RESOLUTION NO. 86-19

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RICHMOND, CALIFORNIA, ADOPTING AN ADDENDUM TO AN INTIAL STUDY/ MITIGATED DECLARATION DOCUMENT AND APPROVING THE RICHMOND WASTEWATER TREATMENT PLANT COGENERATION FACILITY PROJECT

WHEREAS, the City of Richmond, (the "City"), is proposing to design and install a Cogeneration unit at Richmond's Wastewater Treatment Plant (WWTP) as identified in the WWTP Facility Plan and Sewer Collection System Master Plan (CSMP), at the plant located at 601 Canal Boulevard in the City of Richmond, Contra Costa County, California;

WHEREAS, the proposed project would result in the demolition of existing unused buildings at the WWTP and the construction of a new cogeneration facility, rehabilitation of the digester gas flares, implementation of digester gas mixing and digester sludge withdrawal improvements, and a digester cover replacement; and

WHEREAS, the project would require a Demolition Permit from the City and an Authority to Construct Permit from the Bay Area Air Quality Management District Map; and

WHEREAS, on July 24, 2019, LSA Associates, an environmental consultant prepared an addendum to the CEQA Initial Study/Mitigated Negative Declaration for the Wastewater Treatment Plant and Collection System Improvements Project. The City previously certified a Mitigated Negative Declaration (MND) for the project in December 2016, including adopting a Mitigation Monitoring and Reporting Program. The proposed project is a part of the project evaluated in the MND. The project analyzed in the MND assumed demolition of existing unused buildings at the WWTP and construction of a new cogeneration facility with the other improvements. The proposed building demolitions are consistent with the analysis performed in the original MND. Therefore, the Mitigation Monitoring and Reporting Program remain applicable and are incorporated into the proposed development (see Exhibit A).

WHEREAS, on September 17, 2019, the City Council held a duly noticed public meeting to consider adopting an Addendum to the MND and considered written and oral information provided at the meeting.

NOW THEREFORE, the City Council does hereby resolve as follows:

SECTION 1. Pursuant to Section 15164 of the California Environmental Quality Act ("CEQA") Guidelines, the Project is within the scope of the previously adopted Initial Study/MND for the Wastewater Treatment Plant and Cogeneration Facility. An Addendum to the MND has been prepared pursuant to Section 15162 of the CEQA Guidelines, and the Addendum concludes that analysis in the 2016 MND remains current and valid and does not change as a result of the project changes. Based on information and analysis contained in the Addendum, and pursuant to Section 15162 of the State CEQA Guidelines, the City Council finds as follows:

1. There are no substantial changes to the project that will require major revisions to the MND due to new, significant environmental effects or a substantial increase in the severity of impacts identified in the MND.

2. Substantial changes have not occurred in the circumstances under which the project is being undertaken that require major revisions of the MND to disclose new, significant environmental effects or a substantial increase in the severity of impacts identified in the MND.

3. There is no new information of substantial importance not known at the time the MND was certified that shows any of the following:

    A) The project will have any new significant effects not discussed in the MND;

B) Significant effects previously examined will be substantially more severe than shown in the previous MND;

C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous MND would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

NOW, THEREFORE BE IT RESOLVED, based on the above findings, the City Council does hereby adopt the attached CEQA Addendum, as set forth in Exhibit A.

****

I certify that the foregoing resolution was passed and adopted by the Council of the City of Richmond at a regular meeting thereof held September 17, 2019, by the following vote:

AYES:	Councilmembers Bates, Johnson, Martinez, Myrick, Willis, Vice Mayor Choi, and Mayor Butt.
NOES:	None.
ABSTENTIONS:	None.
ABSENT:	None.

PAMELA CHRISTIAN
CLERK OF THE CITY OF RICHMOND
(SEAL)

Approved:

TOM BUTT
Mayor

Approved as to form:

BRUCE GOODMILLER
City Attorney

State of California }
County of Contra Costa : ss.
City of Richmond }

I certify that the foregoing is a true copy of **Resolution No. 86-19**, finally passed and adopted by the City Council of the City of Richmond at a regular meeting held on September 17, 2019.

Pamela Christian, Clerk of the City of Richmond

EXHIBIT A

CARLSBAD
FRESNO
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

MEMORANDUM

DATE: June 27, 2019

TO: Katy Rogers, P.E., Project Manager/Associate Vice President, Carollo Engineers
Chelsea Ransom, PE, ENV SP, Lead Engineer, Carollo Engineers

FROM: Theresa Wallace, AICP, Principal
Shanna Guiler, AICP, Associate/Environmental Planner

SUBJECT: California Environmental Quality Act Addendum for the
Richmond Wastewater Treatment Plant Cogeneration Facility Project
Richmond, California

This document, prepared pursuant to the California Environmental Quality Act (CEQA) and the regulations and policies of the City of Richmond, provides information and analysis concerning the Cogeneration Facility project (proposed project). This document is an Addendum to the City of Richmond Wastewater Treatment Plant and Collection System Improvements Project Initial Study/Mitigated Negative Declaration[1] (2016 IS/MND), which was adopted by the City of Richmond in December 2016. This Addendum to the 2016 IS/MND evaluates whether minor changes associated with the proposed project would result in new or substantially more adverse significant effects or require new mitigation measures not identified in the 2016 IS/MND. See Attachment A for a full description of the proposed project. The City of Richmond is the Lead Agency under CEQA. In accordance with CEQA Section 21093(b) and CEQA Guidelines Section 15152(a), this Addendum tiers off the 2016 IS/MND, adopted in December 2016, which is hereby incorporated by reference.

INTRODUCTION

The Wastewater Treatment Plant (WWTP) project site is located at 601 Canal Boulevard in the City of Richmond, Contra Costa County, California. The WWTP is located in Point Richmond, bordered to the east by Canal Boulevard, the west and south by Miller/Knox Regional Park, and the north by a residential neighborhood.

The proposed project would result in the demolition of existing unused buildings at the WWTP and the construction of a new cogeneration facility, rehabilitation of the digester gas flares, implementation of digester gas mixing and digester sludge withdrawal improvements, and digester cover replacement. The project would require a Demolition Permit from the City and an Authority to Construct permit from the Bay Area Air Quality Management District.

[1] LSA Associates, Inc. 2016. *CEQA Initial Study/Mitigated Negative Declaration City of Richmond Wastewater Treatment Plant and Collection System Improvements Project.* December.

This Addendum is prepared pursuant to CEQA Guidelines Section 15164 which states: "The lead agency or a responsible agency shall prepare an addendum to a previously certified EIR [or adopted IS/MND] if some changes or additions are necessary, but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR [or IS/MND] have occurred." Section 15162 specifies that "no subsequent EIR [or IS/MND] shall be prepared for that project unless the lead agency determines … one or more of the following:"

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR [or IS/MND] due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR [or IS/MND] due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR [or IS/MND] was certified as complete was adopted, shows any of the following:

   (A) The project will have one or more significant effects not discussed in the previous EIR [or IS/MND];

   (B) Significant effects previously examined will be substantially more severe than shown in the previous EIR [or IS/MND];

   (C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

   (D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR [or IS/MND] would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Pursuant to CEQA Guidelines Section 15164(e), the purpose of this Addendum is to describe and evaluate the proposed project (construction of a Cogeneration Facility in-lieu of the Biosolids Post-Processing Facility), assess the proposed modifications to the project evaluated in the 2016 IS/MND, and identify the reasons for the City's conclusion that changes to the proposed project and associated environmental effects do not meet the conditions described in CEQA Guidelines Section 15162 calling for preparation of a subsequent or supplemental IS/MND.

Attachment A to this Addendum provides a complete description of the proposed project, its location, existing site characteristics, proposed development, and required approvals and entitlements.

Attachment B to this Addendum provides the Environmental Checklist prepared for the project. This checklist provides information to: (1) compare the environmental impacts of the proposed project with impacts expected to result from implementation of the critical improvements identified in the Collection System Master Plan and the WWTP Facility Plan and evaluated in the 2016 IS/MND; (2) demonstrate that the proposed project would not result in new or more severe significant environmental impacts; (3) provide new or revised mitigation measures not identified in the 2016 IS/MND, and (4) conclude that no substantial changes with respect to the circumstances under which the project would be undertaken since the 2016 IS/MND was adopted resulted in new or more severe significant environmental effects.

COMPARISON TO THE CONDITIONS LISTED IN CEQA GUIDELINES SECTIONS 15162 AND 15163

The following discussion summarizes the reasons that a subsequent or supplemental IS/MND, pursuant to CEQA Guidelines Sections 15162 and 15163, is not required and an Addendum to the 2016 IS/MND is the appropriate CEQA document.

Substantial Changes

Per the analysis included in Attachment B, Environmental Checklist, the proposed minor modifications to the project evaluated in the 2016 IS/MND would not result in new significant impacts beyond those identified in the 2016 IS/MND, would not substantially increase the severity of impacts identified in the 2016 IS/MND, and would not require major revisions to the 2016 IS/MND. Therefore, the proposed changes to the project would be minor modifications, not substantial changes, and an Addendum is the appropriate document to address these minor modifications rather than a subsequent or supplemental IS/MND.

Substantial Changes in Circumstances

As described in the Environmental Checklist for each topic, environmental conditions in and around the project site have not changed such that implementation of the proposed minor modifications to the 2016 IS/MND would result in new significant environmental effects or a substantial increase in the severity of environmental effects identified in the 2016 IS/MND, and thus would not require major revisions to the 2016 IS/MND.

New Information

No new information of substantial importance, which was not known or could not have been known when the 2016 IS/MND was certified, has been identified which shows that the proposed minor modifications to the 2016 IS/MND associated with the proposed project would be expected to result in: (1) new significant environmental effects not identified in the 2016 IS/MND; (2) substantially more severe environmental effects than shown in the 2016 IS/MND; (3) mitigation measures or alternatives previously determined to be infeasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the City declines to adopt the mitigation measure or alternative; or (4) mitigation measures or alternatives which are considerably different from those analyzed in the 2016 IS/MND would substantially reduce one or more significant effects on the environment, but the City declines to adopt the mitigation measure or alternative. In addition,

the proposed minor modifications would require no new mitigation measures, as described throughout the Environmental Checklist, because no new or substantially more severe impacts are expected beyond those identified in the 2016 IS/MND.

CONCLUSION

The proposed minor modifications to the 2016 IS/MND described in this Addendum would not require major revisions to the 2016 IS/MND due to new or substantially increased significant environmental effects. The analysis contained in the Environmental Checklist confirms that the modified project is within the scope of the 2016 IS/MND and will have no new or more severe significant effects and no new mitigation measures are required. Therefore, no subsequent or supplemental IS/MND or further CEQA review is required prior to approval of the proposed project, as described in this Addendum.

Attachments: A: Project Description
B: Environmental Checklist Pursuant to CEQA Guidelines Section 15168

ATTACHMENT A

PROJECT DESCRIPTION

The following describes the proposed Cogeneration Project at the City of Richmond Wastewater Treatment Plant (WWTP). The project would include construction of a new cogeneration facility at the WWTP, rehabilitation of the existing digester gas flares, and upgrades to the digester mixing/sludge withdrawal system. In addition to the description of the proposed project itself, this section includes a summary description of the project's location and existing site characteristics. This project description is part of the preparation of an Addendum to the City of Richmond Wastewater Treatment Plant and Collection System Improvements Project Initial Study/Mitigated Negative Declaration[1] (2016 IS/MND), which was adopted by the City of Richmond in December 2016. The City is the CEQA lead agency for the proposed project.

PROJECT SITE

The following section describes the location and site characteristics for the proposed project area and provides a brief overview of the existing land uses within and in the vicinity of the site.

Location and Surrounding Land Uses

The Wastewater Treatment Plant (WWTP) project site is located at 601 Canal Boulevard in the City of Richmond, Contra Costa County, California (Figures 1 and 2). The WWTP is located in Point Richmond, bordered to the east by Canal Boulevard, the west and south by Miller/Knox Regional Park, and the north by a residential neighborhood.

The General Plan land use designation for the WWTP is Public, Cultural and Institutional. The zoning designation for the WWTP is PC (Public and Civic Uses). No changes in General Plan or Zoning Code designations would be required for the proposed project.

Site Characteristics and Current Site Conditions

The WWTP was constructed in 1958 to provide influent pumping, grit removal, comminution,[2] primary treatment, disinfection, and discharge to San Francisco Bay. The plant has subsequently been upgraded several times to provide secondary activated sludge treatment, capacity expansion, conversion to sodium hypochlorite disinfection and sodium bisulfite dechlorination, and wet weather blending. Existing facilities at the WWTP include the wet weather facilities (pump station and storage tank), Influent Pump Station (IPS), grit removal, sedimentation tanks, aeration basins, secondary clarifiers, chlorine contact tanks, dechlorination facilities, sludge heaters, anaerobic

1 LSA Associates, Inc. 2016. C*EQA Initial Study/Mitigated Negative Declaration City of Richmond Wastewater Treatment Plant and Collection System Improvements Project.* December.

