANS AND REPTILES.

Note: this mitigation measure has been changed from BIO-4 in the 2016 Initial Study to refer to Coast horned lizard, rather than California horned lizard.

The City will implement pre-construction surveys, as necessary per the ECCCHCP, for California tiger salamander, silvery legless lizard, western pond turtle, Coast horned lizard, giant garter snake, and San Joaquin whipsnake in annual grassland habitat for the construction areas at the WWTP.

Surveys will be implemented in accordance with methods described in Section 6.4.3 of the ECCCHCP.

If any ECCCHCP -covered species are found (California tiger salamander, silvery legless lizard, western pond turtle, and giant garter snake), all applicable avoidance and minimization measures, construction monitoring, conservation measures, and/or mitigation fees of the ECCCHCP will be implemented.

If any special-status species not covered by the ECCCHCP (California horned lizard and San Joaquin whipsnake) are discovered, measures to reduce impacts to less-than-significant levels would be developed in consultation with CDFW.

MITIGATION MEASURE BIO-5. BURROWING OWLS.

The City will implement pre-construction surveys for burrowing owls or burrows at proposed construction sites with potential habitat in accordance with methods described in Section 6.4.3 of the ECCCHCP.

If the burrowing owls nests or burrows are discovered in the work areas, all applicable avoidance and minimization measures, construction monitoring, conservation measures, and/or mitigation fees for this species in the ECCCHCP will be implemented.

MITIGATION MEASURE BIO-6. OTHER SPECIAL-STATUS BIRDS.

If construction activities are scheduled to occur between February 15 and September 15, preconstruction surveys will be conducted at proposed construction sites within 30 days prior to any such activities to determine whether any nests of special-status birds are present. A qualified biologist will search within 1000 feet of sites for raptor nests, and within 250 feet of sites for passerine nests. Biologists will conduct a visual and aural search of the survey area on foot, using binoculars to scan tree tops for the presence of raptor nests.

If any nests are identified, measures to reduce impacts to less-than-significant levels, such as species-specific buffers, would be developed in consultation with appropriate resource agencies (CDFW and/or USFWS).

MITIGATION MEASURE BIO-7. AMERICAN BADGER.

The City will implement pre-construction surveys for American badgers or their burrows at proposed construction areas with potential habitat in conjunction with burrowing owl surveys.

If any American badgers and/or burrows are found, measures to reduce impacts to less-than-significant levels would be developed in consultation with CDFW, and/or mitigation fees for this species in the ECCCHCP will be implemented.

MITIGATION MEASURE BIO-8. BATS.

Note: this is a new mitigation measure to address potential additional effects to bats.

The City will implement pre-construction surveys for bats roosts at proposed construction areas with potential habitat in conjunction with burrowing owl surveys.

If any bat roosts are found, measures to reduce impacts to less-than-significant levels would be developed in consultation with CDFW, and/or mitigation fees for covered bat species in the ECCCHCP will be implemented.

MITIGATION MEASURE BIO-9. RINGTAIL.

Note: this is a new mitigation measure to address potential additional effects to ringtail.

The City will implement pre-construction surveys for ringtail and their burrows at proposed construction areas with potential habitat in conjunction with burrowing owl surveys.

If any ringtail or ringtail burrows are found, measures to reduce impacts to less-than-significant levels would be developed in consultation with CDFW, and/or mitigation fees for this species in the ECCCHCP will be implemented.

Operations-Related Impacts

The 2016 Initial Study provides detailed analysis demonstrating that Proposed Project operations would have a less-than-significant impact on any candidate, sensitive, or special-status species. The Proposed Project modification to include the BDPS units at the proposed location adjacent to the WWTP would not affect the quality or quantity of effluent discharged to Marsh Creek. Moreover, the BDPS would result in reduced truck trips to and from the facility. It also would not substantially alter the noise or light levels associated with the WWTP. Therefore, the Proposed Project operations would continue to have a **less-than-significant impact** on candidate, sensitive, and special-status species. *This conclusion is consistent with the 2016 Initial Study impact determination.*

b) There is no riparian habitat or other sensitive natural communities in the construction area. The Proposed Project modification to include the BDPS units at the proposed location adjacent to the WWTP would not affect the quality or quantity of effluent discharged to Marsh Creek. Therefore, the Proposed Project would continue to have a **less-than-significant impact** on riparian habitats. *This conclusion is consistent with the 2016 Initial Study impact determination.*

c) No project construction or operations would occur directly in any federally protected wetlands as defined by Section 404 of the Clean Water Act. Therefore, the Proposed Project would have **no impact** 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. *This conclusion is consistent with the 2016 Initial Study impact determination.*

d) As described in the 2016 Initial Study, there are no known migratory wildlife corridors or native wildlife nursery sites in the project area. However, construction activities could temporarily affect the movement of native resident or migratory wildlife that may be present. Mitigation Measure BIO-1 would minimize the potential effects by restricting all project-related activities to the defined work area and limiting construction to daylight hours. The Proposed Project modification to include the BDPS units at the proposed location adjacent to the WWTP would not affect the quality or quantity of effluent discharged to Marsh Creek. Therefore, the Proposed Project would have a **less-than-significant impact** on the movement of migratory fish and wildlife species and on established native resident and migratory wildlife corridors, and use of native wildlife nursery sites. *This conclusion is consistent with the 2016 Initial Study impact determination.*

e) The City does not have a Tree Preservation ordinance. However, Contra Costa County has a Tree Preservation Ordinance that provides for the preservation of certain protected trees in unincorporated areas of the county. Specifically, the county Tree Preservation Ordinance protects indigenous trees, including Valley Oak, that are adjacent to or part of a riparian, foothill woodland or oak savanna area, or part of a stand of four or more trees, measuring twenty inches or larger in circumference (approximately 6.5 inches in diameter) as measured four and one-half feet from ground level (also referred to as "diameter at breast height"). Because the two Valley Oak trees to be removed are not adjacent to or part of a riparian, foothill woodland or oak savanna area, or part of a stand of four or more trees, or measure twenty inches or larger in circumference, removal of these two trees would not conflict with the Contra Costa Tree Preservation Ordinance and there would be **no impact**. *This conclusion is consistent with the 2016 Initial Study impact determination.*

f) The City would participate in the ECCCHCP for the Proposed Project. This coverage would allow the City to minimize and compensate for potential effects resulting from construction- and operation-related activities associated with the Proposed Project. Therefore, the Proposed Project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan and there would be **no impact**. *This conclusion is consistent with the 2016 Initial Study impact determination.*

3.5 CULTURAL RESOURCES

	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-significant impact	No Impact
a)	Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☐	☑
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☑	☐	☐
c)	Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☑	☐	☐

3.5.1 Setting

Efforts to identify cultural resources in the project area consist of investigations in 2014 and 2016, documented in the 2016 Initial Study, Section 3.5, "Cultural Resources." Additional research and surveys were completed in July 2023 by Natural Investigations Company (Sacramento, CA) for preparation of this Supplemental Initial Study (Natural Investigations Company 2023).

A California Historical Resources Information System records search was conducted by the Northwest Information Center to determine whether prehistoric or historic cultural resources are previously recorded in the boundaries of the Proposed Project and surrounding area, the extent to which the Proposed Project site and surrounding area have been previously surveyed, and the number and type of cultural resources within a 0.25-mile radius of the Proposed Project. The

archival search of the archaeological and historical records, national and state databases, and historic maps included the following sources.

- National Register of Historic Places: listed properties
- California Register of Historical Resources: listed resources
- Historic Property Data File for Solano County
- Archaeological Determinations of Eligibility
- Built Environment Resources Directory
- California Inventory of Historical Resources
- California Historical Landmarks
- California Points of Historical Interest
- Historical Bureau of Reclamation General Land Office land plat maps

The records search identified three previous surveys in the Proposed Project area limits but did not identify any previously recorded cultural resources in it. In addition, the records search identified nine previous surveys and two previously recorded cultural resources in the 0.25-mile radius of the Proposed Project area limits.

A Sacred Lands File search with the Native American Heritage Commission (NAHC) found no sensitive Native American cultural resources in the Proposed Project area. The NAHC provided contact information for tribal members and organizations affiliated with the region and recommended that they be contacted for more information on the potential for Native American cultural resources within or near the Proposed Project area limits. The tribal members and organizations were contacted via letter and phone, and no comments regarding the Proposed Project were received (Natural Investigations Company 2023).

A pedestrian surface survey of the area where the BDPS units and realigned path would be located was conducted on June 28, 2023. The pedestrian survey examined the area for cultural material (e.g., flaked stone tools, toolmaking debris, stone milling tools, or fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions and features indicative of the former presence of structures or buildings (e.g., postholes, foundations), or historic-era debris (e.g., metal, glass, ceramics). The pedestrian survey did not identify any prehistoric or historic sites or artifacts or any evidence to suggest the presence of buried deposits of cultural resources. On the contrary, the pedestrian survey identified that the Proposed Project area is previously disturbed by construction of asphalt trails and installation of buried infrastructure (Natural Investigations Company 2023).

3.5.2 Discussion

a) Based on the negative results of the California Historic Resources Information System search and Native American outreach efforts, as well as the negative findings of the field survey, there is no indication that the Proposed Project would impact any historical resources as defined under CEQA Section 15064.5. Therefore, the Proposed Project would have **no**

impact on historical resources. *This conclusion is consistent with the 2016 Initial Study impact determination*.

b) Temporary construction activities for the Proposed Project would involve ground disturbing activities, including grading, and could involve excavations to an estimated maximum depth of about six feet below ground surface for underground utility installations (e.g., pipes) and facility foundations. No archaeological resources pursuant to CEQA Section 15064.5 were identified within the Proposed Project area limits through the database record searches or the field survey. However, construction activities have the potential to encounter buried archaeological resources as the lack of surface indications does not always ensure that there are no buried sites, features, or objects of significance. Buried archaeological resources may include but are not limited to deposits of stone, bone and shell artifacts, dark gray "midden" sediments, historic trash deposits, and stone or adobe foundations. Therefore, the Proposed Project could have a potentially significant impact on archaeological resources. With implementation of Mitigation Measure CULT-1, this impact would be **less than significant with mitigation**. *This conclusion is consistent with the 2016 Initial Study impact determination*.

MITIGATION MEASURE CULT-1. ACCIDENTAL DISCOVERY OF ARCHAEOLOGICAL RESOURCES.

Note: this mitigation measure has been revised to provide specificity regarding where work can and cannot occur in the event of discovery of potential archaeological resources.