2 The process in which solid materials are reduced in size, by crushing, grinding, and other processes.

digesters, dissolved air flotation thickeners (DAFTs), administrative building, utility building and underground pipelines.

As described above, the majority of the project site is developed with uses associated with the WWTP; vegetation on the site consists of ruderal plant species and ornamental landscaping including non-native trees and shrubs. Areas with a relatively high cover of native vegetation are located adjacent to the project site, but are not within the proposed construction footprint.

Wildlife species that could occur on or in the vicinity of the site include various bird species (e.g., Anna's hummingbird [Calypte anna], northern mockingbird [*Mimus polyglottos*], California gull [*Larus californicus*], red-tailed hawk [*Buteo jamaicensis*], barn swallow [*Hirundo rustica*]), California ground squirrel (*Otospermophilus beecheyi*), California meadow vole (*Microtus californicus*), and black-tailed deer (*Odocoileus hemionus*). All of these species are generalists that are adapted to disturbed and/or human-modified landscapes. Additionally, a large stick nest was observed during a reconnaissance-level survey in a eucalyptus (*Eucalyptus* sp.) tree approximately 500 feet west of the wet weather storage tank. The site also provides habitat for other urban-adapted wildlife species such as arboreal salamander (*Aneides lugubris*), Sierran treefrog (*Pseudacris sierra*), northern raccoon (*Procyon lotor*), and striped skunk (*Mephitis mephitis*).

Potentially jurisdictional features with associated riparian habitat are present along the western perimeter of the WWTP. Vegetation observed along these ditches/wetlands include sand spurry (*Spergularia* sp.), slender rush (*Juncus tenuis*), velvet grass (*Holcus lanatus*), willow (*Salix* sp.), pampas grass (*Cortaderia selloana*), and various non-native grass species. No other sensitive natural communities or jurisdictional wetlands occur on or adjacent to the project site.

Wastewater Treatment Plant Master Plan and Facility Plan

The WWTP is operated under contract by Veolia Water North America (Veolia). The WWTP provides domestic, commercial, and industrial wastewater treatment and effluent disposal for the City of Richmond (City). Wastewater treatment processes at the WWTP include screening, raw wastewater pumping, grit removal, primary clarification, secondary treatment via activated sludge, disinfection, dechlorination, dissolved air flotation sludge thickening prior to digestion, and anaerobic sludge digestion. The treated effluent from the WWTP is combined with effluent from the WCWD WWTP, dechlorinated, and discharged through a deep water outfall into San Francisco Bay. Digested sludge from the WWTP is pumped to sludge lagoons and drying beds owned and operated by the WCWD.

In 2008, Carollo Engineers, under contract with Veolia Water, prepared a Wastewater Treatment Plant Master Plan (Master Plan) for the RSSD. The WWTP Master Plan was completed in 2010. Veolia hired Carollo Engineers in 2015 to update the 2010 Master Plan with a WWTP Facility Plan (Facility Plan). The primary purpose of the Facility Plan was to provide updated recommendations for the critical projects identified in the 2010 Master Plan as well as other critical treatment plant needs that have been identified since the 2010 Master Plan. The Facility Plan identified a series of critical improvements to be implemented over an approximately 10-year time horizon.

In 2016, an IS/MND was prepared to analyze the potential environmental impacts of implementing the critical improvement projects identified in the Facility Plan. The project analyzed by the 2016 IS/MND included the following components located at the facility:

- **Thickening Facility.** A new thickening facility would be constructed to replace the existing dissolved air flotation tank (DAFT) capacity.

- **Dewatering Facility.** A new dewatering facility would be constructed to replace the current practice of pumping digested biosolids to WCWD for dewatering and drying in solar drying beds.

- **Biosolids Post-Processing Facility**. A biosolids post-processing facility would be constructed to beneficially use digester gas generated on site to power a mechanical dryer that would dry digested biosolids prior to their disposal or use offsite.

- **Digester Gas Facilities Repair.** Existing digester gas piping and components of the flare that are severely corroded would be replaced with in-kind materials.

- **3-Water System Improvements.** The plant utility water (3-water) system would be replaced and upgraded to meet flow and pressure requirements.

- **Sodium Bisulfite System Replacement.** This project component would include replacing three existing sodium bisulfite tanks, the existing sodium bisulfite pumps, replacement of all piping above and below grade, an emergency standby sodium bisulfite tote located at the confluence structure, and repair of the concrete containment structure.

- **Supervisory Control and Data Acquisition (SCADA) Upgrade.** This project component would include replacing the plant communication, monitoring, control, and data acquisition systems in order to increase the condition and reliability of the plant SCADA system.

- **WWTP Lighting and Paving Improvements.** Aging street lights would be replaced and new lights added to provide full night time light coverage of the facility to improve plant safety. Plant roads would be repaved.

- **Site Protection from Rock Slides.** A concrete containment wall and netting would be constructed on the western boundary of the plant at the base of the surrounding hill to protect the plant facilities from rockslides or falling boulders and to improve plant safety.

- **Low-Lift Effluent Pump Station.** This improvement includes a low-lift effluent pump station that would be operated intermittently, as needed during high-tide conditions to discharge the effluent through the outfall and maintain a suitable water surface elevation within the WWTP facilities.

The 2016 IS/MND also evaluated the potential environmental impacts of implementing critical improvements to the sanitary sewer collection system identified in the Collection System Master Plan. These projects would rehabilitate and/or replace aging sewer pipelines that have known National Association of Sewer Service Companies (NASSCO) Pipeline Assessment Certification

Program (PACP) structural Grade 5 and other critical defects. No modifications are proposed to the sewer collection system improvements identified and evaluated in the 2016 IS/MND.

PROPOSED PROJECT

The City of Richmond WWTP Cogeneration Project (proposed project) would consist of the following components, which are described in greater detail below. The facilities would be located within the WWTP boundary. The potential location for these facilities is shown in Figure 3.

- Cogeneration Facility (and associated gas conditioning facilities)
- Digester Gas Flares
- Digester Gas Mixing and Sludge Withdrawal

The 2016 IS/MND evaluated the various system improvements (described above) that would be implemented at the WWTP to address aging and unreliable infrastructure, comply with current and future discharge regulations, and upgrade or replace non-functioning or obsolete treatment processes with efficient, adaptable, and reliable systems.

Since adoption of the 2016 IS/MND, the City, in coordination with Veolia, has decided to implement a Cogeneration Facility in order to beneficially use the digester gas generated at the WWTP. The proposed Cogeneration Facility would be constructed in-lieu of the Biosolids Post-Processing Facility, which was evaluated in the 2016 IS/MND. Rather than use the digester gas to dry the digested biosolids on-site, the Cogeneration Facility would use the digester gas to generate electrical power for use at the WWTP. As a result, dewatered biosolids produced by the future Dewatering Facility would not be dried on-site prior to off-site disposal.

In addition, the 2016 IS/MND evaluated the potential environmental impacts associated with replacing the existing digester gas piping and components of the flare with in-kind materials. Under the currently proposed project, the existing flares would be rehabilitated and upgraded as needed to ensure compliance with Bay Area Air Quality Management District (BAAQMD)requirements, and minor improvements to the digester mixing and digester covers would be implemented to optimize digester mixing and digester gas production.

Cogeneration Facility

The Cogeneration Facility would be constructed to beneficially use digester gas generated on site, to produce electrical power for use at the WWTP. The Cogeneration Facility would be designed to operate continuously except for maintenance and service periods. Natural gas would be used in the cogeneration engine during digester gas shortfalls. The Cogeneration Facility would be configured to be built in phases in order to capitalize on the currently available digester gas, as well as provide flexibility to capitalize on increased digester gas production in the future, should that occur. Currently, the WWTP generates digester gas, which is all flared. The Cogeneration Facility would allow the WWTP to use the digester gas rather than flaring it. In the future, the City may implement a Fat-Oil-Grease (FOG) receiving program, which would increase the amount of digester gas produced. Project improvements would include cogeneration engines as well as gas conditioning

equipment, above and below-grade piping, electrical and controls equipment, and tie-ins to existing piping and utilities necessary to support the Cogeneration Facility. Pipeline connections would be located mostly below grade and would require trenching (approximately 6 to 10 feet deep) for installation.

The Cogeneration Facility would include installation of cogeneration units, installed in phases. In the first phase, the cogeneration units would be sized in order to beneficially use currently available digester gas. As part of a future phase, additional units would be installed and sized to beneficially use additional digester gas produced from receiving and co-digesting FOG. The engines would include emissions control equipment as needed to comply with the BAAQMD requirements.

The gas treatment system would remove hydrogen sulfide (H_2S) and volatile organic compounds (VOCs) from the digester gas, in order to enhance the reliability of the cogeneration units. The cleaned biogas would then be piped to the cogeneration engine. Gas treatment equipment would include a hydrogen sulfide removal system, a gas compression and moisture removal system, siloxane removal, and a glycol chiller.

All equipment would be installed on a concrete pad. The cogeneration engines would be skid-mounted and enclosed. The equipment footprint would be approximately 9,600 square feet. A majority of the equipment would be approximately 15 to 20 feet tall, with some equipment elements extending to a height of approximately 50 feet. The cogeneration units and associated equipment would generate noise levels between 50 to 100 decibels (dB), and would be designed to not exceed 85 dBa at the fenceline.

Digester Gas Flares

The existing flares, which are currently used to flare all digester gas generated onsite, were last updated over 25 years ago. The flares would be rehabilitated and upgraded as needed to ensure compliance with BAAQMD requirements. When the Cogeneration Facility is implemented, the flares would only be used to flare excess digester gas not used by the Cogeneration Facility. The Cogeneration Facility would be designed and operated to use as much digester gas as possible.

Digester Mixing

As part of the Cogeneration Facility, digester gas mixing and digester sludge withdrawal improvements, and digester cover replacement may be implemented.

Digester gas mixing improvements may be implemented in order to improve volatile solids (VS) reduction within the digesters and increase digester gas production. Improvements would include upgrading the existing large capacity digester mixing pumps with variable frequency drives (VFDs).

Sludge withdrawal piping improvements may be made to enable surface wasting from the digester to control proliferation of filamentous organisms and reduce foaming. Improvements would include additional piping and valves in the vicinity of the existing digesters, as well as electrical and controls equipment necessary to support the new system.

The existing digester gas covers are nearing the end of their useful life and may be replaced with a similar type of cover.

Construction

Construction would occur on City-owned land and within the boundaries of the WWTP. Project components would require construction of new facilities or structures. All structures would be located either in the same location as other structures planned for demolition or in areas that are already paved and used for parking or storage. The types of equipment that would be used for construction of these project components would include but would not be limited to the following: asphalt pavers, compactors, water trucks, brooms and sweeping equipment, electric generators, air hammers, backhoes, loaders, excavators, cranes, sprayers and rollers, concrete mixers, concrete pumps and vibrators, graders, trucks and trailers, and welding and cutting equipment.

The WWTP would continuously operate throughout the entire duration of construction. The WWTP would continue receiving, treating, and disposing wastewater from the City of Richmond without interruption for the entire duration of the project.

Construction of the proposed project would occur between 2019 and 2028 and would require approximately 18 months to complete. For all facilities, construction would require demolition of existing facilities and removal of associated debris, excavation, site preparation, grading, forming and pouring of concrete slabs and walls, and equipment and electrical installation. Following construction of the new facilities, clean, imported fill would be used to backfill around the subgrade portions of trenches and structures. Final grade treatment would be asphalt pavement. With the implementation of the Cogeneration Facility, project construction would require approximately 12,000 cubic yards of soil and 7,000 cubic yards of demolition debris to be excavated or removed and hauled approximately 15 miles offsite to a waste processing facility or to a recycling yard.

Prior to construction, temporary contractor staging areas would be identified within the WWTP site. All staging areas would be located within the fenced boundaries of the WWTP.

The Cogeneration Facility is anticipated to be located in an area that is currently paved (the area currently occupied by unused solids facilities). If the Cogeneration Facility is located elsewhere on the site (in an unpaved area), the total amount of paved area at the WWTP would increase by approximately 3,200 square feet or approximately 0.075 acres, bring the total increase in impervious surfaces for the WWTP project to 8,200 square feet or approximately 0.185 acres.

Avoidance and Minimization Measures

The City has incorporated the following avoidance measures into the project; these measures would be implemented as part of the project:

Nesting Bird Surveys. Implementation of proposed improvements would be scheduled outside the bird nesting season (i.e., work would be scheduled to occur between September 1 and February 14), if feasible. If this schedule is not possible, the City would hire a qualified biologist to conduct preconstruction surveys for nesting birds no more than seven days prior to construction. If the biologist finds any active songbird nest within 50 feet or active raptor nests within 200 feet of the

work area, he or she would delineate a buffer zone where no construction would occur until they have determined that all young have fledged from the nest or the nest has failed or the burrow is no longer occupied. The size of the buffer would be determined by the biologist and would be based on the nesting species and sensitivity to disturbance, typically 200 feet for urban areas.

Archaeological Deposits. If deposits of prehistoric or historical archaeological materials are encountered during project activities, all work within 25 feet of the discovery would be redirected and a qualified archaeologist contacted to assess the situation, in consultation with tribal stakeholders (as appropriate), and to make and implement feasible recommendations for the assessment and treatment of the discovery. Project personnel would not collect or move any archaeological materials.

Archaeological materials can include flaked-stone tools (e.g., projectile points, knives, and choppers) or obsidian, chert, basalt, or quartzite toolmaking debris; bone tools; culturally darkened soil (i.e., midden soil often containing heat-affected rock, ash and charcoal, shellfish remains, bones, and other cultural materials); and stone-milling equipment (e.g., mortars, pestles, and handstones). Prehistoric archaeological sites often contain human remains. Historical materials can include wood, stone, concrete, or adobe footings, walls, and other structural remains; debris-filled wells or privies; and deposits of wood, glass, ceramics, metal, and other refuse.

Adverse effects to archaeological cultural resources would be avoided by project activities, to the extent feasible. If such resources cannot be avoided, they would be evaluated in consultation with the City, tribal stakeholders (as appropriate), and the California State Historic Preservation Officer (SHPO) for their NRHP and CRHR eligibility. If the deposit is eligible for the NRHP and/or the CRHR, disturbance of the deposit would need to be avoided or such effects must be mitigated. Adverse effects and/or significant impacts may be mitigated through the implementation of a treatment plan developed in consultation with SWRCB, the City, tribal stakeholders (as appropriate), and SHPO. Mitigation may consist of, but is not necessarily limited to, systematic recovery and analysis of archaeological deposits; recording the resource; preparation of a report of findings; accessioning recovered archaeological materials at an appropriate curation facility; and community outreach. All reports produced as part of the evaluation and treatment of cultural resources identified during the project would be submitted to the City, tribal stakeholders (as appropriate), and SHPO for review and comment. All final, approved documents would be submitted to the NWIC.

Encountering Human Remains. If human remains are encountered during project activities, work within 25 feet of the discovery would be redirected and the County Coroner notified immediately. At the same time, an archaeologist would be contacted to assess the situation and consult with the City, tribal stakeholders (as appropriate), and SHPO regarding treatment of the remains. The requirements of Health and Safety Code §7050.5 must be followed as part of this process (as discussed below).

Project personnel should not collect or move any human remains and associated materials. If the human remains are of Native American origin, the Coroner must notify the NAHC within 24 hours of this identification. The Native American Heritage Commission will identify a Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.

The archaeologist would prepare a report that provides recommendations for the treatment of the human remains and any associated cultural materials, as well as any results from initial excavation and/or analysis. Treatment of the remains and associated cultural materials would be done in coordination with the recommendations of the MLD, the City, and SHPO. The report would be submitted to the City, tribal stakeholders (as appropriate), and SHPO for review and comment. All final, approved documents would be submitted to the NWIC.

AMENDMENTS AND PERMITS

As part of the proposed project evaluated in this Addendum, the following approvals and permits would be required:

- Demolition Permit
- Bay Area Air Quality Management District Authority to Construct

Figure 1: Regional Location

Figure 2: Project Location

Figure 3: Conceptual Project Layout

This page intentionally left blank.

ATTACHMENT B

ENVIRONMENTAL CHECKLIST PURSUANT TO CEQA GUIDELINES SECTION 15168

CEQA Guidelines 15168(c)(4) recommends using a written checklist or similar device to confirm whether the environmental effects of a subsequent activity were adequately covered in a previous environmental document. This checklist confirms that the City of Richmond Wastewater Treatment Plant Cogeneration Facility Project (proposed project) described in Attachment A is within the scope of the City of Richmond Wastewater Treatment Plant and Collection System Improvements Project Initial Study/Mitigated Negative Declaration (2016 IS/MND), adopted by the City of Richmond in December 2016.

Per CEQA Section 15164, this Addendum evaluates whether modifications and refinements to the proposed activities and improvements identified in the 2016 IS/MND (the proposed Cogeneration Facility Project) would result in new or substantially more adverse significant effects or require new mitigation measures not identified in the 2008 IS/MND. The City of Richmond is the CEQA Lead Agency for this Addendum.

As discussed in this Addendum, the proposed revisions to the original project resulting from construction of the Cogeneration Facility would not cause new significant environmental effects not identified in the 2016 IS/MND, nor would impacts associated with the project revisions be substantially more severe. The analyses in this checklist also shows that no substantive changes have occurred with respect to current circumstances under which the project would be undertaken that would cause new or substantially more severe significant environmental effects than were identified in the 2016 IS/MND. In addition, no new information has become available that shows that the project would cause new or substantially more severe significant environmental effects which have not already been analyzed in the 2016 IS/MND.

This page intentionally left blank

1. AESTHETICS

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	☐	☐	☐	☒
c. 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?	☐	☐	☐	☒

Discussion

The following includes a discussion of the potential impacts to aesthetics associated with the 2016 project as compared to the 2019 project. With respect to scenic vistas, scenic resources, visual character and quality, and lighting and glare conditions within the project site and vicinity, conditions are generally the same in 2019 as in 2016.

Scenic Vistas

No scenic vistas are identified in the City General Plan to or from the project area. However, the General Plan does contain policies to protect the surrounding hills and the San Francisco and San Pablo bays, which are considered the prominent scenic areas in the City. The hills surrounding the City include the Berkeley Hills to the southeast, San Pablo Ridge to the southwest, Sobrante Ridge to the east, and Point Richmond hills to the southwest. The San Francisco and San Pablo bays are located to the south, west, and north of the City.

The WWTP is located approximately 0.50 miles east of San Francisco Bay and is located approximately 0.50 miles southeast of Point Richmond. Due to site topography (e.g., steep bluff to the west and northwest [Nickols Knob]), views of San Francisco Bay, Miller Knox Regional Park, and the Point Richmond hills are fully obstructed. The vistas at the WWTP site consist largely of urban uses, such as industrial buildings, roadways, and the existing WWTP infrastructure.

Implementation of the proposed project would entail demolition of existing facilities and construction of new facilities within the boundaries of the WWTP. The majority of the proposed improvements would be approximately 15 to 20 feet tall, with some equipment elements extending to a height of approximately 50 feet. However, these structures would be located within the existing WWTP, would be no taller than other existing structures within the WWTP site, and would not impede scenic vistas. As described in the 2016 IS/MND, due to the site topography and existing development at the WWTP, scenic vistas of the surrounding hillsides and bays are very limited.

Therefore, impacts associated with the proposed project would not result in new impacts to scenic vistas or substantially increase the severity of impacts identified in the 2016 IS/MND.

Scenic Resources

The project area is not located within the vicinity of a State Scenic Highway. No historic buildings or rock outcroppings are located on or near the vicinity of the project area. Furthermore, implementation of the project would not result in the removal or damage of scenic resources. Therefore, impacts associated with the proposed project would not result in new impacts to scenic resources or substantially increase the severity of impacts identified in the 2016 IS/MND.

Visual Character

The WWTP site is largely developed with asphalt and paved surfaces and wastewater treatment structures and facilities. Like the 2016 project, construction activities for the proposed 2019 project include demolition of existing facilities, removal of associated debris, excavation, subsurface disturbance, site preparation, vehicle and truck trips, grading, use of heavy equipment (e.g., loaders, cranes, excavators, backhoes), and building new facilities. Construction activities associated with the proposed project would be visible from adjacent industrial uses, recreational users along the top of the bluff and for motorists on Canal Boulevard. However, these activities would only be visible temporarily during the construction period.

Implementation of the WWTP improvements would result in the demolition of existing facilities and construction of a new cogeneration facility at the WWTP. The proposed cogeneration facility would be constructed within the existing WWTP property and would be consistent in shape and size with the existing facilities onsite.

Therefore, the proposed project would not degrade the visual character of the project site or result in a potential impact to the visual character or quality of public views of the site or the surroundings that would be more severe than the impacts identified in the 2016 IS/MND.

Light and Glare

Streetlights, vehicle head and taillights, and lighting associated with the existing WWTP are the existing sources of light and glare in the project area. Similar to the 2016 project, the proposed project may require installation of some additional lighting at the WWTP site. As described in the 2016 IS/MND, the amount of light generated on the WWTP site would minimally increase compared to existing conditions; however, the WWTP is located within an industrial area of the City, which currently generates lighting levels similar to the project. On-site lighting levels would not be of a magnitude that would produce substantial amounts of glare in relation to glare produced by surrounding industrial uses. In addition, lights would be aimed and shielded to prevent impacts to the residential neighborhood to the north. Furthermore, lighting plans are subject to City review and approval. As such, the proposed project would result in a less than significant impact associated with creating a new source of substantial light or glare, and no mitigation is required. Therefore, the proposed project would not create impacts related to light and glare more severe than impacts identified in the 2016 IS/MND.

Applicable Mitigation

Based on the analysis above, no substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2016 IS/MND was adopted leading to new or more severe significant impacts related to aesthetics, and no new mitigation measures are required.

Conclusion

The 2016 IS/MND adequately evaluated the aesthetic impacts of the proposed project. Therefore, potential impacts would be less-than-significant and additional mitigation is not required.

2. AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Discussion

The 2016 IS/MND determined that the project site is located on land classified as "Urban and Built Up Land" by the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP). Urban and Built Up Land is occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10 acre parcel. Common examples include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment and water control structures. The WWTP site is zoned Public and Civic Uses; therefore, the project area is not zoned for agricultural use. In addition, the project area is not under a Williamson Act contract. No forest land or timberland is identified on or in the vicinity of the project area, and the project area is not zoned for forest or timber uses.

These conditions remain unchanged. As such, the proposed project would continue to have no impact on agricultural and forestry resources.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2016 IS/MND was adopted leading to new or more severe significant impacts, and no new mitigation measures are required.

Conclusion

The 2016 IS/MND adequately evaluated the agriculture and forestry impacts of the proposed project. Therefore, potential impacts would be less-than-significant and additional mitigation is not required.

3. AIR QUALITY

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

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

Discussion

The project site is located with the San Francisco Bay Area Air Basin. The Bay Area Air Quality Management District (BAAQMD) is the regional government agency that monitors and regulates air pollution within the air basin. The Federal Clean Air Act and the California Clean Air Act mandate the control and reduction of specific air pollutants. Under these Acts, the U.S. Environmental Protection Agency and the California Air Resources Board have established ambient air quality standards for specific "criteria" pollutants, designed to protect public health and welfare. Primary criteria pollutants include carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxides (NO_x), particulate matter (PM_{10}), sulfur dioxide (SO_2), and lead (Pb). Secondary criteria pollutants include ozone (O_3), and fine particulate matter ($PM_{2.5}$).

Based on the BAAQMD attainment status and ambient air quality monitoring data, ambient air quality in the vicinity of the project site has basically remained unchanged since approval of the 2016 IS/MND. However, the BAAQMD has made two key regulatory changes since the 2016 IS/MND was adopted. The updated Clean Air Plan was adopted in April 2017 and revised BAAQMD CEQA Guidelines were adopted in May 2017. These changes in the project circumstances as well as changes to the proposed project itself are discussed and evaluated in the following section.

Clean Air Plan Consistency

An air quality plan describes air pollution control strategies to be implemented by a city, county, or region classified as a non-attainment area. The main purpose of an air quality plan is to bring an area into compliance with the requirements of federal and State air quality standards.

The 2016 IS/MND referenced the BAAQMD Bay Area 2010 Clean Air Plan to determine if the 2016 project would conflict with or obstruct implementation of an applicable air quality plan. The 2016 IS/MND found that the 2016 project would not conflict with the goals or control measures included

in the Clean Air Plan; therefore, it was determined that the 2016 project would be consistent with the BAAQMD Clean Air Plan. As such, potential conflicts with the applicable air quality plan were considered less than significant.

The current BAAQMD clean air plan is the 2017 Clean Air Plan, which was adopted on April 19, 2017.[1] The 2017 Clean Air Plan provides a regional strategy to protect public health and protect the climate. To protect public health, the plan describes how the BAAQMD will continue progress toward attaining all State and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities. To protect the climate, the plan defines a vision for transitioning the region to a post-carbon economy needed to achieve ambitious greenhouse gas reduction targets for 2030 and 2050, and provides a regional climate protection strategy that will put the Bay Area on a pathway to achieve greenhouse gas (GHG) reduction targets.