If any prehistoric or historic artifacts, or other indications of archaeological resources such as unusual deposits of stone, bone or shell, stone artifacts, or historic trash deposits or foundations are discovered once ground-disturbing activities are underway, work shall be halted within 50 feet of the find(s) and a qualified archaeologist (i.e., an archaeologist that meets the qualifications at 36 CFR Part 61) shall be retained to assess its potential significance. If the find is not significant, then no additional cultural resources investigations are necessary and Project work may resume in the area of the find. If the find is determined to be a historical or unique archaeological resource, contingency funding and a time allotment to allow for implementation of avoidance measures or appropriate mitigation shall be made available, as provided in §15064.5 of the CEQA Guidelines. Work may continue on other parts of the project site while historical or unique archaeological resource mitigation takes place on-site.

c) Based on the documentary research described above, no evidence suggests that any prehistoric- or historic-era marked or unmarked human interments are present within or in the immediate vicinity of the project site. However, there is the potential for unmarked, previously unknown Native American or other graves to be present and be uncovered during construction activities. California law recognizes the need to protect historic-era and Native American human burials, skeletal remains, and grave-associated items from vandalism and inadvertent destruction and any substantial change to or destruction of these resources would be a significant impact. Implementation of the Mitigation Measure CULT-2 would reduce this impact to **less than significant with mitigation**. *This conclusion is consistent with the 2016 Initial Study impact determination*.

MITIGATION MEASURE CULT-3. ACCIDENTAL DISCOVERY OF HUMAN REMAINS.

Note: this mitigation measure has been revised to provide specificity regarding where work can and cannot occur in the event of discovery of human remains.

In the event of the accidental discovery or recognition of any human remains, all work within 100 feet of the find shall cease immediately until compliance with the provisions of §15064.5(e)(1) and (2) of the CEQA Guidelines has occurred. The CEQA Guidelines specify that in the event of the discovery of human remains other than in a dedicated cemetery, the Contra Costa County Coroner must be notified to determine if an investigation into the cause of death is required. If the coroner determines that the remains are Native American, then, within 24 hours, the coroner must notify the Native American Heritage Commission, which in turn will notify the most likely descendant who may recommend treatment of the remains and any grave goods. If the Native American Heritage Commission is unable to identify a most likely descendant or the most likely descendant fails to make a recommendation within 24 hours after notification by the Native American Heritage Commission, or the landowner or his authorized agent rejects the recommendation by the most likely descendant and mediation by the Native American Heritage Commission fails to provide a measure acceptable to the landowner, then the landowner or his authorized representative shall rebury the human remains and grave goods with appropriate dignity at a location on the property not subject to further disturbances.

3.6 ENERGY

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

3.6.1 Setting

Air Quality regulations, described in the 2016 Initial Study, Section 3.3, "Air Quality," to reduce emissions also ensure that wasteful, inefficient, or unnecessary consumption of energy resources does not occur by off-road diesel vehicles, such as construction equipment.

3.6.2 Discussion

a,b) Proposed Project construction would involve consumption of energy resources related to use of oil, gasoline, and diesel fuel for construction work vehicle trips, hauling truck trips, materials delivery truck trips, and operation of off-road construction equipment. Diesel equipment would not be operated on each day of construction, so there would be days during the construction period when no use of diesel would occur. Diesel-powered construction

equipment is regulated by the California Air Resources Board (CARB) In-Use Off-Road Diesel Vehicle Regulation. This regulation is intended to reduce emissions from in-use off-road, heavy-duty diesel vehicles by limiting idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles into construction fleets, and retiring, replacing, or repowering older engines. This regulation would result in the use of fuel-efficient vehicles during construction of the Proposed Project. Therefore, the Proposed Project would have a **less-than-significant impact** on energy consumption during project construction or operation, and **no impact** with respect to conflict with or obstruct a state or local plan for renewable energy and energy efficiency. *This is a new impact determination relative to the 2016 Initial Study. The 2016 Initial Study did not address this question because it was not part of the State CEQA Guidelines Appendix G Environmental Checklist at the time of preparation.*

3.7 GEOLOGY AND SOILS

	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-significant impact	No Impact
a)	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☑	☐	☐
	ii) Strong seismic ground shaking?	☐	☑	☐	☐
	iii) Seismic-related ground failure, including liquefaction?	☐	☑	☐	☐
	iv) Landslides?	☐	☐	☐	☑
b)	Result in substantial soil erosion or the loss of topsoil?	☐	☑	☐	☐
c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☑	☐	☐
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 wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☑
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☑	☐	☐

3.7.1 Setting

The Geology and Soils setting is provided in the 2016 Initial Study.

3.7.2 Discussion

a, c, d) As discussed in the 2016 Initial Study, there is the potential for facilities to be constructed in areas that contain expansive soils, have elevated risk of liquefaction, or exhibit corrosive soil properties. These properties have potential to compromise the structural integrity of the proposed wastewater treatment unit process structures. Structural failure of the proposed facilities would potentially pose a risk to life, property, and environmental resources. The potential exposure of facilities to seismic hazards and surface soil hazards is a potentially significant impact. This impact would be **less than significant with mitigation** with implementation of Mitigation Measure GEO-1. *This conclusion is consistent with the 2016 Initial Study impact determination.*

MITIGATION MEASURE GEO-1. CONDUCT GEOTECHNICAL INVESTIGATION AND IMPLEMENT RECOMMENDED MEASURES.

The City will conduct a geotechnical investigation for the Proposed Project that evaluates site-specific conditions related to the potential for ground rupture, risk to features due to ground shaking, risk of soil liquefaction, and risk of expansive soils. Based on subsurface conditions, the proposed facilities will be designed to withstand the effects of strong ground shaking and the effects of soil liquefaction.

Based on the results of the geotechnical investigation, the City and its contractor(s) will be responsible for implementing the design specification and performance criteria according to Uniform Building Code (UBC) the City's Seismic Hazards policies for pipeline construction, trenching, backfill materials, and other recommendations.

b) The temporary construction-related activities have the potential to result in localized and temporary soil erosion, in particular when exposed to rainfall and stormwater runoff events on a seasonal basis during the winter rainfall period. However, the Proposed Project would not involve any operations-related activities that would cause or contribute to any long-term soil erosion. The potential for temporary construction-related erosion is considered a potentially significant impact. Mitigation Measure HWQ-1 is identified in Section 3.9, "Hydrology and Water Quality," and would require the City and general contractor(s) for the Proposed Project to implement construction-related erosion and stormwater management measures. This impact would be **less than significant with mitigation** with implementation of Mitigation Measure HWQ-1. *This conclusion is consistent with the 2016 Initial Study impact determination.*

e) The Proposed Project would not contribute to use of septic tanks or alternative wastewater disposal systems. Therefore, there would be **no impact** on soils utilized for septic tanks or alternative wastewater disposal systems. *This conclusion is consistent with the 2016 Initial Study impact determination.*

f) As described in the 2016 Initial Study, excavation into older Pleistocene units has the potential to encounter vertebrate fossils, which would be a potentially significant impact on paleontological resources. This impact would be **less than significant with mitigation** with

implementation of Mitigation Measure CULT-2[1]. *This conclusion is consistent with the 2016 Initial Study impact determination.*

MITIGATION MEASURE CULT-2. ACCIDENTAL DISCOVERY OF PALEONTOLOGICAL RESOURCES.

A qualified professional paleontologist shall periodically monitor excavations to check for fossils that may be unearthed. If vertebrate fossils (e.g., teeth, bones) are unearthed by the construction crew anywhere on the project, the finds should be set aside and all excavation activity cease at the specific place of discovery until the paleontologist has assessed the find and, if deemed significant, salvaged the find in a timely manner. The decision to conduct paleontological salvage operations will be determined by the paleontologist in consultation with city staff. Work may proceed on other parts of the project while assessment and/or salvage by the paleontologist is underway. Finds determined significant by the paleontologist shall be conserved and deposited with a recognized repository such as the University of California Museum of Paleontology.

3.8 GREENHOUSE GAS EMISSIONS

	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-significant impact	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?	☐	☐	☑	☐

3.8.1 Setting

The Greenhouse Gas Emissions setting is provided in the 2016 Initial Study.

3.8.2 Discussion

a,b) The 2016 Initial Study presents estimates of greenhouse gas emissions (GHGs) generated from construction and operation of the Proposed Project. Based on the modeling conducted, project construction and operation of the Proposed Project with the Solids Dryer Option would have resulted in a maximum increase in emissions of 2,390 metric tons of carbon dioxide equivalents per year ($MTCO_2e$/year) compared to existing conditions. Approximately one-half of the carbon dioxide emissions would have been associated with the use of natural gas for the biosolids dryer. Because the projected emissions level was less than the BAAQMD threshold of significance of 10,000 $MTCO_2e$/year, the 2016 Initial Study concluded project-generated emissions would not result in a cumulatively considerable net

[1] In the 2016 Initial Study, the Environmental Checklist question addressing paleontological resources was located under the heading "Cultural Resources." Hence, this mitigation measure was given the number "CULT-2." To avoid confusion when implementing the Mitigation Monitoring and Reporting Program, this mitigation measure has the same name as in the 2016 Initial Study even though it is now under the heading "Geology and Soils."

increase of GHGs. The 2016 Initial Study also concluded that the Proposed Project would not conflict with GHGs reduction plans.

Table 2 presents the carbon dioxide emissions for each component of the Proposed Project with the BDPS, compared to the emissions from the Proposed Project with Solids Dryer Option. The GHGs from natural gas use to operate the BDPS units would be significantly less than what would have been generated by the Proposed Project with the Solids Dryer Option because the BDPS units use a different technology to process the biosolids. Data supplied by the BDPS vendor shows that each BDPS unit would generate 1,315 $MTCO_2e$/year from biogenic sources (**Appendix A**). Thus, the two proposed BDPS units combined would generate 2,630 $MTCO_2e$/year from biogenic sources. Carbon dioxide emissions from biogenic sources are emissions resulting directly from the combustion, decomposition, or processing of biologically based materials other than fossil fuels. Emissions from biogenic sources are considered carbon neutral because the carbon dioxide being emitted was originally removed from the atmosphere. Therefore, emissions amounts are shown in Table 2 for the total amount from the Proposed Project and the amount from non-biogenic sources.

GHGs generated by the Proposed Project would still be less than the BAAQMD threshold of significance of 10,000 $MTCO_2e$/year. Therefore, the Proposed Project would have a **less-than-significant impact** on GHGs and would not conflict with GHGs reduction plans, policies, or regulations. *This conclusion is consistent with the 2016 Initial Study impact determination*.

Table 2. Change in Greenhouse Gas Emissions for Proposed Project Operations Compared to Existing Conditions ($MTCO_2e$/year).

Project Parameter	2016 Initial Study Proposed Project with Solids Dryer Option [a]	Proposed Project with BDPS Units
Employee Trips	5	5
Hauling Trips	-19	-19
Electricity Use	1,043	1,043
Natural Gas Use	1,298	8
Process Emissions	40	2,670 [b,c]
Amortized Construction Emissions	23	23
Total Emissions	2,390	3,730
Total Emissions (non-biogenic sources)	2,390	1,100 [c]
Threshold of Significance	10,000	
Exceed Threshold?	No	No

BDPS = biosolids dryer and pyrolysis system; $MTCO_2e$/year = metric tons of carbon dioxide equivalent emissions per year
[a] See 2016 Initial Study for detail on model inputs, assumptions, and project-specific modeling parameters.
[b] Process emissions include 2,630 $MTCO_2e$/year from the BDPS units from biogenic sources.
[c] Refer to text regarding explanation of biogenic and non-biogenic sources of carbon dioxide.

3.9 HAZARDS AND HAZARDOUS MATERIALS

	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-significant impact	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 or excessive noise for people residing or working in the project area?	☐	☐	☐	☑
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑
g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☑

3.9.1 Setting

The Hazards and Hazardous Materials setting is provided in the 2016 Initial Study.

3.9.2 Discussion

a-g) The Proposed Project does not involve any construction or change in operations that would change the use of any hazardous materials or affect or generate hazardous waste. Therefore, the Proposed Project would have **no impact** on hazards and hazardous materials. *This conclusion is consistent with the 2016 Initial Study impact determination*.

3.10 HYDROLOGY AND WATER QUALITY

	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-significant impact	No Impact
a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☑	☐	☐

	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-significant impact	No Impact
b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☑	☐
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☑	☐
	i) result in a substantial erosion or siltation on- or off-site;	☐	☐	☑	☐
	ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☑	☐
	iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☑	☐
	iv) impede or redirect flood flows?	☐	☐	☑	☐
d)	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☑
e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☑

3.10.1 Setting

The Hydrology and Water Quality setting is provided in the 2016 Initial Study.

3.10.2 Discussion

a) As discussed in the 2016 Initial Study, Proposed Project construction activities could result in the discharge of constituents of concern to receiving waters in the project area (e.g., Marsh Creek and other small streams and drainage channels), which could result in temporary water quality degradation that could be potentially significant. This impact would be **less than significant with mitigation** with implementation of Mitigation Measure HWQ-1 included in the 2016 Initial Study. *This conclusion is consistent with the 2016 Initial Study impact determination.*

MITIGATION MEASURE HWQ-1. IMPLEMENT CONSTRUCTION BMPS FOR WATER QUALITY PROTECTION.

The City, or its designated general contractor, shall obtain authorization of project construction activities under the SWRCB's NPDES Construction General Permit (Order No. 2009-0009-DWQ/NPDES Permit No. CAS000002, and any applicable amendments), for any activities not subject to exemption from the permit. The Stormwater Pollution and Prevention Plan (SWPPP) prepared for permit will describe the BMPs that will be used to avoid and minimize potential construction-related contaminant discharges at construction sites. Compliance with this mitigation shall be included as a condition of the construction contract(s) between the City and applicable construction contractor(s), and as appropriate, shall additionally be included in final project designs and specifications that

are prepared for the Proposed Project. The City will be responsible for ensuring that the construction is implemented in accordance with the Construction General Permit.

The 2016 Initial Study also addresses operations-related water quality effects from the Proposed Project and concluded that there could be a potentially significant impact on dissolved oxygen levels in Marsh Creek. Therefore, the 2016 Initial Study included Mitigation Measure HWQ-2 to reduce this water quality impact to less than significant. The Proposed Project modifications addressed by this Supplemental Initial Study would not affect the WWTP processes or treated wastewater quality relative to that described in the 2016 Initial Study. Therefore, the Proposed Project would still have a **less-than-significant impact with mitigation**. *This conclusion is consistent with the 2016 Initial Study impact determination.*

MITIGATION MEASURE HWQ-2. DISSOLVED OXYGEN EVALUATION AND CONTROL MEASURES.

Upon initiation of increased recycled water deliveries for the Proposed Project, the City shall evaluate Marsh Creek for adverse DO-related effects to the fish community, and implement control measures, if necessary. During periods when recycled water is being distributed from the WWTP during the mid-summer months (i.e., July and August), and background Marsh Creek streamflow levels are low, the City will monitor receiving water DO to determine whether DO falls to levels that may result in adverse effects to fish and invertebrates within lower Marsh Creek. If potentially adverse DO levels are observed from monitoring, the City will implement fish and invertebrate surveys upstream and downstream of the WWTP discharge to determine whether actual adverse effects (e.g., reduced species diversity, change in expected community structure, loss of sensitive organisms) are occurring. Should adverse effect be identified through field surveys that are determined to be attributable to the reduced effluent discharge, the City shall implement corrective measures to substantially reduce or eliminate the adverse effects. Such corrective measures include, but may not be limited to, reducing the amount of water used for recycled water irrigation.

b) As discussed in the 2016 Initial Study, the original Proposed Project involved construction activity on approximately 4 acres of existing earthen areas within the existing WWTP site to erect the new treatment unit processes. With the project modifications described in Section 2.4, Project Components, the area affected within the existing WWTP is reduced by approximately one-half acre to 3.5 acres. The addition of approximately 4 acres of new impervious surfaces to the WWTP for the BDPS units would make the total area affected by construction activities approximately 7.5 acres. New impermeable surfaces may reduce the potential for groundwater recharge at a site. However, the new amount of impervious area is small relative to the project area and available region-wide groundwater recharge areas. Therefore, the minor potential reduction in groundwater recharge as a result of the Proposed Project would not measurably affect groundwater hydrology. Therefore, the Proposed Project would have a **less-than-significant impact** on groundwater supplies and groundwater recharge. *This conclusion is consistent with the 2016 Initial Study impact determination.*

c) Neither the construction nor operation of the Proposed Project would substantially alter the existing drainage patterns at the site and there would be no changes made to any constructed

stormwater drainage systems or natural stream channels. Therefore, the Proposed Project would not affect flows in any drainage or stream channel. The additional impervious surfaces constructed would be approximately 4 acres, and additional stormwater drainage and runoff from these surfaces would be incorporated into the final site design to ensure that site runoff is appropriately conveyed to a drainage system. Potential erosion associated with drainage areas also would be addressed in the project design, and thus minor amounts additional runoff would not substantially contribute to or change erosion and siltation rates compared to existing conditions. Therefore, the Proposed Project would have a **less-than-significant impact** on existing drainage patterns of the site or area. *This conclusion is consistent with the 2016 Initial Study impact determination.*

d) The Proposed Project not located in a flood zone, or an area subject to exposure to seiche or tsunami. Therefore, the Proposed Project would have **no impact** on the risk release of pollutants due to project inundation from flooding, seiche, or tsunami. *This conclusion is consistent with the 2016 Initial Study impact determination.*

e) WWTP discharges to Marsh Creek are regulated by an NPDES permit issued by the Central Valley Regional Water Quality Control Board (Central Valley Water Board). The NPDES permit requirements implement federal and state water quality regulations, including relevant water quality objectives and implementation provisions in state water quality control plans. As described above in paragraph "b," the Proposed Project would not result in depletion of groundwater or impede groundwater recharge in the project area. Therefore, the Proposed Project would have **no impact** with regard to conflicting with or obstructing the implementation of a water quality control plan or sustainable groundwater management plan. *This is a new impact determination relative to the 2016 Initial Study. The 2016 Initial Study did not address this question because it was not part of the State CEQA Guidelines Appendix G Environmental Checklist at the time of preparation.*

3.11 LAND USE AND PLANNING

	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-significant impact	No Impact
a)	Physically divide an established community?	☐	☐	☐	☑
b)	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☑

3.11.1 Setting

The Land Use and Planning setting is provided in the 2016 Initial Study.

3.11.2 Discussion

a) The Proposed Project would not involve any land use changes and no communities would be physically divided. Therefore, the Proposed Project would have **no impact** on established communities. *This conclusion is consistent with the 2016 Initial Study impact determination*.

b) The City obtained coverage under the East Contra Costa County Habitat Conservation Plan (ECCCHCP) for the WWTP Phase II Expansion Project. The City would submit an application to the East Contra Costa County Habitat Conservancy to obtain an addendum to the HCP coverage for the project modifications. Therefore, the Proposed Project would have **no impact** due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. *This conclusion is consistent with the 2016 Initial Study impact determination*.

3.12 MINERAL RESOURCES

	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-significant impact	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?	☐	☐	☐	☑

3.12.1 Setting

The Mineral Resources setting is provided in the 2016 Initial Study.

3.12.2 Discussion

a,b) The Proposed Project is not in an area used for mineral extraction. Therefore, the Proposed Project would have **no impact** on availability of known mineral resources of value to the region and the residents of the state, or the availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. *This conclusion is consistent with the 2016 Initial Study impact determination*.

3.13 NOISE

	Would the project result in:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-significant impact	No Impact
a)	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☑	☐	☐
b)	Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☑	☐
c)	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑

3.13.1 Setting

The Noise setting is provided in the 2016 Initial Study.

3.13.2 Discussion

a) As discussed in the 2016 Initial Study, under project operations, the noise generated from the unit processes would be similar to that which currently occurs at the WWTP. However, construction activities may result in potentially significant generation of a temporary increase in ambient noise levels in the vicinity of the project in excess of standards. With implementation of Mitigation Measure NZ-1, this impact would be **less than significant with mitigation**. *This conclusion is consistent with the 2016 Initial Study impact determination*.

MITIGATION MEASURE NZ-1. MINIMIZE CONSTRUCTION-RELATED NOISE.

To reduce noise-related impacts to occupants of nearby residential land uses, the following BMPs will be incorporated into the plans and design of the Proposed Project:

Noise-generating construction activities will be limited to the weekday and weekend restrictions specified by the City's Municipal Code. All construction equipment will be required to have sound-control devices no less effective than those provided on the original equipment. No equipment will have an unmuffled exhaust system.

Additional noise-reduction measures will be implemented as appropriate and practical, including but not limited to: (a) locating staging areas and stationary construction equipment as far away from sensitive receptors as feasible and direct noise emissions away from receptors; (b) limiting equipment idling time; and, (c) notifying nearby residents 48 hours in advance of starting construction in an area not previously affected by recent construction activities.