The 2017 Clean Air Plan includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to Bay Area residents, such as particulate matter, ozone, and toxic air contaminants. It also includes control measures to reduce emissions of methane and other "super-GHGs" that are potent climate pollutants in the near-term, and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

Consistency with the Clean Air Plan can be determined if a project does the following: (1) supports the goals of the Clean Air Plan; (2) includes applicable control measures from the Clean Air Plan; and (3) would not disrupt or hinder implementation of any control measures from the Clean Air Plan. Because the 2017 Clean Air Plan is the most current clean air plan applicable to the region, the proposed project is evaluated for compliance with this plan below.

The project would comply with all applicable control measures as mandated by the City and BAAQMD, as follows:

Clean Air Plan Goals. The primary goals of the Bay Area Clean Air Plan are to: attain air quality standards; reduce population exposure and protect public health in the Bay Area; and reduce greenhouse gas emissions and protect climate.

The BAAQMD has established significance thresholds for project construction and operational impacts at a level at which the cumulative impact of exceeding these thresholds would have an adverse impact on the region's attainment of air quality standards. The health and hazards thresholds were established to help protect public health. As discussed below, implementation of the proposed project would result in less-than-significant operation-period emissions and, with implementation of Mitigation Measure AIR-1, the project would result in less-than-significant construction-period emissions. Therefore, the project would not conflict with the Clean Air Plan goals.

Clean Air Plan Control Measures. The BAAQMD identifies control measures as part of the Clean Air Plan to reduce ozone precursor emissions from stationary, area, mobile, and transportation sources. The control strategies of the Clean Air Plan include measures in the following categories: Stationary Source Measures, Transportation Measures, Energy Measures, Building Measures, Agriculture

[1] Bay Area Air Quality Management District, 2017. *Bay Area 2017 Clean Air Plan*. April 19.

Measures, Natural and Working Lands Measures, Waste Management Measures, Water Measures, and Super-GHG Pollutants Measures. The Transportation Control Measures are designed to reduce emissions from motor vehicles by reducing vehicle trips and vehicle miles traveled (VMT) in addition to vehicle idling and traffic congestion. The proposed project would not conflict with the identified Transportation Control Measures of the Clean Air Plan. The project would implement a Cogeneration Facility in order to beneficially use the digester gas generated at the WWTP. With implementation of the proposed project, the existing flares would be rehabilitated and upgraded as needed to ensure compliance with BAAQMD requirements, and minor improvements to the digester mixing and digester covers would be implemented to optimize digester mixing and digester gas production. Therefore, other measures from the Clean Air Plan are not applicable to the project.

Clean Air Plan Implementation. As discussed above, implementation of the proposed project would not disrupt or hinder implementation of the applicable measures outlined in the Clean Air Plan, including Transportation Control Measures. Therefore, the proposed project supports the goals of the Clean Air Plan and would not conflict with any of the control measures identified in the plan or designed to bring the region into attainment. Therefore, similar to the conclusions of the 2016 IS/MND for the 2016 project, the proposed project's potential conflicts with the applicable air quality plan would be less than significant and no new or more severe impacts would result due to the changes in the proposed project or changes in the applicable clean air plan.

Construction-Related Impacts

The 2016 IS/MND found that because only a few pieces of equipment would be used at any one time or location, daily emissions from equipment operation, vehicles transporting equipment and workers, and hauling materials would be minimal. The 2016 IS/MND determined that these emissions would be temporary and limited to the immediate area around the project site. Additionally, the 2016 IS/MND found that the 2016 project would not significantly increase traffic congestion in the area over existing levels. Therefore, the 2016 IS/MND determined that exhaust emissions would not be substantial and would not result in a violation of air quality standards.

The 2016 IS/MND also found that that in addition to exhaust emissions, the effects of construction activities would be increased dustfall and locally elevated levels of particulate matter downwind of construction areas, which would be potentially significant if unmitigated. The 2016 IS/MND identified Mitigation Measure AIR-1 to ensure compliance with BAAQMD-recommended measures for fugitive dust control and Best Management Practices to reduce this impact to a less-than-significant level.

Construction of the proposed project would occur between 2019 and 2028 and would require approximately 18 months to complete. Similar to the 2016 project, emissions would be temporary and limited to the immediate area around the project site and the proposed project would not significantly increase traffic congestion in the area over existing levels. Therefore, exhaust emissions would not be substantial and would not result in a violation of air quality standards. In addition, with implementation of Mitigation Measure AIR-1, fugitive dust impacts would be less than significant. With implementation of Mitigation Measure AIR-1, the proposed project would not result in new significant impacts beyond those identified in the 2016 IS/MND and no new mitigation measures are required.

Regional Air Pollutant Emissions

The 2016 IS/MND determined that the 2016 project would not increase the capacity of the current WWTP and sewer systems; rather, the 2016 project would improve the capacity of the current systems to accommodate existing peak hour wet weather flows, either through replacement of pipelines to reduce rainfall-dependent inflow and infiltration, increasing the diameter of the pipelines or installing parallel relief sewers.

In addition, the 2016 IS/MND found that the 2016 project would require the off-haul of biosolids once the Dewatering Facility is complete and operational. The Dewatering Facility would produce an average of 30 cubic yards of biosolids (sludge) per day that would be need to off hauled, resulting in an average of three truck trips per day. These additional trips would result in minimal emissions and would not result in a substantial increase in regional or localized emissions.

The 2016 IS/MND also found that the 2016 project would not result in additional emissions related to increased vehicle trips, as the project would not increase daily trip generation to the site, except for occasional trips for maintenance purposes. The 2016 IS/MND found that additional operational emissions could potentially be generated by the electricity consumption required for proposed dewatering equipment and biosolids drying equipment; however, the 2016 IS/MND found these emissions would be minimal and mostly offset by the proposed digester gas utilization project (biosolids post-processing). Therefore, the 2016 IS/MND determined that the 2016 project would not result in any additional operational emissions and would not result in operational emissions that would violate air quality standards or contribute substantially to an existing violation.

The proposed project would include a Cogeneration Facility, digester gas flares, and digester gas mixing and sludge withdrawal within the WWTP boundary. Currently, the WWTP generates digester gas, which is all flared. The Cogeneration Facility would include installation of cogeneration units and would allow the WWTP to use the digester gas rather than flaring it. The engines would include emissions control equipment as needed to comply with the BAAQMD requirements. The gas treatment system would remove hydrogen sulfide (H_2S) and volatile organic compounds (VOCs) from the digester gas, in order to enhance the reliability of the cogeneration units. The cleaned biogas would then be piped to the cogeneration engine. Gas treatment equipment would include a hydrogen sulfide removal system, a gas compression and moisture removal system, siloxane removal, and a glycol chiller. The existing flares, which are currently used to flare all digester gas generated onsite, were last updated over 25 years ago. The flares would be rehabilitated and upgraded as needed to ensure compliance with BAAQMD requirements. When the Cogeneration Facility is implemented, the flares would only be used to flare excess digester gas not used by the Cogeneration Facility. The Cogeneration Facility would be designed and operated to use as much digester gas as possible.

As part of the Cogeneration Facility, digester gas mixing and digester sludge withdrawal improvements, and digester cover replacement may be implemented. Digester gas mixing improvements may be implemented in order to improve volatile solids (VS) reduction within the digesters and increase digester gas production. Improvements would include upgrading the existing large capacity digester mixing pumps with variable frequency drives (VFDs). Sludge withdrawal piping improvements may be made to enable surface wasting from the digester to control proliferation of filamentous organisms and reduce foaming. Improvements would include additional

piping and valves in the vicinity of the existing digesters, as well as electrical and controls equipment necessary to support the new system.

Similar to the 2016 IS/MND, the proposed project would not result in additional emissions related to increased vehicle trips, as the project would not increase daily trip generation to the site, except for occasional trips for maintenance purposes and the three additional trips associated with sludge off-haul. These additional trips would result in minimal emissions and would not result in a substantial increase in regional or localized emissions. In addition, the proposed project would result in a net decrease in emissions as the Cogeneration Facility would use the digester gas to generate power for use at the WWTP. Therefore, the proposed project would not result in new or more significant operation-related air quality impacts, and these impacts would remain less than significant.

Local CO Impacts

The BAAQMD 2017 CEQA Guidelines establishes a screening methodology that provides a conservative indication of whether the implementation of a proposed project would result in significant CO emissions. According to the BAAQMD CEQA Guidelines, a proposed project would result in a less-than-significant impact to localized CO concentrations if the following screening criteria are met:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, and the regional transportation plan and local congestion management agency plans.

- Project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.

- The project would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, or below-grade roadway).

Implementation of the proposed project would not conflict with the Contra Costa County Transportation Authority for designated roads or highways, a regional transportation plan, or other agency plans. The project sites are not located in an area where vertical or horizontal mixing of air is substantially limited. The project would not increase traffic volumes at intersections to more than 44,000 vehicles per hour and intersection level of service associated with the project would not decline with the project. Therefore, because the project does not exceed the screening criteria, the project would not result in localized CO concentrations that would exceed State or federal standards and this potential impact would remain less than significant.

Local Community Risk and Hazard Impacts to Sensitive Receptors

The WWTP project site is located more than 600 feet from any residences and over 1,000 feet from any schools. The 2016 IS/MND found that construction of the 2016 project would generate localized air pollution concentrations; however substantial dispersion of emissions would occur beyond 500 feet from the construction site. The BAAQMD's Screening Tables for Air Toxics Evaluation During Construction indicate certain construction projects that are located within 300 feet of an existing

sensitive receptor could pose a significant health risk.[2] Therefore, the 2016 IS/MND determined that at more than 600 feet from the construction area, residents in the surrounding areas would not be exposed to a substantial increase in diesel engine exhaust during the construction period due to the operation of construction equipment.

The proposed project would also be located more than 600 feet from any residences and over 1,000 feet from any schools. Construction of the proposed project would result in an increase in airborne particulates, as well as a small quantity of construction equipment pollutants (i.e., usually diesel-fueled vehicles and equipment). However, construction contractors would be required to implement Mitigation Measure AIR-1 described above. With implementation of this mitigation measure, project construction pollutant emissions would be below the BAAQMD significance thresholds. Once the project is constructed, the project would not be a source of substantial pollutant emissions. Therefore, sensitive receptors would not be exposed to substantial pollutant concentrations during project construction and operation. The proposed project would not result in new or more significant air quality-related impacts to sensitive receptors.

Objectionable Odors

The 2016 IS/MND found that the 2016 project would contribute to a reduction in existing odors that occur during overflow conditions by installing a number of new odor control facilities and equipment. The proposed project would rehabilitate and upgrade the existing flares as needed to ensure compliance with BAAQMD requirements, and minor improvements to the digester mixing and digester covers would be implemented to optimize digester mixing and digester gas production. Therefore, it is anticipated that the proposed project could also contribute to a reduction in existing odors. Therefore, similar to the 2016 project, the proposed project would not create objectionable odors affecting a substantial number of people, and no mitigation is required.

Applicable Mitigation

As described in the 2016 IS/MND, impacts related to air quality were determined to be less than significant with implementation of Mitigation Measure AIR-1. No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2016 IS/MND was adopted leading to new or more severe significant impacts, and no new mitigation measures are required. Mitigation Measure AIR-1, previously identified in the IS/MND, would remain applicable to the proposed project, as follows:

- Mitigation Measure AIR-1: The construction contractor shall implement the following measures at the project site:
    - All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
    - All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

[2] BAAQMD, 2010. *Screening Tables for Air Toxics Evaluation During Construction.* May.

- All visible mud or dirt tracked-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping shall be prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- 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.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations (CCR)). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
- Post a publicly visible sign with the telephone number and person to contact at the City of Richmond regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

Conclusion

The 2016 IS/MND adequately evaluated the impacts of the proposed project. Therefore, potential impacts would be less-than-significant and additional mitigation is not required.

4. BIOLOGICAL RESOURCES

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

Discussion

Special Status Species

The 2016 IS/MND concluded that the project site is an urban area that would not generally provide habitat for native plants and is likely to have low wildlife habitat value. While some native wildlife species do utilize urban areas for foraging, roosting, and/or nesting, these species are expected to be common species that adapt to urban conditions and would not be adversely affected by implementation of the proposed project. Although construction noise and activity would be short-term and consistent with the types of activity that occur in an urban environment, incorporation of avoidance measures as part of the proposed project would ensure that no adverse effects to nesting birds covered under the Migratory Bird Treaty Act would occur.

Sensitive Natural Communities

As described in the 2016 IS/MND, potentially jurisdictional features with associated riparian habitat (willows) are present along the western perimeter of the WWTP. The proposed cogeneration facility would be located within the interior of the WWTP and would not impact these wetlands or their

associated riparian vegetation. No other sensitive natural communities occur on or adjacent to the site that would be impacted by the proposed project. Therefore, the proposed project would not result in any new or more significant impacts to riparian habitat or other sensitive natural communities than those identified in the 2016 IS/MND and no mitigation is required.