Require construction contractor to have a designated "noise disturbance coordinator" who will be responsible for responding to noise complaints, determining the causes of the noise, and instituting reasonable measures (as warranted) to correct the problem.

b) As discussed in the 2016 Initial Study, the Proposed Project would not involve the long-term use of any equipment or processes that would result in potentially substantial levels of ground vibration. Temporary construction-related activities for the Proposed Project may result in intermittent ground vibration. However, predicted ground vibration levels at nearby structures would not be anticipated to exceed minimum perceptible thresholds. Therefore, the Proposed Project would have a **less-than-significant impact** on generation of excessive groundborne vibration or groundborne noise levels. *This conclusion is consistent with the 2016 Initial Study impact determination*.

c) The Proposed Project is not located in the vicinity of an airport. Therefore, the Proposed Project would have **no impact** on people residing or working in the project area to excessive noise levels, where those people reside or work in the vicinity of an airport. *This conclusion is consistent with the 2016 Initial Study impact determination*.

3.14 POPULATION AND HOUSING

	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-significant impact	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 people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑

3.14.1 Setting

The Population and Housing setting is provided in the 2016 Initial Study.

3.14.2 Discussion

a,b) As described in the 2016 Initial Study, the purpose of the WWTP Phase II Expansion Project is to accommodate future increased wastewater flows associated with development and population growth identified in the City's General Plan. Furthermore, the increased supply of recycled water would not induce additional population growth, displace housing, or displace residents. The project modifications for biosolids treatment would not increase treatment capacity, thus would not be growth inducing. The path realignment similarly would not be growth inducing. There is no housing in the area where the BDPS units and realigned path would be located. Therefore, the Proposed Project would have **no impact** on population growth in the area or the displacement of people or housing. *This conclusion is consistent with the 2016 Initial Study impact determination*.

3.15 PUBLIC SERVICES

	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-significant impact	No Impact
a)	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:				
	i) Fire protection?	☐	☐	☐	☑
	ii) Police protection?	☐	☐	☐	☑
	iii) Schools?	☐	☐	☐	☑
	iv) Parks?	☐	☐	☑	☐
	v) Other public facilities?	☐	☐	☐	☑

3.15.1 Setting

The Public Services setting is provided in the 2016 Initial Study.

3.15.2 Discussion

a) The Proposed Project would not cause changes to the level of fire and police protection services, schools, or other public services. Therefore, the Proposed Project would have **no impact** on the need for fire protection, police protection, schools, or other public facilities. *This conclusion is consistent with the 2016 Initial Study impact determination.*

The Proposed Project would involve temporary construction-related activities affecting the use of the path connecting Sunset Park to Marsh Creek Trail. The public would not be able to use the path during construction of the realigned portion and installation of the new WWTP perimeter fencing. Construction of these project elements is anticipated to take approximately one month, after which the public would have access to the path. There are two nearby access points to Marsh Creek Trail, one is approximately 0.25 mile west of Sunset Park adjacent to the Black Diamond Kids Center and the other is approximately 0.5 mile west of Sunset Park near the intersection of Sunset Road and Jane Way. Because there are nearby access points to Marsh Creek Trail and closure of bike-walking path during realignment would be a short-term effect to users, the Proposed Project would have a **less-than-significant impact** on the need for new park services. *This is a change from the 2016 Initial Study impact determination, which concluded there would be no impact to parks.*

3.16 RECREATION

	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-significant impact	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?	☐	☐	☐	☑

3.16.1 Setting

The Recreation setting is provided in the 2016 Initial Study.

3.16.2 Discussion

a) As described in Section 3.15, "Public Services," the Proposed Project would involve temporary construction-related activities affecting the use of the path connecting Sunset Park to Marsh Creek Trail, during which the public would not be able to use the path. However, there are two nearby access points to Marsh Creek Trail and construction activities would be of short duration. Therefore, the Proposed Project would have a **less-than-significant impact**

on neighborhood parks and regional parks or other recreational facilities. *This is a change from the 2016 Initial Study impact determination, which concluded there would be no impact on recreation.*

b) The Proposed Project's effect on the recreational use of the path connecting Sunset Park to Marsh Creek Trail would be temporary. Furthermore, the Proposed Project would not result in an increase in population resulting in an associated increase in demand for recreational facilities. Therefore, the Proposed Project would have **no impact** on the requirement for construction or expansion of recreational facilities. *This conclusion is consistent with the 2016 Initial Study impact determination.*

3.17 TRANSPORTATION

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

3.17.1 Setting

The Transportation setting is provided in the 2016 Initial Study.

3.17.2 Discussion

a,c,d) The Proposed Project would not require any changes to the City's roads or access points to the WWTP. The realigned path would still connect Sunset Park and the Marsh Creek Trail. Therefore, the Proposed Project would have **no impact** on the City's circulation system, hazards due to geometric design or incompatible uses, or emergency access. *This conclusion is consistent with the 2016 Initial Study impact determination.*

b) Per Section 15064.3 of the State CEQA Guidelines generally analysis of vehicle miles traveled (VMT) attributable to a Proposed Project is the most appropriate measure of transportation impacts. The VMT refers to the amount of distance of automobile travel attributable to a specific project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in Section 15064.3(b)(2) regarding roadway capacity, a project's effect on automobile delay does not constitute a significant environmental impact under CEQA. As provided in Section 15064.3(b)(1), projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.

The Proposed Project would not create new developments or other infrastructure that would result in additional VMTs relative to existing conditions. Although the construction component of the project would cause additional VMTs, these VMTs would be temporary. Further, the temporary additional VMTs would not substantially affect transit and non-motorized vehicle travel or regional VMTs. As described in Section 2.6, "Project Operations," the project would result in a decrease of 260 truck trips per year to haul biosolids. Assuming the distance for biosolids hauling is 21 miles (consistent with the 2016 Initial Study), the project would reduce VMTs by 5,460 miles. As such, the Proposed Project would have a **less-than-significant impact** on the potential to conflict with or be inconsistent with State CEQA Guidelines Section 15064.3, subdivision(b). *This is a new impact determination relative to the 2016 Initial Study. The 2016 Initial Study did not address this question because it was not part of the State CEQA Guidelines Appendix G Environmental Checklist at the time of preparation.*

3.18 TRIBAL CULTURAL RESOURCES

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

3.18.1 Setting

Overview of Tribal Use of the Proposed Project Site

The Proposed Project is located in the ethnographic territory of the Eastern Miwok, near the boundary between the territory of the Bay and Plains Miwok. Miwok primarily relied on gathering wild foods and hunting mammals (e.g., mule deer, tule elk, antelope) for subsistence. Among the plant foods exploited were greens collected in the spring and acorns collected in the fall. Miwok use the bow and arrow, snares, traps, nets, and enclosures or blinds for hunting land mammals and birds. For fishing, they made canoes from tule, balsa, or logs, and used harpoons, hooks, nets, and basketry traps. To collect plant resources, they used sharpened digging sticks, long poles for dislodging acorns and pinecones, and a variety of woven tools. Political units

among the Miwok were structured by similarities in language and ethnicity, and villages were divided into "tribelets" that controlled specific lands and the natural resources within that territory. (Natural Investigations Company 2023)

Overview of Assembly Bill 52

Assembly Bill (AB) 52 establishes that, "A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (PRC Section 21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3).

To initiate the AB 52 consultation process, Tribes must submit a written request to a lead agency to be informed through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the Tribe (PRC Section 21080.3.1[b]). The following is the City's list of Tribes that have requested notification of proposed projects:

- Amah Mutsun Tribal Band of Mission San Juan Bautista
- Chicken Ranch Rancheria of Me-Wuk Indians
- Confederated Villages of Lisjan
- Guidiville Indian Rancheria
- Indian Canyon Mutsun Band of Costanoan
- Muwekma Ohlone Indian Tribe of the San Francisco Bay Area
- Nashville Enterprise Miwok-Maidu-Nishinam Tribe
- North Valley Yokuts Tribe
- Ohlone Indian Tribe
- Tule River Indian Tribe
- Wilton Rancheria
- Wuksache Indian Tribe/Eshom Valley Band

On June 15, 2023, the City sent AB 52 notification letters via both U.S. mail and email to the Tribes describing the Proposed Project. The letter included a project description and map depicting the project location. Pursuant to PRC 21080.3.1 (b), the Tribes had thirty days from the receipt of the letter to request, in writing, consultation with the City regarding the Proposed Project. The City received a request for consultation from Wilton Rancheria on August 8, 2023, via email to Casey Wichert, Director of Public Works. No other Tribes requested consultation on the project. Mr. Wichert met with Wilton Rancheria's representative, Venesa Kremer, Lead Monitor and Cultural Resource Assistant on August 15, 2023, along with Cindy Arrington of Natural Investigations Company to discuss the Proposed Project. The outcome of the meeting was: (1) Natural Investigations Company provided a copy of the cultural resources report and CHRIS data to Ms. Kremer; (2) Ms. Kremer provided an inadvertent discovery plan for the

City's consideration; and (3) the City sent Ms. Kremer the proposed inadvertent discovery mitigation measures to be adopted by the City as part of the Proposed Project.

3.18.2 Discussion

a) Based on the negative results of the California Historic Resources Information System search and Native American outreach efforts, as well as the negative findings of the field survey, there is no indication that the Proposed Project contain any Native American resources eligible for listing in the California Register of Historical Resources or local register nor does it contain any resources determined by the lead agency to be significant tribal cultural resources. Nevertheless, it is possible that maintenance activities have the potential to encounter buried archaeological resources that could be considered tribal cultural resources if they are of Native American origin. Buried tribal cultural resources may include but are not limited to deposits of stone, bone and shell artifacts, dark gray "midden" sediments, or cemeteries, which is a potentially significant impact. Implementation of Mitigation Measures CULT-1, CULT-3, and TCR-1 would reduce impacts to tribal cultural resources to a **less-than-significant impact with mitigation**. *This is a new impact determination relative to the 2016 Initial Study. The 2016 Initial Study did not address this question because it was not part of the State CEQA Guidelines Appendix G Environmental Checklist at the time of preparation.*

MITIGATION MEASURE TCR-1. INCIDENTAL DISCOVERY OF TRIBAL CULTURAL RESOURCES.

Note: this is a new mitigation measure to address potential additional effects to tribal cultural resources.

If resources of Native American origin are discovered once ground-disturbing activities are underway, the City shall contact local Native Americans to consult on the find. If the find is determined to be a tribal cultural resource, contingency funding, and a time allotment to allow for implementation of avoidance measures or appropriate mitigation determined in consultation with local Native Americans shall be made available. Work may continue on other parts of the Proposed Project site while tribal cultural resource mitigation takes place.

3.19 UTILITIES AND SERVICE SYSTEMS

	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-significant impact	No Impact
a)	Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☑
b)	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☑
c)	Result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has	☐	☐	☐	☑

	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-significant impact	No Impact
	adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				
d)	Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☑
e)	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☑

3.19.1 Setting

The Utilities and Service Systems setting is provided in the 2016 Initial Study.

3.19.2 Discussion

a) Construction of the new BDPS at the WWTP site would include features onsite to accommodate a minor increase in the amount of stormwater drainage generated from additional impervious surfaces (e.g., building roof runoff, pavement drainage). The Proposed Project would not require modifications to any offsite stormwater drainage systems. The realigned path would have an impervious area similar to existing conditions, thus would not generate additional runoff. The Proposed Project would have no effect on the City's water supply, electric power, natural gas, or telecommunications facilities. The BDPS would have no effect on WWTP capacity, as defined in the 2016 Initial study. Therefore, the Proposed Project would have **no impact** on water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities. *This conclusion is consistent with the 2016 Initial Study impact determination.*

b,c) These resource topics are not relevant to the Proposed Project. Therefore, the Proposed Project would have **no impact** on water supplies or wastewater treatment demand. *This conclusion is consistent with the 2016 Initial Study impact determination.*

d,e) The new BDPS would be operated primarily to produce biochar that would be land applied within the City or hauled offsite by the BDPS vendor for sale. If only the biosolids drying system is operated or if the BDPS is out of service for an extended period, then dewatered biosolids would be produced, which would be hauled to a landfill as occurs under existing conditions. Biosolids are used by landfills for use as "alternative daily cover," which is the term for the material used each day to cover the exposed waste pile. Consequently, the BDPS units would not generate excess solid waste or conflict with solid waste statutes and regulations.

Demolition of the abandoned portion of the path would not generate solid waste; the material would be reused on the WWTP site as grindings. Any solid waste generated during construction would go to Keller Canyon Landfill, which has remaining capacity through 2050 (CalRecycle 2023). Therefore, the Proposed Project would not substantially affect the capacity of landfills.

Therefore, the Proposed Project would have **no impact** on the capacity of the local solid waste infrastructure, attainment of solids waste reduction goals, or compliance with solid waste statutes and regulations. *This conclusion is consistent with the 2016 Initial Study impact determination.*

3.20 WILDFIRE

	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-significant impact	No Impact
a)	Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑
b)	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☑	☐
c)	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☑
d)	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☑

3.20.1 Setting

In California wildfire protection jurisdictions are separated and overseen by local, state, or federal governments. The city of Brentwood is designated as a Local Responsibility Area, meaning that the local government is responsible for wildfire protection (CalFire 2023). There are no "Very High Fire Hazard Severity Zones" in or near the Proposed Project site (CalFire 2023).

3.20.2 Discussion

a) As described in Section 2.5, "Project Construction," the peak day construction equipment use or hauling trips for with the Proposed Project would be the same as that described in the 2016 Initial Study. Therefore, for the reasons provided in the 2016 Initial Study, the temporary construction-related trips for the Proposed Project would not substantially affect the capacity or congestion patterns on affected roads. Emergency access to the site for construction and WWTP workers would continue to be provided via Elkins Way during the entire project. Therefore, the Proposed Project would have **no impact** on an adopted emergency response plan or emergency evacuation plan. *This is a new impact determination relative to the 2016 Initial Study. The 2016 Initial Study did not address this question because it was not part of the State CEQA Guidelines Appendix G Environmental Checklist at the time of preparation.*

b) There would be little to no risk for wildfire during construction. There is a possibility for construction equipment that runs on fossil fuels to potentially generate sparks, and there is a

possibility that grass could be ignited during grading. As such, construction vehicles would be equipped with fire extinguishers to address any possibility of a small fire that could be ignited by construction activities. There would be little to no risk of wildfire during project operations. The WWTP site is comprised of buildings and paved areas, with little to no vegetation to fuel a fire. Therefore, the Proposed Project would have a **less-than-significant impact** on exacerbating wildfire risks and thereby, creating pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. *This is a new impact determination relative to the 2016 Initial Study. The 2016 Initial Study did not address this question because it was not part of the State CEQA Guidelines Appendix G Environmental Checklist at the time of preparation.*

c) The Proposed Project would utilize existing roads for WWTP access, existing water sources for operations and fire suppression, and existing utility services. Therefore, the Proposed Project would have a **no impact** on wildfire risk and the environment as a result of installation or maintenance of infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities). *This is a new impact determination relative to the 2016 Initial Study. The 2016 Initial Study did not address this question because it was not part of the State CEQA Guidelines Appendix G Environmental Checklist at the time of preparation.*

d) As discussed in Section 3.10, "Hydrology and Water Quality," the Proposed Project would not substantially increase in impervious area or runoff or change erosion rates compared to existing conditions. Furthermore, the Proposed Project is not located on a slope that would become unstable post-fire. Therefore, the Proposed Project would have **no impact** on risks to people or structures as a result of runoff, postfire slope instability, or drainage changes. *This is a new impact determination relative to the 2016 Initial Study. The 2016 Initial Study did not address this question because it was not part of the State CEQA Guidelines Appendix G Environmental Checklist at the time of preparation.*

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-significant impact	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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☑	☐	☐
b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☑	☐

	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation	Less-than-significant impact	No Impact
c)	Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☑

3.21.1 Discussion

a) With respect to terrestrial wildlife resources, as discussed in Section 3.5 ("Biological Resources"), implementation of the Proposed Project has the potential primarily to result in temporary construction-related disturbance to potential habitats in the project area, and several wildlife species, if present during the time of construction. However, feasible project-specific mitigation measures are identified to minimize and avoid the potential adverse effects. There would be permanent impacts to potential habitats where the BDPS units would be placed. The City would participate in the ECCCHCP, which is designed to protect core habitat areas and populations of special-status species in the region, and promote recovery of species and habitats.

The 2016 Initial Study addresses the primary long-term operations-related effects of the Proposed Project, including the seasonal change in WWTP effluent discharge to Marsh Creek. The Proposed Project modification to include the BDPS units at the proposed location adjacent to the WWTP would not affect the quality or quantity of effluent discharged to Marsh Creek. As described in the 2016 Initial Study, the changes in streamflow would not result in any substantial adverse effects to fish or other aquatic resources, or terrestrial wildlife in the Marsh Creek corridor.

Impacts to fish and wildlife species would be **less than significant with mitigation** identified in the 2016 Initial Study and herein for the Proposed Project modifications.

b) As documented in the 2016 Initial Study and this Supplemental Initial Study, the Proposed Project would either not affect or would result in minimal and localized effects with respect to most environmental resources. Implementation of the Proposed Project would result in temporary construction-related disturbances that may affect air quality, biological resources, cultural and tribal resources, water quality, traffic, and noise. Feasible mitigation measures have been identified that when implemented would avoid or minimize the potentially significant impacts that may occur to these resources. With implementation of the mitigation measures, the temporary construction-related effects would not cause or contribute to any adverse long-term cumulative effects to these resources.

With respect to potential long-term cumulative environmental effects, the Proposed Project and its operations-related increase in wastewater treatment and disposal of effluent and recycled water reuse could contribute to air quality and greenhouse gas emissions, terrestrial biological resources, aquatic biological resources and water quality in Marsh Creek, and transportation effects. The Proposed Project may contribute incrementally to cumulative impacts associated with past, present, and reasonably foreseeable effects to these resources.

The potential contribution of operations-related effects of the Proposed Project to cumulative impacts for these resources is discussed below.

Transportation: No information exists to suggest that the future traffic conditions in Brentwood would be significantly adverse. It is assumed that City and regional transportation planning and construction of transportation systems will be implemented to accommodate the increased community development and population growth. The Proposed Project would decrease the number of truck trips for hauling biosolids from 370 per year to 110 per year. Therefore, potential cumulative transportation impacts are not assessed further.

Air Quality and Greenhouse Gas Emissions: As noted above Section 3.3, "Air Quality," and Section 3.8, "Greenhouse Gas Emissions," and in the 2016 Initial Study, the potential adverse effects of GHGs and the primary concern of air quality pollutants occur over local, regional, and global areas as a result of the cumulative emissions of sources. No single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards, or measurably influence global greenhouse gases. Accordingly, the thresholds of significance for project-related emissions of regulated air pollutants and GHGs established by BAAQMD consider the regional emissions necessary for maintaining compliance with the air quality standards and long-term GHG reduction objectives. Because the estimated air pollutant and greenhouse gas emissions that would occur under the Proposed Project are well below the BAAQMD thresholds, the Proposed Project would not result in a cumulatively considerable contribution to any significant cumulative air quality or GHG impacts.

Biological Resources. The 2016 Initial Study concluded that the future cumulative biological resource conditions for terrestrial special-status species in the project area will improve relative to existing conditions given the ongoing implementation of the ECCCHCP and that the Proposed Project would not contribute considerably to any adverse cumulative terrestrial biological resource impacts. With the modification to the Proposed Project to add facilities adjacent to the WWTP to the site by constructing and operating the BDPS, as well as realign the connecting path, the City would contribute to the fair share implementation of the ECCCHCP for the potential project-related permanent habitat disturbances, and thus not contribute considerably to any adverse cumulative terrestrial biological resource impacts.

The 2016 Initial Study also concluded with respect to special-status fish resources (and other aquatic biological resources) in Marsh Creek that the future cumulative resource conditions would not be substantially different than the existing conditions and the Proposed Project would not contribute considerably to any potentially significant future cumulative aquatic biological resource impacts.

Water Quality. The 2016 Initial Study concluded that the existing dissolved oxygen and mercury conditions in Marsh Creek upstream of the WWTP is considered a significant cumulative water quality condition, but that the Proposed Project would not contribute considerably to the cumulative mercury and low dissolved oxygen effects. The Proposed Project modification to include the BDPS units at the proposed location adjacent to the WWTP would not affect the quality or quantity of effluent discharged to Marsh Creek. Therefore, the Proposed Project as modified also would not contribute considerably to cumulative mercury and low dissolved oxygen conditions in Marsh Creek.