Wetlands

As described above, seasonal wetlands are situated near the western perimeter of the WWTP, where a retaining wall would be constructed as part of the 2016 project. The proposed cogeneration facility would be located within the interior of the WWTP. As such, potentially jurisdictional features in the project area would not be impacted by the proposed project, since construction work would avoid this area. Therefore, the proposed project would not result in any new or more significant impacts to wetlands than those identified in the 2016 IS/MND and no mitigation is required.

Wildlife Movement

As described in the 2016 IS/MND, the project site is primarily covered with asphalt and pavement and is developed with industrial uses. Because the project site is located in an urban environment, there are no major wildlife movement corridors that pass through the site. Therefore, the proposed project would not substantially interfere with the movement of established, native resident or migratory fish or wildlife species and would not create impacts that would exceed those evaluated in the 2016 IS/MND.

Local Polices or Ordinances

As described in the 2016 IS/MND, the City of Richmond does not have any local policies or ordinances protecting biological resources, with the exception of the City's tree ordinance (Chapter 10.08 of the Richmond, California Code of Ordinances). Impacts to any of the trees caused by direct removal or pruning would likely require a permit from the City of Richmond. Compliance with the City's tree ordinance would ensure that impacts associated with tree removal would be less than significant. Therefore, the proposed project would not result in any new or more significant impacts than those identified in the 2016 IS/MND.

Habitat Conservation Plan or Natural Community Conservation Plan

As described in the 2016 IS/MND, 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. Currently, no plan covers the project area. No impact would occur, and no mitigation is required.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2016 IS/MND was adopted leading to new or more severe significant impacts, and no new mitigation measures are required.

Conclusion

The 2016 IS/MND adequately evaluated the biological resources impacts of the proposed project. Therefore, potential impacts would be less-than-significant and additional mitigation is not required.

5. CULTURAL RESOURCES

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☐	☒
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

Discussion

The 2016 IS/MND determined that the proposed 2016 project would not result in significant impacts to cultural resources. Conditions related to historic and archaeological resources remain unchanged. As such, impacts of the proposed project would continue to be less than significant with implementation of the avoidance and minimization measures identified in the 2016 IS/MND and included in the proposed project, as discussed below.

Historic Resources

As noted in the 2016 IS/MND, the cluster of built environment features at the WWTP do not appear eligible for listing in either the National Register of Historic Place or California Register of Historical Resources due to a lack of historical integrity, nor do they otherwise constitute a historical resource for the purposes of CEQA.

Project activities would primarily disturb areas that have been previously disturbed and the geomorphology of the site makes it unlikely that intact subsurface archaeological deposits are present. Therefore, there is minimal potential for project construction activities to encounter and disturb intact archaeological cultural resources. Project contract specifications would stipulate that construction shall stop in the area if buried historical or prehistoric resources (e.g., structure/building remains, bottle glass, ceramics, unusual amounts of shell, stone tools, animal bone, etc.) are encountered until a qualified archaeologist evaluates the findings (refer to Attachment A, Project Description). Implementation of standard contract specifications would ensure that undiscovered resources are not impacted. Therefore, the proposed project would not result in any new or more significant impacts than those identified in the 2016 IS/MND.

Prehistoric and Historical Archaeological Resources

As described above, prehistoric or historic-period archaeological deposits have not been identified within the project site. Project activities would primarily disturb areas that have been previously disturbed and the geomorphology of the site makes it unlikely that intact subsurface archaeological deposits are present. Therefore, there is minimal potential for project construction activities to

encounter and disturb intact archaeological cultural resources. Project contract specifications would stipulate that construction shall stop in the area if buried historical or prehistoric resources (e.g., structure/building remains, bottle glass, ceramics, unusual amounts of shell, stone tools, animal bone, etc.) are encountered until a qualified archaeologist evaluates the findings. Implementation of standard contract specifications would ensure that undiscovered resources are not impacted. Therefore, the proposed project would not result in any new or more significant impacts than those identified in the 2016 IS/MND.

Disturbance of Human Remains

As noted in the 2016 IS/MND, prehistoric archaeological sites along the bay margin frequently contain Native American internments. Although Native American remains have not been identified within the project site, the presence of prehistoric shell midden sites in the vicinity indicate the potential for identifying Native American remains during project ground-disturbing activities. Incorporation of avoidance measures as part of the proposed project would ensure that no effect to human remains will occur. Therefore, the proposed project would not result in any new or more significant impacts than those identified in the 2016 IS/MND.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2016 IS/MND was adopted leading to new or more severe significant impacts, and no new mitigation measures are required.

Conclusion

The 2016 IS/MND adequately evaluated the potential cultural resources impacts of the proposed project. Therefore, potential impacts would be less-than-significant and additional mitigation is not required.

6. ENERGY

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

Discussion

The 2016 IS/MND did not evaluate potential energy impacts. Therefore, the following analysis evaluates energy consumption for both construction and operation of the proposed project, including diesel fuel use for construction off-road equipment.

Construction-Period Energy Use

Construction of the proposed project would require the use of energy to fuel grading vehicles, trucks, and other construction vehicles. All or most of this energy would be derived from non-renewable resources. In order to increase energy efficiency on the site during project construction, the project would restrict equipment idling times to 5 minutes or less and would require construction workers to shut off idle equipment, as required by the Mitigation Measure AIR-1. In addition, construction activities are not anticipated to result in an inefficient use of energy as gasoline and diesel fuel would be supplied by construction contractors who would conserve the use of their supplies to minimize their costs on the project. Energy usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the State's available energy sources. Therefore, construction energy impacts would be less than significant.

Operational Energy Use

Typically, energy consumption is associated with fuel used for vehicle trips and natural gas and energy use. The proposed project would include a Cogeneration Facility, digester gas flares, and digester gas mixing and sludge withdrawal within the WWTP boundary. The Cogeneration Facility would beneficially use the digester gas generated at the WWTP. The proposed Cogeneration Facility would be constructed in-lieu of the Biosolids Post-Processing Facility, which was evaluated in the 2016 IS/MND. Rather than use the digester gas to dry the digested biosolids on-site, the Cogeneration Facility would use the digester gas to generate power for use at the WWTP. As a result, dewatered biosolids produced by the future Dewatering Facility would not be dried on-site prior to off-site disposal.

In addition, the 2016 IS/MND evaluated the potential environmental impacts associated with replacing the existing digester gas piping and components of the flare with in-kind materials. Under the currently proposed project, the existing flares would be rehabilitated and upgraded as needed

to ensure compliance with BAAQMD requirements, and minor improvements to the digester mixing and digester covers would be implemented to optimize digester mixing and digester gas production.

Once operational the proposed project would result in a net decrease in long-term energy usage, as the Cogeneration Facility would use the digester gas to generate power for use at the WWTP, which would allow for a decreased dependence on nonrenewable energy resources. The proposed project would have minimal effect on natural gas demand. In addition, the project would not increase daily trip generation to the site, except for occasional trips for maintenance purposes. Therefore, implementation of the project would not result in a long-term substantial demand for electricity and natural gas nor would the project require new service connections or construction of new off-site service lines or substations to serve the project. The nature of proposed improvements would not require substantial amounts of energy for either construction or maintenance purposes. Therefore, the proposed project would not use non-renewable resources in a wasteful or inefficient manner.

Conflict or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency

The California Energy Commission (CEC) recently adopted the 2017 Integrated Energy Policy Report.[3] The 2017 Integrated Energy Policy Report provides the results of the CEC's assessments of a variety of energy issues facing California. Many of these issues will require action if the State is to meet its climate, energy, air quality, and other environmental goals while maintaining energy reliability and controlling costs. The 2017 Integrated Energy Policy Report covers a broad range of topics, including implementation of Senate Bill 350, integrated resource planning, distributed energy resources, transportation electrification, solutions to increase resiliency in the electricity sector, energy efficiency, transportation electrification, barriers faced by disadvantaged communities, demand response, transmission and landscape-scale planning, the California Energy Demand Preliminary Forecast, the preliminary transportation energy demand forecast, renewable gas (in response to Senate Bill 1383), updates on Southern California electricity reliability, natural gas outlook, and climate adaptation and resiliency.

As indicated above, energy usage on the project site during construction would be temporary in nature. In addition, once operational the proposed project would result in a net decrease in long-term energy usage, as the Cogeneration Facility would use the digester gas to generate power for use at the WWTP, which would allow for a decreased dependence on nonrenewable energy resources. As such, the proposed project would be considered a renewable energy project and would be consistent with plans for renewable energy and energy efficiency, including California's energy conservation plans as described in the CEC's 2017 Integrated Energy Policy Report. Thus, the proposed project would not conflict or obstruct a State or local plan for renewable energy or energy efficiency and impacts would be less than significant.

Applicable Mitigation

The 2016 IS/MND did not evaluate potential energy impacts; however as discussed above, impacts related to energy were determined to be less than significant and no mitigation measures were identified. No substantial changes in environmental circumstances have occurred for this topic, nor

[3] California Energy Commission, 2017. *2017 Integrated Energy Policy Report. California Energy Commission. Publication Number: CEC-100-2017-001-CMF*.

revisions to the project, nor new information that could not have been known at the time the 2016 IS/MND was adopted leading to new or more severe significant impacts, and no new mitigation measures are required.

Conclusion

The 2016 IS/MND did not evaluate potential energy impacts; however potential impacts would be less-than-significant and mitigation is not required.

7. GEOLOGY AND SOILS

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☐	☐	☒
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv. Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating direct or indirect substantial risks to life or property?	☐	☐	☐	☒
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

Discussion

The following includes a discussion of the potential impacts to geology and soils associated with the 2016 project as compared to the 2019 project. With respect to geotechnical conditions at the site, these conditions are generally the same in 2019 as in 2016. The site topography has not been modified since adoption of the 2016 IS/MND. However, the proposed project would be subject to the most recent State and local building and safety codes applicable to the type of construction proposed for the project site, which is substantially the same as the 2016 project.

Seismicity and Seismic Hazards

The 2016 IS/MND analyzed the geological, seismic, and soil conditions of the project site and determined that the 2016 project could expose people and structures to hazards related to strong seismic ground shaking. Specifically, major active faults in the region that could cause ground shaking in the project area include the Hayward Fault, the Concord-Green Valley fault, and the San Andreas Fault. The Hayward Fault is the closest fault to the City and is located approximately four miles east of the WWTP site. These faults are likely to produce a substantial earthquake during the

life of the proposed project. The 2019 project is substantially similar in the type of uses and design as the 2016 project and would be susceptible to the same seismic hazards as identified for the 2016 project. Like the 2016 project, no habitable structures would be constructed as part of the proposed project. Although seismic ground shaking may occur in the project area, the proposed project would be designed and constructed consistent with the most current version of the California Building Code (CBC), which includes specifications and design criteria to minimize damage from anticipated ground shaking. It is acknowledged that seismic hazards cannot be completely eliminated, even with implementation of advanced building practices. However, the seismic design standards of the CBC are intended to prevent catastrophic building failure in the most severe earthquakes currently anticipated. Therefore, the project would result in a less than significant impact related to increasing the exposure of people or structures to ground shaking compared to existing conditions, and no mitigation is required.

The project area is generally level and is therefore not subject to landslides. However, USGS landslide maps show the WWTP is located adjacent to an area of known landslides. The steep slopes of Nickols Knob directly above the WWTP site are shown to have slope instabilities in the form of recently exposed rock surfaces and talus at the base of slopes visible to the west of the site. Debris flow source areas, which are not mapped in the immediate vicinity of the project area, are shown near the top of Nickols Knob. Field observations reveal the unstable nature of some of the slopes in the area. Recent rock fall deposits can be observed in a number of areas adjacent to the WWTP site.[4] During storm and seismic shaking events, additional rock falls could occur. No habitable structures would be constructed as part of the proposed project nor would construction of the proposed project increase the potential for landslide hazards on adjacent slopes. The proposed cogeneration facility would be located within the interior of the WWTP site; therefore, impacts associated with landslides would be less than significant, and no mitigation is required.

As such, the 2019 project would not result in any new or more significant impacts related to seismic hazards than previously analyzed in the 2016 IS/MND.

Erosion/Loss of Top Soil

Potential impacts associated with erosion and loss of topsoil were determined to be less than significant with implementation of a Stormwater Pollution Prevention Plan (SWPP) and an Erosion and Sediment Control Plan (ESCP) and the same would be true for the proposed 2019 project. Under the Construction General Permit, a SWPPP and construction BMPs detailed in the SWPPP would be required during construction activities. Construction BMPs would include Erosion and Sediment Control BMPs designed to minimize erosion and retain sediment onsite. In addition, per Section 12.44.030 of the City Municipal Code, an ESCP would be required prior to issuance of a grading permit. The ESCP would provide the details of additional erosion control measures to be applied on site to minimize soil erosion, maximize sediment interception, and control stormwater runoff from the construction sites. Implementation of a SWPPP and ESCP, reviewed and approved by the City, would reduce potential impacts to soil erosion or the loss of topsoil to a less than significant level.

[4] Questa Engineering Corp., 2013. Draft Geotechnical Investigation for the Wet Weather Storage Tank, Pump Station and Pipeline, to be located adjacent to the City of Richmond Wastewater Treatment Plant, 601 Canal Boulevard, Richmond, California.

As such, the 2019 project would not result in any new or more significant impacts related to potential soil erosion than previously analyzed in the 2016 IS/MND. Refer to Section 10.a of this Addendum for additional discussion.

Unstable and Expansive Soils

The 2019 project would be subject to the same geological, seismic, and soil conditions as those identified for the 2016 project. As required for the 2016 project, the 2019 project would be constructed in compliance with applicable construction codes and requirements intended to mitigate any adverse impacts resulting from ground shaking, ground failure, liquefaction, and expansive soils. As such, the proposed project would not result in any new or more significant impacts associated with ground shaking, liquefaction, landslides, and expansive soils than previously analyzed in the 2016 IS/MND.

Septic Tanks/Wastewater Disposal

As with the 2016 project evaluated in the 2016 IS/MND, the proposed project would not install septic systems or other alternative waste disposal systems on the project site. The proposed project would connect to existing sewer infrastructure within the vicinity of the site and there would be no impact related to this topic.

Paleontological Resources

The 2016 IS/MND determined that although no paleontological resources have been identified within the project site, the presence of a geological formation that is known to contain fossils indicates some paleontological sensitivity at the site. The 2016 IS/MND identified the possibility of encountering significant paleontological resources in the Franciscan Complex that underlies the project site during ground disturbing activities. Ground disturbing activities associated with the proposed project would be similar to those proposed for the 2016 project and evaluated in the 2016 IS/MND. Implementation of Mitigation Measure CULT-1, which was identified in the 2016 IS/MND, would ensure that potential impacts to previously unidentified paleontological resources are reduced to less-than-significant levels. As such, with implementation of Mitigation Measure CULT-1, development of the proposed project would not result in new or more severe impacts to paleontological resources than identified in the 2016 IS/MND.

Applicable Mitigation

Based on the analysis above, no substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2016 IS/MND was adopted leading to new or more severe significant impacts related to geology and soils, and no new or modified mitigation measures are required. Mitigation Measure CULT-1, previously identified in the IS/MND, would remain applicable to the proposed project, as follows:

- Mitigation Measure CULT-1: The project applicant shall inform its contractor(s) of the sensitivity of the project area for paleontological resources by including the following directive in contract documents:

The subsurface of the construction site may be sensitive for paleontological resources. If paleontological resources are encountered during project subsurface construction, all ground-disturbing activities within 25 feet shall be redirected and a qualified paleontologist contacted to assess the situation, consult with agencies as appropriate, and make recommendations for the treatment of the discovery. Project personnel shall not collect or move any paleontological materials. Paleontological resources include fossil plants and animals, and such trace fossil evidence of past life as tracks. Ancient marine sediments may contain invertebrate fossils such as snails, clam and oyster shells, sponges, and protozoa; and vertebrate fossils such as fish, whale, and sea lion bones. Vertebrate land mammals may include bones of mammoth, camel, saber tooth cat, horse, and bison. Paleontological resources also include plant imprints, petrified wood, and animal tracks.

The City shall verify that the language has been included in the contract documents before issuing construction permits.

Adverse effects to such deposits should be avoided by project activities. If avoidance is not feasible, the paleontological resources shall be evaluated for their significance. If the resources are not significant, avoidance is not necessary. If the resources are significant, project activities shall avoid disturbing the deposits, or the adverse effects of disturbance shall be mitigated. Upon completion of the paleontological assessment, a report shall be prepared documenting the methods, results, and recommendations of the assessment. The report shall be submitted to the applicant and the City of Richmond and, if paleontological materials are recovered, a paleontological repository, such as the University of California Museum of Paleontology.

Conclusion

The 2016 IS/MND adequately evaluated the geology and soils impacts of the proposed project and with implementation of Mitigation Measure CULT-1, there would be no new impacts related to geology and soils associated with the proposed project.

8. GREENHOUSE GAS EMISSIONS

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
Would the project:				
g. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	☒
h. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

Discussion

As described in the 2016 IS/MND, GHGs are present in the atmosphere naturally, and are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. However, over the last 200 years, human activities have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere, and enhancing the natural greenhouse effect, which is believed to be causing global climate change. The gases that are widely seen as the principal contributors to human-induced global climate change are:

- Carbon dioxide (CO_2)
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur Hexafluoride (SF_6)

While GHGs produced by human activities include naturally-occurring GHGs such as CO_2, CH_4, and N_2O, some gases, like HFCs, PFCs, and SF_6 are completely new to the atmosphere. Certain other gases, such as water vapor, are short-lived in the atmosphere compared to those GHGs that remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is generally excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation. For the purposes of this analysis, the term “GHGs” will refer collectively to the six gases identified in the bulleted list provided above.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another

gas. The global warming potential is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to carbon dioxide, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of pounds or tons of "CO_2 equivalents" (CO_2e). For example, sulfur hexafluoride is 22,800 times more potent at contributing to global warming than carbon dioxide.

Construction Greenhouse Gas Emissions

The BAAQMD does not have an adopted threshold of significance for construction-related GHG emissions. Construction activities would produce combustion emissions from various sources. During construction of the project, GHGs would be emitted through the operation of construction equipment and from worker vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Furthermore, CH_4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

The 2016 IS/MND found that construction would begin December 2016 and finish March 2028 and only a few pieces of equipment would operate at any one time or location. As such, the 2016 IS/MND determined that annual emissions would be only a small fraction of total emissions and would not have a significant effect on the environment related to GHG emissions.

Similar to the 2016 IS/MND, construction of the proposed project would occur between 2019 and 2028 and would require approximately 18 months to complete. In addition, similar to the 2016 IS/MND, annual emissions would be only a small fraction of total emissions and would not have a significant effect on the environment related to GHG emissions. In addition, implementation of Mitigation Measure AIR-1 as identified in the 2016 IS/MND would reduce construction-related GHG emissions by reducing the amount of construction vehicle idling and by requiring the use of properly maintained equipment. Therefore, construction of the proposed project would not result in new or more severe impacts related to construction-period GHG emissions than identified in the 2016 IS/MND.

Operational Greenhouse Gas Emissions

The 2016 IS/MND found that once operational the 2016 project would likely result in a net decrease in long-term operational GHG emissions, due to the installation of digester gas utilization equipment (installed as part of the biosolids post-processing facility). The 2016 project would not generate emissions or result in any additional employees or residents. Therefore, the 2016 IS/MND found that the 2016 project would not exceed the operational-related GHG emissions thresholds of 1,100 metric tons of CO_2e a year or 4.6 metric tons of CO_2e per service population. Therefore, the 2016 project would not have a significant effect on the environment related to GHG emissions.

The proposed project would include a Cogeneration Facility, digester gas flares, and digester gas mixing and sludge withdrawal within the WWTP boundary. Currently, the WWTP generates digester gas, which is all flared. The Cogeneration Facility would include installation of cogeneration units

and would allow the WWTP to use the digester gas rather than flaring it. The engines would include emissions control equipment as needed to comply with the BAAQMD requirements. The gas treatment system would remove H_2S and VOCs from the digester gas, in order to enhance the reliability of the cogeneration units. The cleaned biogas would then be piped to the cogeneration engine. Gas treatment equipment would include a hydrogen sulfide removal system, a gas compression and moisture removal system, siloxane removal, and a glycol chiller. The existing flares, which are currently used to flare all digester gas generated onsite, were last updated over 25 years ago. The flares would be rehabilitated and upgraded as needed to ensure compliance with BAAQMD requirements. When the Cogeneration Facility is implemented, the flares would only be used to flare excess digester gas not used by the Cogeneration Facility. The Cogeneration Facility would be designed and operated to use as much digester gas as possible.

As part of the Cogeneration Facility, digester gas mixing and digester sludge withdrawal improvements, as well as digester cover replacement may be implemented. Digester gas mixing improvements may be implemented in order to improve VS reduction within the digesters and increase digester gas production. Improvements would include upgrading the existing large capacity digester mixing pumps with VFDs. Sludge withdrawal piping improvements may be made to enable surface wasting from the digester to control proliferation of filamentous organisms and reduce foaming. Improvements would include additional piping and valves in the vicinity of the existing digesters, as well as electrical and controls equipment necessary to support the new system.

Once operational, the proposed project would not result in additional emissions related to increased vehicle trips, as the project would not increase daily trip generation to the site, except for occasional trips for maintenance purposes. Similar to the 2016 IS/MND, once operational the proposed project would likely result in a net decrease in long-term operational GHG emissions as the proposed project would result in a net decrease in emissions as the Cogeneration Facility would use the digester gas to generate power for use at the WWTP. The proposed project also would not generate emissions or result in any additional employees or residents. As such, the proposed project would not exceed the operational-related GHG emissions thresholds of 1,100 metric tons of CO_2e a year or 4.6 metric tons of CO_2e per service population. Similar to the 2016 project, impacts would be less than significant and the proposed project would not result in new or more severe impacts related to operation-period GHG emissions than identified in the 2016 IS/MND.

Consistency with Greenhouse Gas Reduction Plans

The 2016 IS/MND found that the 2016 project would not be directly subject to any AB 32 requirements and thus would not conflict with the State goal of reducing GHG emissions and would not conflict with the AB 32 Scoping Plan. The 2016 project would be subject to all applicable permit and planning requirements in place or adopted by the City. Therefore, the 2016 IS/MND determined that the 2016 project would not conflict with plans or policies related to the reduction of GHG emission.

Since approval of the 2016 IS/MND, the City of Richmond adopted the Climate Action Plan (CAP),[5] which addresses environmental, social and economic issues related to climate change. The CAP

[5] Richmond, City of. 2016. *City of Richmond Climate Action Plan*. October.

builds on the goals and policies in the City's General Plan and the Health in All Policies Strategy (HiAP) to further the City's efforts to build health equity through the reduction of local GHG emissions, and to ensure that the community is well prepared for the impacts of climate change. The CAP also provides an inventory of the City's emissions, establishes an emissions reduction target, and identifies feasible City and community actions that cost-effectively reduce GHG emissions and improve community health across all sectors. The CAP provides objectives and strategies related to Energy Efficient Buildings and Facilities, Increase Use and Generation of Renewable Energy, Sustainable Transportation and Land Use, Zero Waste, Water Conservation, Green Infrastructure, Urban Forestry and Local Agriculture, Green Business and Industry, and Resiliency to Climate Change.

The proposed project would implement a Cogeneration Facility in order to beneficially use the digester gas generated at the WWTP. With implementation of the proposed project, the Cogeneration Facility would use the digester gas to generate power for use at the WWTP, the existing flares would be rehabilitated and upgraded as needed to ensure compliance with BAAQMD requirements, and minor improvements to the digester mixing and digester covers would be implemented to optimize digester mixing and digester gas production. CAP objectives and strategies would not be directly applicable to the proposed project. As with the 2016 project, the proposed project would be subject to all applicable permit and planning requirements in place or adopted by the City. Therefore, the proposed project would not conflict with plans, policies, or regulations adopted for the purpose of reducing GHG emissions. Therefore, the proposed project would not result in new significant impacts beyond those identified in the 2016 IS/MND. No new mitigation measures are required.

Applicable Mitigation

As described in the 2016 IS/MND, impacts related to greenhouse gas emissions were determined to be less than significant and no mitigation measures were identified. No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2016 IS/MND was adopted leading to new or more severe significant impacts, and no new mitigation measures are required.

Conclusion

The 2016 IS/MND adequately evaluated the impacts of the proposed project. Therefore, potential impacts would be less-than-significant and mitigation is not required.

9. HAZARDS AND HAZARDOUS MATERIALS

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
Would the project:				
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 2 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?	☐	☐	☐	☒

Discussion

Transport, Use, Storage, and Disposal of Hazardous Materials

The project proposes the demolition of the existing structures on the project site and construction of a new cogeneration facility and associated improvements. Operation and maintenance of WWTP improvements would involve the transport, use, storage, and disposal of small quantities of hazardous materials (e.g., cleaners, fuels, lubricants, hydraulic fluids) similar to existing operations. Any business with hazardous materials storage, use, handling or disposal is required to comply with federal, State, and local requirements for managing hazardous materials and wastes. Businesses that use hazardous materials are required to submit a Hazardous Materials Business Plan to the local Certified Unified Program Agency (CUPA), which performs inspections to ensure compliance with hazardous materials labeling, training and storage regulations.