Based on the above discussion, the Proposed Project would not result in impacts that are individually limited but contribute considerably to any significant future cumulative impact. *This conclusion is consistent with the 2016 Initial Study impact determination.*

c) As described in the 2016 Initial Study, the Proposed Project would support the long-term goals of the Conservation and Open Space element of the City's General Plan to conserve water resources and increase recycled water uses. Final project planning and engineering designs, and project implementation would be conducted in a manner to minimize the potential temporary construction-related disturbances, and mitigation measures would be implemented for such disturbances. Consequently, the Proposed Project's environmental effects would have **no impact** on adverse effects on human beings. *This conclusion is consistent with the 2016 Initial Study impact determination.*

4 LIST OF PREPARERS

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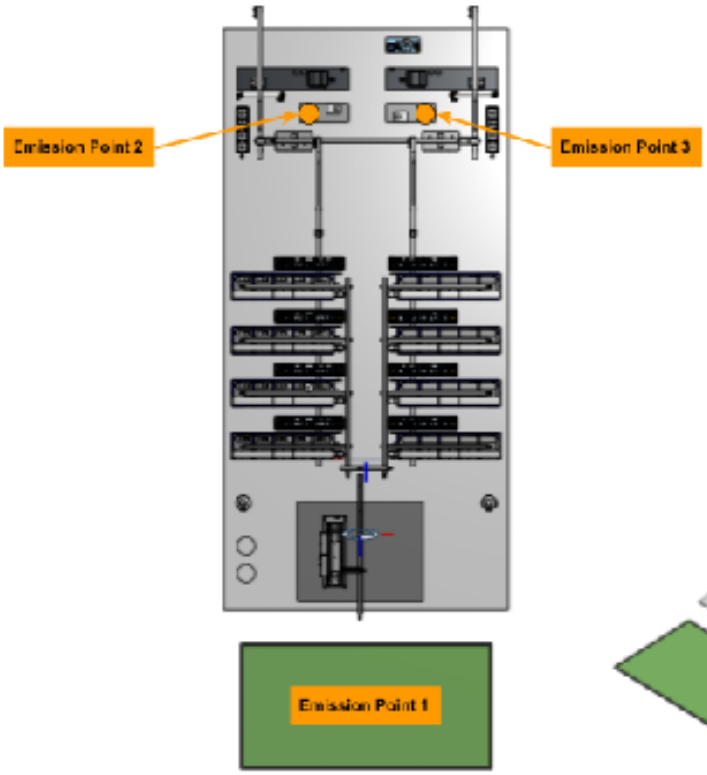
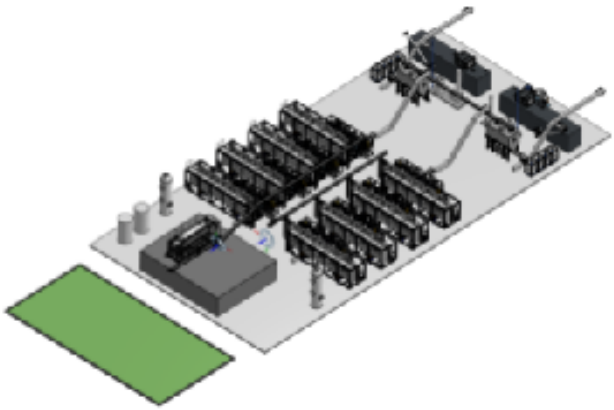
APPENDIX A

Biosolids Dryer and Pyrolysis System Emissions Data

Emission data for CEQA





BioDryers emissions from Biofilter (Emission point 1):

Max CFM: 22,000

Ammonia: 0.8 lb/h , 19.4 lbs/day, 7,081 lb/year
VOC: 0.11 lb/h, 2.64 lb/day, 960 lb/year
H2S: 0 lb/h, 0 lb/day
CO2: 50 ton/year (from biogenic sources)
PM2.5 + PM10 = NA
ROG = 0.32 lb/h, 7.68 lb/day, 2,803 lb/year

Pyrolysis 1 emissions from stack (Emission point 2):

Max CFM: 257

NOx: 0.198 lb/h , 4.75 lbs/day, 1,496 lb/year
SOx: 0.044 lb/h, 1.06 lb/day, 333 lb/year
CO: 0.088 lb/h, 2.11 lb/day, 667 lb/year
CO2: 187 lb/h, 700 ton/year (from biogenic sources)

PM2.5 + PM10 = 0.0095 lb/h, 0.228 lb/day, 76 lb/year
ROG = 0.006 lb/h, 0.144 lb/day, 48 lb/year

Pyrolysis 2 emissions from stack (Emission point 3):

Max CFM: 257

NOx: 0.198 lb/h , 4.75 lbs/day, 1,496 lb/year
SOx: 0.044 lb/h, 1.06 lb/day, 333 lb/year
CO: 0.088 lb/h, 2.11 lb/day, 667 lb/year
CO2: 187 lb/h, 700 ton/year (from biogenic sources)

PM2.5 + PM10 = 0.0095 lb/h, 0.228 lb/day, 76 lb/year
ROG = 0.006 lb/h, 0.144 lb/day, 48 lb/year

APPENDIX B

Biological Resources Data

Table B-1. Vegetation Communities and Wildlife Habitats.

California Native Plant Society Vegetation Community/Alliance	California Wildlife Habitat Relationship	Characteristic Species	Locations Affected by Proposed Project			
			WWTP Construction Sites	Lower Marsh Creek Downstream of Effluent Discharge	Tidally Influenced Portion of Lower Marsh Creek Downstream of Effluent Discharge	Biosolids Dryer and Pyrolysis System, and City Path Connector
Tree-Dominated Communities						
Hinds's walnut and related stands *(Juglans hindsii* and Hybrids Semi-Natural Woodland Stands)	Valley Foothill Riparian	Hind's walnut (*Juglans hindsii*), willow (*Salix* sp.), Fremont cottonwood (*Populus fremontii*), giant reed (*Arundo donax*), Himalayan blackberry (*Rubus armeniacus*)			X	
Herb-Dominated Communities						
Various Semi-Natural Herbaceous Alliances	Annual Grassland	Yellow starthistle (*Centaurea solstitialis*), wild oats (*Avena* sp.), bermuda grass (*Cynodon dactylon*), bindweed (*Convolvulus arvensis*), tarweed (*Holocarpha heermannii*),	X	X	X	X
Bulrush/Cattail Marsh (*Schoenoplectus* sp. /*Typha* sp. Alliances)	Fresh Emergent Wetland	Bulrush (*Schoenoplectus* sp.), cattail (*Typha* sp.), Himalayan blackberry, rush (*Juncus* sp.), cheeseweed (*Malva parviflora*), spearmint (*Menta spicata*)		X		
Bulrush Marsh (*Schoenoplectus* sp. Alliance)	Saline Emergent Wetland	Bulrush, cattail, willow, water hyacinth (*Eichhornia crassipes)*			X	
Non-Vegetated Areas						
Not applicable	Barren/Ruderal	*Not applicable*	X	X	X	
Not applicable	Urban	*Not applicable*	X	X	X	X
Aquatic Areas						
Not applicable	Riverine	*Not applicable*		X		
Not applicable	Estuarine	*Not applicable*			X	

Table B-2. Potentially Occurring Special-Status Plant and Wildlife Species.

Scientific and Common Name	Status (F/S/CRPR, HCP/NCCP)	Habitat	Potential for Occurrence in project area	Potential for Project to Affect
Plants				
Large-flowered fiddleneck *Amsinckia grandiflora*	FE/SE/1B, HCP/NCCP-no take	Grassy slopes below 1,000 feet in the San Joaquin Valley.	Potential for occurrence in annual grasslands within the project area.	**NA:** Not found during reconnaissance surveys conducted in appropriate period of blooming.
Slender silver moss *Anomobryum julaceum*	--/--/4	Broadleafed upland forest, lower montane coniferous forest, North Coast coniferous forest /damp rock and soil on outcrops, usually on roadcuts.	Unlikely to occur. Project is outside of species elevational range and no appropriate habitat is present.	**NA:** Unlikely to occur.
Mt. Diablo manzanita *Arctostaphylos auriculata*	--/--/1B, HCP/NCCP-covered	Chaparral (sandstone), cismontane woodland.	No suitable chaparral/scrub present. T	**NA:** Unlikely to occur.
Contra Costa manzanita *Arctostaphylos manzanita ssp. laevigata*	--/--/1B	Chaparral (rocky).	No suitable chaparral present.	**NA**: Unlikely to occur**.**
Alkali milkvetch *Astragalus tener* ssp. *tener*	--/--/1B	Alkaline flats and vernally moist meadows below 200 feet.	Potential for occurrence in areas with spring moisture within annual grassland habitats in the project area.	**NA:** Not found during reconnaissance surveys conducted in appropriate period of blooming.
Heartscale *Atriplex cordulata var. cordulata*	--/--/1B	Saline or alkaline soils in chenopod scrub, meadows, and seeps. Sandy soils in valley and foothill grassland.	Potential for occurrence within the grasslands or wetlands at the site.	**NA:** Not found during reconnaissance surveys conducted in appropriate period of blooming.
Crownscale *Atriplex coronata var. coronata*	--/--/4	Alkaline, often clay soils in chenopod scrub, valley and foothill grassland, and vernal pools.	Potential for occurrence within the grasslands at the site.	**NA:** Not found during reconnaissance surveys conducted in appropriate period of blooming.
Brittlescale *Atriplex depressa*	--/--/1B, HCP/NCCP-covered	Wet, alkaline grassland, chenopod scrub, alkali scalded areas, and/or vernal pools.	Potential for occurrence within the grasslands at the site.	**NA:** Not found during reconnaissance surveys conducted in appropriate period of blooming.
Lesser saltscale *Atriplex minuscula*	--/--/1B	Alkaline, sandy in chenopod scrub, playas, and valley and foothill grassland	Potential for occurrence within the grasslands at the site.	**NA:** Not found during reconnaissance surveys conducted in appropriate period of blooming.
Big tarplant *Blepharizonia plumosa*	--/--/1B, HCP/NCCP-covered	Dry slopes in grassland below 1,600 feet.	Potential for occurrence in annual grasslands within the project area.	**NA:** Not found during reconnaissance surveys