During project construction, hazardous materials such as fuel, lubricants, paint, sealants, and adhesives would be transported and used at the project site. The proposed project would be required to comply with federal, State, and local regulations regarding the transportation, use, and

disposal of hazardous materials, including preparation and implementation of a SWPPP which requires implementation of control measures for hazardous material storage and soil stockpiles, inspections, maintenance, and training, and containment of releases to prevent runoff into existing storm collection systems or waterways.

In summary, compliance with existing safety regulations and widely-accepted industry standards would minimize the hazard to the public and the environment. Construction and operation of the project would be required to comply with the Uniform Fire Code and local building codes for the storage of hazardous materials and construction of structures containing hazardous materials. Therefore, similar to the 2016 project and conclusions provided in the 2016 IS/MND, potential impacts associated with the transport, use, storage, handling and disposal of hazardous materials during operation of the 2019 project would be less than significant, and no mitigation is required.

Release of Hazardous Materials and Risk of Upset

The WWTP site is not a State-listed hazardous materials clean-up site. According to the State Water Resources Control Board's (SWRCB) Geotracker website,[6] one State-listed hazardous materials site is located within 1,000 feet of the WWTP site. The site is owned by the City of Richmond and consists of a permitted underground storage tank (UST) located on WWTP site. No State-listed hazardous materials sites are located within 1,000 feet of the WWTP, which could impact the project site.

The proposed project would require demolition of existing structures at the WWTP to accommodate the proposed cogeneration facility. Given their age and use, these existing structures could contain asbestos-containing materials (ACMs), lead-based paints (LBPs), and polychlorinated biphenyls (PCBs), which could expose workers and/or the public to hazardous building materials during demolition. The removal of hazardous building materials prior to demolition is governed by federal and State laws and regulations. Federal regulations require that lead-based paint be removed prior to demolition if the paint is loose and peeling. Loose and peeling paint must be disposed of as a State and/or federal hazardous waste if the concentration of lead exceeds applicable waste thresholds. State and federal construction worker health and safety regulations require air monitoring and other protective measures during demolition activities where lead-based paint is present, and notification to the California Division of Occupational Safety and Health (DOSH) for abatement activities. Workers who conduct hazardous materials abatement and demolition activities must be trained in accordance with Occupational Health and Safety Administration (OSHA) and California OSHA requirements. Hazardous building materials removed during construction must be transported in accordance with U.S. Department of Transportation regulations and disposed of in accordance with the federal Resource Conservation and Recovery Act (RCRA), the California Code of Regulations, and/or the California Universal Waste Rule at a facility permitted to accept the wastes. Section 19827.5 of the California Health and Safety Code requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. If asbestos is identified, the BAAQMD Regulation 11-2-401.3 requires notification to be

[6] State Water Resources Control Board, 2019. GeoTracker. Available online at: http://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=601+Canal+Boulevard%2C+Richmond%2C+California (accessed June 15, 2019).

made to BAAQMD prior to demolition activities. Other hazardous building materials, such as electrical equipment and fluorescent light ballasts containing polychlorinated biphenyls (PCBs), and fluorescent tubes or thermostats containing mercury, must be removed from buildings prior to demolition and disposed of in accordance with the California Universal Waste Rule and other federal and State regulations. Abatement of hazardous building materials in accordance with local, State, and federal requirements prior to demolition of structures on the project site, would reduce potential impacts related to the accidental release of hazardous building materials during demolition to a less-than-significant level. Therefore, the proposed project would not lead to new or more severe impacts beyond those identified in the 2016 IS/MND.

Emission of Hazardous Materials within 0.25 miles of a School

As identified in the 2016 IS/MND, the project site is not located within 0.25 miles of an existing school and the 2016 project would have no impact associated with the emission of hazardous materials within 0.25 miles of an existing school. Likewise, the 2019 project would not result in any new or more significant impacts associated with the release of hazardous materials within 0.25 miles of an existing school than identified in the 2016 IS/MND.

Hazardous Materials Site Pursuant to Government Code Section 65962.5

As identified in the 2016 IS/MND, the project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Development of the proposed project would therefore not create a significant hazard to the public or the environment as a result of being located on a hazardous site. As such, development of the proposed project would not result in any new or more significant impacts than identified in the 2016 IS/MND related to development on a hazardous materials site.

Aviation Hazards

As identified in the 2016 IS/MND, the project site is not located within the vicinity of any public or private use airports. Therefore, neither the 2016 nor the 2019 proposed project would cause a hazard to air navigation or result in a safety hazard for people residing or working in the project area.

Emergency Response or Evacuation Plan

Similar to the 2016 project, the proposed project would not result in the development of structures or alteration of existing roadways that would impede or obstruct emergency response plans or evacuation plans. Therefore, development and operation of the proposed project is not anticipated to interfere with any emergency evacuation plan.

Wild Fire

The WWTP is located within a developed urban area and according to the California Department of Fire and Forestry Protection (CalFire), the WWTP site is not located in a Very High Fire Hazard Severity Zone.[7] The proposed project would include replace existing infrastructure on site and would

[7] CalFire, 2009. Contra Costa County Very High Fire Hazard Severity Zones in LRA. Available online at: http://frap.fire.ca.gov/webdata/maps/contra_costa/fhszl_map.7.pdf (accessed June 17, 2019).

not change the degree of exposure to wildfires because no new housing or businesses would be constructed and no flammable materials would be used. Therefore, similar to the 2016 project, the proposed project would not expose people or structures to a significant loss, injury or death involving wildland fires.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2016 IS/MND was adopted leading to new or more severe significant impacts, and no new mitigation measures are required.

Conclusion

The 2016 IS/MND adequately evaluated the hazards and hazardous materials impacts of the proposed project. Therefore, potential impacts would be less-than-significant and additional mitigation is not required.

10. HYDROLOGY AND WATER QUALITY

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater?	☐	☐	☐	☒
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 result in substantial erosion or siltation on- or off-site? i. result in substantial erosion or siltation on- or off-site; ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or 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?	☐	☐	☐	☒

Discussion

The 2016 IS/MND determined that impacts associated with hydrology and water quality would be less than significant. Conditions within and in the vicinity of the site related to hydrology and water quality have remained essentially unchanged since adoption of the 2016 IS/MND. Impacts to hydrology and water quality associated with the proposed project as compared to the 2016 project are discussed below.

Water Quality Standards

Construction. The 2016 IS/MND identified potential impacts associated with stormwater runoff quality during the construction and operation period of the 2016 project. However, in compliance with the State Water Resources Control Board's National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, as amended by 2010-0014-DWG and 2012-0006-DWQ, NPDES No. CAS000002) (Construction General Permit), the Construction Contractor would be required to prepare a SWPPP and implement construction BMPs detailed in the SWPPP during

construction activities. In addition, per the City Municipal Code, an ESCP would be required to be prepared and implemented, which would include additional erosion control measures on site to minimize soil erosion, maximize sediment interception, and control stormwater runoff from the construction site. Adherence to the requirements of the Construction General Permit and preparation of an ESCP would ensure that construction of the project would result in a less than significant impact associated with the violation of water quality standards or waste discharge requirements.

The proposed project would result in the construction of a new Cogeneration Facility within the WWTP site. As stated in the project description (Attachment A), the Cogeneration Facility is anticipated to be located in an area that is currently paved (the area currently occupied by unused solids facilities). If the Cogeneration Facility is located elsewhere on the site (in an unpaved area), the total amount of paved area at the WWTP would increase by approximately 3,200 square feet or approximately 0.075 acres, resulting in additional impervious surfaces than was previously analyzed as part of the 2016 IS/MND. With the proposed project, the total increase in impervious surfaces for the WWTP project would be 8,200 square feet or approximately 0.185 acres. As such, the proposed project could result in a minor increase in impervious surfaces upon which pollutants such as metals, sediment, oil and grease could accumulate and come into contact with rain and stormwater runoff, as compared to the 2016 project. However, the increase in impervious surface coverage does not represent a significant change from what was proposed and evaluated in the 2016 IS/MND.

Adherence to regulatory requirements would ensure that potential impacts of the proposed project are less than significant with respect to water quality. In particular, preparation and implementation of the SWPPP and ESCP, which require implementation of Construction BMPs during construction, including erosion and sediment control, are designed to minimize erosion and retain sediment on site, and identify good housekeeping practices to prevent spills, leaks, and discharge of construction debris and waste into receiving waters.

Operation. Once constructed, proposed improvements would operate under the existing NPDES Industrial Storm Water Permit. Adherence to the NPDES Industrial Permit would ensure that long-term operation of the proposed project would not violate any water quality standards or waste discharge requirements.

Although development of the proposed project could result in potential impacts to water quality, these impacts would not be more intensive than those identified for the 2016 project as discussed in the 2016 IS/MND and would be less than significant through compliance with regulatory requirements. Therefore, the proposed project would not result in any new or more severe impacts and new mitigation measures are not required.

Deplete Groundwater Supplies

As discussed in the 2016 IS/MND, the proposed project would result in the construction of buildings on the currently developed project site and would result in a nominal increase of impervious surface area (approximately 0.1 acres). Similar to the 2016 project evaluated in the 2016 IS/MND, the proposed project would not include the use of groundwater during operation. Because the proposed project would not result in the development of large areas of impervious surfaces that

would prevent water from infiltrating into the groundwater nor would it result in direct additions or withdrawals to existing groundwater, operation of the project would result in a less than significant impact associated with depleting groundwater supplies or substantially interfering with groundwater recharge, and no mitigation is required.

Groundwater dewatering may be required if groundwater is encountered during construction activities. Dewatering, if necessary, would be conducted in compliance with the permit conditions of the San Francisco Bay Regional Water Quality Control Board (RWQCB) Groundwater General Permit (Order No. R2-2012-0060, NPDES No. CAG912004). It is anticipated that if groundwater dewatering is required, the volume of groundwater that would be removed would be minor and would not substantially deplete existing groundwater supplies. Therefore, construction of the project would result in a less than significant impact associated with depleting groundwater supplies or substantially interfering with groundwater recharge, and no mitigation is required.

As such, similar to the 2016 project, the proposed project would not result in any significant impacts related to groundwater supplies.

Drainage Pattern and Surface Run-off

The proposed project would not alter the course of a stream or river. The project would alter drainage patterns by creating new impermeable pavement surfaces. However, the increase in impervious surface would be minimal. As discussed above, the proposed project would be required to comply with the Construction General Permit and the City's Municipal Code, which require preparation of a SWPPP and ESCP to control erosion and sedimentation during construction and to prevent spills, leaks, and discharge of construction debris and waste into receiving waters. Once constructed, proposed improvements would operate under the existing NPDES Industrial Storm Water Permit.

Required compliance with applicable regulations, as described above, would reduce potential impacts of the project related to changes in drainage patterns to a less-than-significant level.

Flood Hazard, Tsunami, Seiche Zones

The 2016 IS/MND determined that the project site would not be subject to any hazards associated with seiches, extreme high tides, or tsunamis. As described in Section 7, Geology and Soils, the WWTP is below the steep slopes of Nickols Knob, which is unstable and could create mudflows that inundate the WWTP. Construction of the proposed project would not increase the potential for landslide hazards on adjacent slopes. In order to protect the WWTP facilities from rockslides or mudflows, a containment wall and netting would be constructed on the western boundary of the site at the base of the hill to improve plant safety. In addition, the proposed project would be consistent with the California Building Code requirements. Therefore, similar to the 2016 project, the proposed project would not expose people or structures to inundation by seiche, tsunami, or mudflow.

Conflict with Water Quality Control Plan or Sustainable Groundwater Management Plan

As discussed above, due to the size of the proposed project, construction and operation of the project would be subject to State and regional requirements related to stormwater runoff. Required compliance with State and local regulations regarding stormwater and dewatering during construction and operation would ensure that the proposed project would not conflict or obstruct implementation of a water quality control plan or sustainable groundwater management plan. As a result, this impact would be less than significant.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2016 IS/MND was adopted leading to new or more severe significant impacts, and no new mitigation measures are required.

Conclusion

The 2016 IS/MND adequately evaluated the hydrology and water quality impacts of the proposed project. Therefore, potential impacts would be less-than-significant and additional mitigation is not required.

11. LAND USE AND PLANNING

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
Would the project:				
a. Physically divide an established community?	☐	☐	☐	☒
b. Cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

Discussion

The following includes a discussion of the potential impacts related to land use and planning associated with the proposed project as compared to the 2016 project. With respect to current land uses within and in the vicinity of the site, conditions are generally the same in 2019 as in 2016.

Divide an Established Community

Projects that have the potential to physically divide an established community include projects such as new freeways and highways, major arterials, streets, and railroad lines. The 2016 IS/MND determined that the 2016 project would result in a less-than-significant impact associated with physically dividing an established community.