Scientific and Common Name	Status (F/S/CRPR, HCP/NCCP)	Habitat	Potential for Occurrence in project area	Potential for Project to Affect
Round-leaved filaree *California (Erodium) macrophylla*	--/--/1B, HCP/NCCP-covered	Clay soils in cismontane woodland and valley/foothill grassland <4,000 feet.	Potential for occurrence in annual grasslands within the project area.	**NA:** Not found during reconnaissance surveys conducted in appropriate period of blooming.
Mount Diablo fairy lantern *Calochortus pulchellus*	--/--/1B, HCP/NCCP-covered	Wooded slopes, generally northern aspect; 600–2,700 feet.	Unlikely to occur. Project is outside of species elevational range and no appropriate habitat is present.	**NA:** Unlikely to occur.
Chaparral harebell *Campanula exigua*	--/--/1B	Chaparral (rocky, usually serpentine).	Unlikely to occur. Project is outside of species elevational range and no appropriate habitat is present.	**NA:** Unlikely to occur.
Congdon's tarplant *Centromadia parryi subsp. congdonii*	--/--/1B	Grazed and un-grazed annual grassland. Alkaline or saline soils sometimes described as heavy white clay (saline clay soil).	Potential for occurrence in annual grasslands within the project area.	**NA**: Not found during reconnaissance surveys conducted in appropriate period of blooming.
Mt. Diablo bird's-beak *Cordylanthus nidularius*	--/--/1B	Chaparral (serpentine).	Unlikely to occur. Project is outside of species elevational range and no appropriate habitat is present.	**NA:** Unlikely to occur.
Hoover's cryptantha *Cryptantha hooveri*	--/--/1A	Inland dunes, sandy soils in valley and foothill grassland	Potential for occurrence in annual grasslands within the project area.	**NA**: Not found during reconnaissance surveys conducted in appropriate period of blooming.
Hospital Canyon larkspur *Delphinium californicum ssp. interius*	--/--/1B	Within and beside chaparral, grassy openings of cismontane woodland, sometimes mesic areas in above habitats.	Unlikely to occur. Project is outside of species elevational range and no appropriate habitat is present.	**NA:** Unlikely to occur.
Recurved larkspur *Delphinium recurvatum*	--/--/1B, HCP/NCCP-covered	Wet, alkaline areas, chenopod scrub	Potential for occurrence in annual grasslands within the project area.	**NA**: Not found during reconnaissance surveys conducted in appropriate period of blooming.
Norris' beard moss *Didymodon norrisii*	--/--/2B	Cismontane woodland, lower montane coniferous forest/intermittently mesic, rock.	Unlikely to occur. Project is outside of species elevational range and no appropriate habitat is present.	**NA:** Unlikely to occur.
Western leatherwood *Dirca occidentalis*	--/--/1B	Broadleaved upland forest, chaparral, closed-cone coniferous forest, cismontane woodland, north coast coniferous forest, riparian forest, and riparian woodland.	Unlikely to occur. No appropriate habitat is present.	**NA:** Unlikely to occur.
Mount Diablo buckwheat *Eriogonum truncatum*	--/--/1B, HCP/NCCP – no take	Sand; 600–1300 feet	Unlikely to occur. project area is outside of this species elevational range.	**NA:** Unlikely to occur.

Scientific and Common Name	Status (F/S/CRPR, HCP/NCCP)	Habitat	Potential for Occurrence in project area	Potential for Project to Affect
Diamond-petaled poppy *Eschscholzia rhombipetala*	--/--/1B	Open areas and grasslands below 1,000 feet.	Potential for occurrence in annual grasslands within the project area.	**NA:** Not found during reconnaissance surveys conducted in appropriate period of blooming.
Hogwallow starfish *Hesperevax caulescens*	--/--/4	Sometimes alkaline in valley and foothill grassland (mesic, clay) and vernal pools (shallow).	Potential for occurrence in annual grasslands within the project area.	**NA:** Not found during reconnaissance surveys conducted in appropriate period of blooming.
Brewer's western flax *Hesperolinon breweri*	--/--/1B, HCP/NCCP-covered	Serpentine soils in woodland, grassland, and chaparral habitats.	Potential for occurrence in annual grasslands within the project area.	**NA:** Not found during reconnaissance surveys conducted in appropriate period of blooming.
Woolly rose mallow *Hibiscus lasiocarpos var. occidentalis*	--/--/1B	Freshwater marshes and swamps, riprap on sides of levees	Unlikely to occur. No appropriate habitat is present.	**NA:** Unlikely to occur.
Contra Costa goldfields *Lasthenia conjugens*	FE/--/1B, HCP/NCCP-no take	Vernal pools and wet meadows in valley grasslands.	Potential for occurrence in annual grasslands within the project area.	**NA:** Not found during reconnaissance surveys conducted in appropriate period of blooming.
Showy madia *Madia radiata*	--/--/1B, HCP/NCCP-covered	Grassy or open slopes, generally clayey soils or shale.	Potential for occurrence in annual grasslands within the project area.	**NA:** Not found during reconnaissance surveys conducted in appropriate period of blooming.
Hall's bushmallow *Malacothamnus hallii*	--/--/1B	Chaparral, coastal scrub	Unlikely to occur. No appropriate habitat is present.	**NA:** Unlikely to occur.
Woodland woolythreads *Monolopia gracilens*	--/--/1B	Openings in broadleaf upland forest, chaparral, cismontane woodland, North Coast coniferous forest, and valley and foothill grassland/serpentine.	Unlikely to occur. Project is outside of species elevational range and no appropriate habitat is present.	**NA:** Unlikely to occur.
Lime Ridge navarretia *Navarretia gowenii*	--/--/1B	Chaparral, clay and serpentine soils.	Unlikely to occur. Project is outside of species elevational range and no appropriate habitat is present.	**NA:** Unlikely to occur.
Shining navarretia *Navarretia nigelliformis* subsp. *radians*	--/--/1B, HCP/NCCP-covered	Valley and foothill grassland.	Potential for occurrence in annual grasslands within the project area.	**NA:** Not found during reconnaissance surveys conducted in appropriate period of blooming.
Antioch Dunes evening primrose *Oenothera deltoides ssp. howellii*	FE/--/1B	Sandy bluffs, dunes below 100 meters in the Deltaic Great Central Valley (Antioch and Contra Costa Counties).	Unlikely to occur as no appropriate habitat is present.	**NA:** Unlikely to occur.

Scientific and Common Name	Status (F/S/CRPR, HCP/NCCP)	Habitat	Potential for Occurrence in project area	Potential for Project to Affect
Mt. Diablo phacelia *Phacelia phacelioides*	--/--/1B	Chaparral and cismontane woodland/ rocky; strong indicator of serpentine soils.	Unlikely to occur. Project is outside of species elevational range and no appropriate habitat is present.	**NA:** Unlikely to occur.
California alkali grass *Puccinellia simplex*	--/--/1B	Alkaline, vernally mesic; sinks, flats, and lake margins in chenopod scrub, meadows and seeps, valley and foothill grassland, and vernal pools.	Potential for occurrence in annual grasslands within the project area.	**NA:** Not found during reconnaissance surveys conducted in appropriate period of blooming.
Rock sanicle *Sanicula saxatilis*	--/--/1B	Rocky ridges or tallus, broadleaved upland forest, chaparral, valley and foothill grassland.	Unlikely to occur. Project is outside of species elevational range.	**NA:** Unlikely to occur.
Chaparral ragwort *Senecio aphanactis*	--/--/2B	Drying alkaline flats in cismontane woodland and coastal scrub.	Unlikely to occur as no appropriate habitat is present.	**NA:** Unlikely to occur.
Long-styled sand-spurrey *Spergularia macrotheca var. Longistyla*	--/--/1B	Alkaline in meadows and seeps and marshes and swamps.	Potential for occurrence in annual grasslands within the project area.	**NA:** Not found during reconnaissance surveys conducted in appropriate period of blooming.
Most beautiful jewel-flower *Streptanthus albidus ssp. Peramoenus*	--/--/1B	Chaparral, cismontane woodland, valley and foothill grassland, serpentine soils.	Unlikely to occur. Project is outside of species elevational range and no appropriate habitat is present.	**NA:** Unlikely to occur.
Mt. Diablo jewel-flower *Streptanthus hispidus*	--/--/1B	Chaparral, valley and foothill grassland/ rocky.	Unlikely to occur. Project is outside of species elevational range and no appropriate habitat is present.	**NA:** Unlikely to occur.
Coastal triquetrella *Triquetrella californica*	--/--/1B	Coastal bluff scrub, coastal scrub/soil.	Unlikely to occur as no appropriate habitat is present.	**NA:** Unlikely to occur.
Caper-fruited tropidocarpum *Tropidocarpum capparideum*	--/--/1B HCP/NCCP-no take	Alkaline clay soils in grassland and oak woodland (valley and foothill grassland).	Potential for occurrence in annual grasslands within the project area.	**NA:** Not found during reconnaissance surveys conducted in appropriate period of blooming.
Oval-leaved viburnum *Viburnum ellipticum*	--/--/2B	Chaparral, cismontane woodland, and lower montane coniferous forest.	Unlikely to occur. Project is outside of species elevational range and no appropriate habitat is present.	**NA:** Unlikely to occur.
Invertebrates				
Conservancy fairy shrimp *Branchinecta conservatio*	FE/--/--	Vernal pools.	Unlikely to occur. No appropriate habitat (vernal pools) is present in the project area.	**NA:** Unlikely to occur.

Scientific and Common Name	Status (F/S/CRPR, HCP/NCCP)	Habitat	Potential for Occurrence in project area	Potential for Project to Affect
Longhorn fairy shrimp *Branchinecta longiantenna*	FE/--/--, HCP/NCCP covered	Vernal pools.	Unlikely to occur. No appropriate habitat (vernal pools) is present in the project area.	**NA:** Unlikely to occur.
Vernal pool fairy shrimp *Branchinecta lynchi*	FT/--/--, HCP/NCCP-covered	Vernal pools.	Unlikely to occur. No appropriate habitat (vernal pools) is present in the project area.	**NA:** Unlikely to occur.
Midvalley fairy shrimp *Brachinecta mesovallensis*	--/--/--, HCP/NCCP-covered	Vernal pools and a variety of constructed features. Often ponding is of shallow duration but can occur in long-duration ponds.	Unlikely to occur. No appropriate habitat (vernal pools) is present in the project area.	**NA:** Unlikely to occur.
San Bruno elfin butterfly *Callophrys mossii bayensis*	FE/--/--	Coastal mountainous areas with grassy ground cover within fog belt. Associated with host plant *Sedum spathulifolium*.	Unlikely to occur. The project site is not located within the fog belt and is not known for supporting the host plant of this species.	**NA:** Unlikely to occur.
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT/--/--	Occurs only in the Central Valley of California, in association with blue elderberry (*Sambucus nigra* ssp. *Caerulea*). Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for "stressed" elderberries.	Unlikely to occur as there are no elderberry shrubs in the project area. The closest known occurrence is approximately 19 miles east of the project.	**NA:** Unlikely to occur.
Vernal pool tadpole shrimp *Lepidurus packardi*	FE/--/--, HCP/NCCP-covered	Vernal pools.	Unlikely to occur. No appropriate habitat (vernal pools) is present in the project area.	**NA:** Unlikely to occur.
Amphibians				
California tiger salamander *Ambystoma californiense*	FT/ST/--, HCP/NCCP-covered	Occurs primarily in annual grassland habitat but is also found in the grassy understory of valley-foothill hardwood habitats, and uncommonly along stream courses in valley-foothill riparian habitats below 3,200 feet. Require vernal pools or ponds for breeding. Can disperse up to one mile from their breeding ponds.	Potential for occurrence. According to the ECCCHCP, no modeled habitat is present in the project area (Jones and Stokes 2006). However, there are CNDDB occurrences in the project area vicinity and species could potentially be present in grassy areas where appropriate habitat is present.	**NLAA:** Construction activities would occur in areas that may provide foraging habitat for California tiger salamander; however, no breeding habitat is present onsite. Pre-construction surveys and conservation measures (if needed) would minimize potential adverse effects. There would be no operations effects to the species.

Scientific and Common Name	Status (F/S/CRPR, HCP/NCCP)	Habitat	Potential for Occurrence in project area	Potential for Project to Affect
Foothill yellow-legged frog *Rana boylii*	--/SE/--, HCP/NCCP-covered	Streams with rocky or cobbly substrate that flow at least to May.	Unlikely to occur as no appropriate habitat is present.	**NA:** Unlikely to occur.
California red-legged frog *Rana aurora draytonii*	FT/SSC/--, HCP/NCCP-covered	Breeds in aquatic areas with dense, shrubby, or emergent riparian vegetation and a permanent source of deep (greater than 2 1/3 feet deep) still or slow-moving water below 4,000 feet elevation. Upland dispersal within 1 mile of aquatic breeding habitat with no impassable dispersal barriers (suburban areas, suburban developments, wide or fast flowing rivers or streams, lakes greater than 50 acres, and heavily traveled roads without underpasses or culverts).	Unlikely to occur. No appropriate habitat is present.	**NA:** Unlikely to occur.
Reptiles				
Western pond turtle *Emys marmorata*	--/SSC/--, HCP/NCCP-covered	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation.	Unlikely to occur. No appropriate habitat is present.	**NA:** Unlikely to occur.
Silvery legless lizard *Anniella pulchra pulchra*	--/SSC/--, HCP/NCCP-covered	Sandy or loose loamy soils with sparse vegetation and high moisture content.	Potential for occurrence.	**NLAA:** Construction activities would occur in areas that may provide foraging habitat for Silvery legless lizard. Pre-construction surveys and conservation measures (if needed) would minimize potential adverse effects. There would be no operations effects to the species.
Alameda whipsnake *Masticophis lateralis euryxanthus*	FT/ST/--, HCP/NCCP covered	Typically found in chaparral, such as northern coastal sage scrub and coastal sage. Mating and egg-laying occur in grassland habitats adjacent to chaparral habitats in the spring.	Unlikely to occur. project area does not contain suitable habitat.	**NA:** Unlikely to occur.

Scientific and Common Name	Status (F/S/CRPR, HCP/NCCP)	Habitat	Potential for Occurrence in project area	Potential for Project to Affect
Coast horned lizard *Phrynosoma blainvillii*	--/SSC/--	Chaparral, oak savannah, and grassland habitat types with loose soils. Also in lowlands, along sandy washes with scattered low bushes.	Potential for occurrence in the project area	**NLAA:** Pre-construction surveys and conservation measures (if needed) would minimize potential adverse effects. There would be no operations effects to the species.
Giant garter snake *Thamnophis gigas*	FT/ST/--, HCP/NCCP-covered	Uses a wide variety of habitats including forests, mixed woodlands, grasslands, chaparral, and agricultural lands. Often occurs near aquatic habitat including ponds, marshes, and streams where it freely enters and retreats to when alarmed.	Potential for occurrence in the project area in and around lower Marsh Creek.	**NLAA** Pre-construction surveys and conservation measures (if needed) would minimize potential adverse effects. There would be no operations effects to the species.
Birds				
Tricolored blackbird (nesting colony) *Agelaius tricolor*	--/SSC/--, HCP/NCCP-covered (nesting colonies)	Highly colonial species, most numerous in the Central Valley & vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and a foraging area with insect prey within a few miles of the colony. Nests in emergent wetlands with dense vegetation. Forages on ground in grassland or cropland habitats.	Potential for foraging in the project area at the WWTP where appropriate habitat is present, and in the vicinity of lower Marsh Creek.	**NLAA:** Construction activities would occur in areas that may provide foraging habitat. Pre-construction surveys and conservation measures (if needed) would minimize potential adverse effects. There would be no operations effects to the species.
Golden eagle (nesting and wintering) *Aquila chrysaetos*	--/FP/,-- HCP/NCCP-covered	Grasslands and early successional stages of forest and shrub habitats for foraging at elevations up to 11,500 feet. Secluded cliffs with overhanging ledges or large trees in open areas with unobstructed view for nesting.	Potential for foraging in project area in annual grassland habitats.	**NLAA:** Construction activities would occur in areas that may provide foraging habitat. Pre-construction surveys and conservation measures (if needed) would minimize potential adverse effects. There would be no operations effects to the species.

Scientific and Common Name	Status (F/S/CRPR, HCP/NCCP)	Habitat	Potential for Occurrence in project area	Potential for Project to Affect
Western burrowing owl *Athene cunicularia*	--/SSC/--, HCP/NCCP-covered	Open, dry annual or perennial grasslands, deserts & scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Potential for foraging and nesting in the project area. Several CNDDB records in the direct vicinity of the WWTP and lower Marsh Creek.	**NLAA:** Construction activities would occur in areas that may provide foraging habitat. Pre-construction surveys and conservation measures (if needed) would minimize potential adverse effects. There would be no operations effects to the species.
Swainson's hawk *Buteo swainsoni*	--/ST/--, HCP/NCCP-covered	Open grasslands and agricultural fields. Nests in large trees such as valley oak, cottonwood, or eucalyptus.	Potential for foraging and nesting in the project area. Several CNDDB records in the direct vicinity of the WWTP and lower Marsh Creek.	**NLAA:** Construction activities would occur in areas that may provide foraging and nesting habitat. Pre-construction surveys and conservation measures (if needed) would minimize potential adverse effects. There would be no operations effects to the species.
White-tailed kite *Elanus leucurus*	--/FP/--, HCP/NCCP no take	Grassland and savannah for foraging. Large trees for roosting and nesting.	Project site provides suitable nesting and foraging habitat.	**NLAA:** Construction activities would occur in areas that may provide foraging and nesting habitat. Pre-construction surveys and conservation measures (if needed) would minimize potential adverse effects. There would be no operations effects to the species.
American peregrine falcon (nesting) *Falco peregrinus*	--/FP/--, HCP/NCCP-no take	Breeds in woodlands, forests, coastal habitats, and riparian areas near wetlands, lakes, rivers, or other water on high cliffs, banks, dunes, or mounds. Migrants occur along the coast and the western Sierra Nevada in spring and fall.	Potential forager or migrant in project area. Unlikely to nest in the project area as no appropriate habitat is present.	**NA:** Areas affected by project construction unlikely to provide foraging habitat. There would be no measurable operations effects to the species.
California clapper rail *Rallus longirostris obsoletus*	FE/SE&FP/--	Forages in saline emergent wetlands and along tidal creeks. Nests in saline emergent wetlands near tidal sloughs.	Unlikely to occur as no appropriate habitat is present.	**NA:** Unlikely to occur.
California least tern (nesting colony) *Sternula antillarum browni*	FE/SE&FP/--	Breeding areas include abandoned salt ponds and estuarine shores along the southern San Francisco Bay. Feeds primarily in shallow estuaries or lagoons.	Unlikely to occur as no appropriate habitat is present.	**NA:** Unlikely to occur.

Scientific and Common Name	Status (F/S/CRPR, HCP/NCCP)	Habitat	Potential for Occurrence in project area	Potential for Project to Affect
Grasshopper sparrow *Ammodramus savannarum*	--/SSC/--	Grasslands with coyote brush and other shrubs.	Suitable habitat present.	**NLAA:** Construction activities would occur in areas that may provide foraging and nesting habitat. Pre-construction surveys and conservation measures (if needed) would minimize potential adverse effects. There would be no operations effects to the species.
Mammals				
Pallid bat *Antrozous pallidus*	--/SSC/--	Usually, maternity roosts occur in enclosed areas of buildings, caves, and mines. Forages in a wide variety of open habitats.	Project vicinity may provide suitable roosting habitat for this species within the buildings and large trees. Suitable foraging habitat present.	**NLAA**: Construction activities would occur in areas that may provide foraging and roosting habitat. Pre-construction surveys and conservation measures (if needed) would minimize potential adverse effects. There would be no operations effects to the species.
Ringtail *Brassariscus astutus*	--/FP/-- HCP/NCCP-no take	Mixture of forest and scrub in close association with rocky or riparian areas. Nests in rocky areas and hollow trees and logs.	Project site supports suitable foraging areas.	**NLAA**: Construction activities would occur in areas that may provide foraging habitat. Pre-construction surveys and conservation measures (if needed) would minimize potential adverse effects. There would be no operations effects to the species.
Townsend's big-eared bat *Corynorhinus townsendii*	--/FP/--, HCP/NCCP-covered	Usually, maternity roosts occur in enclosed areas of buildings, caves, and mines. Forages along habitat edges, often gleaning insects from trees or shrubs.	Buildings in the project vicinity may provide suitable roosting habitat. Suitable foraging habitat present.	**NLAA**: Construction activities would occur in areas that may provide foraging and roosting habitat. Pre-construction surveys and conservation measures (if needed) would minimize potential adverse effects. There would be no operations effects to the species.

Scientific and Common Name	Status (F/S/CRPR, HCP/NCCP)	Habitat	Potential for Occurrence in project area	Potential for Project to Affect
American badger *Taxidea taxus*	--/SSC/--	Open grassland areas with plentiful prey such as pocket gophers and ground squirrels. Suitable denning, foraging, and movement habitat present.	Suitable habitat present. No dens were observed during reconnaissance survey.	**NLAA**: Construction activities would occur in areas that may provide foraging and den habitat. Pre-construction surveys and conservation measures (if needed) would minimize potential adverse effects. There would be no operations effects to the species.
San Joaquin kit fox *Vulpes macrotus mutica*	FE/ST/--, HCP/NCCP-covered	Grasslands and shrubland areas in the San Joaquin Valley with friable soils for building underground dens. Denning begins around September, mating occurs from December to March, and pups are born February through April.	Unlikely to occur. project area does not contain suitable habitat and is not within the modeled habitat distribution for the species (Jones and Stokes 2006).	**NA:** Unlikely to occur.

Status

-- = not applicable

CRPR = California Rare Plant Ranking
1A = California Rare Plant Rank 1A: Plants presumed extirpated in California and either rare or extinct elsewhere.
1B = California Rare Plant Rank 1B: Plants are threatened or endangered in California and elsewhere.
2B = California Rare Plant Rank 2B: Plants are rare, threatened or endangered in California but more common elsewhere.
4 = Plants of Limited Distribution - A Watch List.

F = Federal
FE = Federal endangered
FP = California fully protected
FT = Federal threatened
HCP/NCCP-covered = species is covered by the HCP/NCCP
HCP/NCCP-no take = no take species under the HCP/NCCP
NA = no effect
NLAA = not likely to adversely affect
S = State of California
SSC = California state species of special concern
SE = California state endangered
ST = California state threatened