The proposed project involves the construction of a new Cogeneration Facility in-lieu of the previously proposed Biosolids Post-Processing Facility. Although the proposed Cogeneration Facility was not previously analyzed in the 2016 IS/MND, the proposed facility would be located within the existing boundaries of the WWTP; therefore, the general development footprint of proposed project would be similar to the 2016 project. Therefore, the proposed project would not inhibit public connectivity, and would not physically divide a community. The proposed project would not result in any new or more severe impacts beyond those already identified in the 2016 IS/MND.

Conformance with Land Use Plans

The 2016 IS/MND determined that the 2016 project would comply with the City of Richmond General Plan and the City of Richmond Zoning Ordinance. The proposed project is consistent with the type and intensity of development allowed within the Public, Cultural and Institutional land use designation. The proposed project would not require changes to General Plan land use designations or zoning districts. Therefore, the proposed project would not result in new or more severe impacts related to conformity with land use plans beyond those already analyzed in the 2016 IS/MND.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2016 IS/MND was adopted leading to new or more severe significant impacts, and no new mitigation measures are required.

Conclusion

The 2016 IS/MND adequately evaluated the potential land use impacts of the proposed project. Therefore, potential impacts would be less-than-significant and additional mitigation is not required.

12. MINERAL RESOURCES

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

Discussion

The 2016 IS/MND determined that the project site does not contain any known mineral resources within or in the vicinity of the project site. As such, the proposed project would have no impact on mineral resources.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2016 IS/MND was adopted leading to new or more severe significant impacts, and no new mitigation measures are required.

Conclusion

The 2016 IS/MND adequately evaluated the mineral resources impacts of the proposed project. Therefore, potential impacts would be less-than-significant and additional mitigation is not required.

13. NOISE

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
Would the project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c. For a project located within the vicinity of a private airstrip an airport land use plan or, where such a plan has not been adopted, within 2 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?	☐	☐	☐	☒

Discussion

Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, or sleep. Several noise measurement scales exist that are used to describe noise in a particular location. A decibel (dB) is a unit of measurement that indicates the relative intensity of a sound. The 0 point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Changes of 3 dB or less are only perceptible in laboratory environments. Audible increases in noise levels generally refer to a change of 3 dB or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a 10-fold increase in acoustic energy, while 20 dB is 100 times more intense, and 30 dB is 1,000 times more intense. Each 10 dB increase in sound level is perceived as approximately a doubling of loudness.

Sound intensity is normally measured through the A-weighted sound level (dBA). This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. The A-weighted sound level is the basis for a number of various sound level metrics, including the day/night sound level (L_{dn}) and the Community Noise Equivalent Level (CNEL), both of which represent how humans are more sensitive to sound at night.[8] In addition, the equivalent continuous sound level (L_{eq}) is the average sound energy of time-varying noise over a sample period and the L_{max} is the maximum instantaneous noise level occurring over a sample period. The percentile-exceeded

[8] L_{dn} is the 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 decibels to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m. CNEL is the 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 5 decibels to sound levels occurring in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 decibels to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m. Source: Harris, Cyril M. 1998. *Handbook of Acoustical Measurement and Noise Control.*

sound level (L_x) is the sound level exceeding "x" percent of a specific time period. For example, L_{10} is the sound level exceeded 10 percent of the time.

The City of Richmond addresses noise in the Noise Element of the General Plan[9] and in the Municipal Code.[10] The Noise Element of the General Plan provides the City's goals and policies related to noise, including the land use compatibility guidelines for community exterior noise environments. The Municipal Code outlines the City's standards for and limitations on noise sources within the City. The City limits loading/unloading activities (including building materials for construction projects) to the hours of 6:00 a.m. to 9:00 p.m. if they would result in a noise disturbance across a residential real property line. The noise ordinance further stipulates that, where construction activities on a construction project which is adjacent to any noise sensitive use are anticipated to last for a year or more, temporary noise barriers shall be constructed that break the line of sight between the noise-sensitive land use and the construction project. The noise ordinance prohibits the use of pile drivers or other impulsive noise sources on Sundays and holidays, except for emergencies or as approved in advance by the Building Official. Furthermore, where technically and economically feasible, project operations as well as temporary construction activities should be conducted in such a manner so as to not exceed 60 dBA L_{max} for more than 30 minutes in any hour as measured at the nearest single-family residential property line, or exceed 65 dBA L_{max} for more than 30 minutes in any hour as measured at the nearest multi-family residential property line.

The ambient noise conditions have not changed substantially since the preparation of the 2016 IS/MND. As discussed in the 2016 IS/MND, the reject site for the WWTP projects is located at the existing WWTP at 601 Canal Boulevard in the City of Richmond and is bordered to the east by Canal Boulevard, to the west and south by Miller/Knox Regional Park, and to the north by a residential neighborhood.

Existing facilities at the WWTP include the influent pump station (IPS), sedimentation tanks, aeration basins, secondary clarifiers, chlorine tanks, sludge heaters, digesters, dissolved air flotation thickener (DAFT), administrative building, utility building and underground pipelines.

Existing noise levels in the project vicinity are dominated by traffic noise. The project site is bordered by Canal Boulevard. Noise from traffic on Interstate 580 (I-580), which is located approximately 1,800-feet north of the project site, is also audible on the project site.

According to the City of Richmond General Plan, the primary existing noise source in the City is vehicle traffic, particularly on major freeways (I-80 and I-580). Other noise sources include railroad traffic, BART, and a variety of stationary sources, such as noise generated by machinery, heating, ventilation and air conditioning (HVAC) equipment and landscape maintenance activities.

9 Richmond, City of, 2012. *Richmond General Plan 2030.*

10 Richmond, City of, 2012. *Richmond Code of Ordinances, Chapter 9.52*.

Construction-Period Impacts

As discussed in the 2016 IS/MND, short-term noise related to construction activities would temporarily increase noise levels in the vicinity of the project site. Noise impacts from construction crew commutes and the transport of construction equipment and materials to the project site would incrementally increase noise levels on access roads leading to the site. However, the construction equipment pass-by noise would be similar to existing truck activity in the project vicinity. Therefore, traffic associated with worker commute and equipment transport to the project site would be less than significant.

Construction activities would be performed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. The site preparation (excavation and grading) phase of construction tends to generate the highest noise levels, because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery, such as dozers and loaders, and compacting equipment including compactors, scrapers, and graders. The use of impact pile drivers is not expected for construction of the proposed project. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. The construction phases of the project are expected to require the use of scrapers, dozers, front-end loaders, and water and other trucks. Noise typically associated with the use of construction equipment is estimated to be between 79 and 89 dBA L_{max} at a distance of 50 feet from the operating construction equipment for the site preparation phase. Each doubling of the sound sources with equal strength increases the noise level by 3 dBA. Assuming that each piece of construction equipment operates as an individual noise source, the worst-case composite noise level during this phase of construction would be 91 dBA L_{max} at a distance of 50 feet from all of the pieces of operating equipment.

The 2016 IS/MND found that the closest off-site sensitive receivers to the proposed project construction site would be the single family residential land uses on Richmond Avenue located approximately 500 feet north of the project's northern boundary. The closest noise sensitive receptor to the south are the multi-family residential land uses on Pinnacle Court, located approximately 1,200 feet from the nearest project border with no direct line of sight due to intervening terrain features. During the construction phases of the project, as mentioned above, exterior noise levels resulting from demolition and site grading could be as high as 91 dBA L_{max} at a distance of 50 feet from all of the pieces of operating equipment. However, the 2016 IS/MND determined that due to distance attenuation and the noise reduction provided by existing terrain features, these maximum construction noise levels would be expected to be reduced to below 70 dBA L_{max} at the nearest noise sensitive land use, even if multiple pieces of heavy construction equipment operated simultaneously at the nearest project border.

The 2016 IS/MND determined that noise levels could result in exceedances of the City's noise ordinance performance thresholds. As noted previously, where technically and economically feasible, construction activity shall be conducted in such a manner so as to not exceed 60 dBA L_{max} for more than 30 minutes in any hour as measured at the nearest single-family residential property line, or exceed 65 dBA L_{max} for more than 30 minutes in any hour as measured at the nearest multi-family residential property line. Construction of a temporary sound barrier that blocks the line of

sight to the nearest off-site sensitive land uses would be expected to reduce construction noise levels by a minimum of 5 dBA. In addition, restricting the number of pieces of equipment that can operate simultaneously near the project border and the number of minutes per hour that heavy construction equipment can operate near the project border would further contribute to meeting the City's noise performance threshold. The proposed project incorporates avoidance and minimization measures to ensure that the project complies with the City's noise permanent standards of the Noise Ordinance and to ensure that no potential construction noise impacts would occur.

The types of equipment that would be used for construction of these project components would include but would not be limited to the following: asphalt pavers, compactors, water trucks, brooms and sweeping equipment, electric generators, air hammers, backhoes, loaders, excavators, cranes, sprayers and rollers, concrete mixers, concrete pumps and vibrators, graders, trucks and trailers, and welding and cutting equipment. Similar to the 2016 project, noise levels resulting from construction could be as high as 91 dBA L_{max} at a distance of 50 feet from all of the pieces of operating equipment. However, similar to the 2016 project, the closest off-site sensitive receivers to the proposed project construction site would be the single family residential land uses on Richmond Avenue located approximately 500 feet north of the project's northern boundary. As such, due to distance attenuation and the noise reduction provided by existing terrain features, these maximum construction noise levels would be expected to be reduced to below 70 dBA L_{max} at the nearest noise sensitive land use, even if multiple pieces of heavy construction equipment operated simultaneously at the nearest project border.

Therefore, impacts associated with the proposed project would be similar to those evaluated in the 2016 IS/MND. With incorporation of the avoidance and minimization measures identified in the 2016 IS/MND, the proposed project would not result in new or more severe construction-related noise impacts beyond those identified in the 2016 IS/MND.

Vibration Impacts

The 2016 IS/MND found that no permanent noise sources that would expose persons to excessive groundborne vibration or noise levels would be located within the project site. Construction activities associated with implementation of the proposed project would not result in excessive groundborne vibration or groundborne noise levels with implementation of the noise avoidance and minimization measures incorporated into the proposed project. Therefore, implementation of the proposed project would not permanently expose persons within or around the project site to excessive groundborne vibration or noise.

Similar to the 2016 IS/MND, no permanent noise sources that would expose persons to excessive groundborne vibration or noise levels would be located within the project site. In addition, construction activities associated with implementation of the proposed project would also not result in excessive groundborne vibration or groundborne noise levels with implementation of the noise avoidance and minimization measures as identified in the 2016 IS/MND. With incorporation of avoidance and minimization measures, the proposed project would not result in new or more severe vibration impacts beyond those identified in the 2016 IS/MND.

Long-Term Operational Noise Impacts

A significant impact would occur if the project would exceed established standards, including resulting in a substantial permanent increase in ambient exterior noise levels above levels existing without the project. In acoustics, every doubling of an equal sound energy would result in a 3 dBA increase in combined noise level (an increase of 3 dBA represents the lowest noise increase that is perceptible by humans outside of a laboratory environment). Implementation of the proposed project would generate an incremental increase in traffic noise on local roadways leading to the project site, as discussed below.

The 2016 IS/MND found that operation of the 2016 project would not add any additional vehicle trips per day, except for occasional trips for maintenance purposes, which would not result in a perceptible increase in traffic noise levels along any roadway segments in the project vicinity. Therefore, traffic-related operational noise generated by the 2016 project was considered less than significant.

Similar to the 2016 project, the proposed project would not add any additional vehicle trips per day, except for occasional trips for maintenance purposes, which would not result in a perceptible increase in traffic noise levels along any roadway segments in the project vicinity. Therefore, traffic-related operational noise generated by the proposed project would also be less than significant. Similar to the 2016 project, impacts would be less than significant and the proposed project would not result in new or more severe impacts related to traffic-related operational noise than identified in the 2016 IS/MND.

The 2016 IS/MND also evaluated new mechanical operational noise sources (e.g., blowers) and found that these new mechanical noise sources would be similar to existing operational noise sources at the WWTP. The 2016 IS/MND identified that the closest off-site sensitive receivers to the site would be the single family residential land uses on Richmond Avenue located approximately 500 feet north of the project's northern boundary and the closest noise sensitive receptor to the south are the multi-family residential land uses on Pinnacle Court, located approximately 1,200 feet from the nearest project border with no direct line of sight due to intervening terrain features. At this distance, due to distance divergence, the 2016 IS/MND found that noise levels from the operation of new mechanical equipment would be reduced to well below the existing ambient background noise levels, which are influenced by traffic noise on Canal Boulevard and I-580.

As discussed in Attachment A, Project Description, the cogeneration units and associated equipment would generate noise levels between 50 and 100 decibels (dB), and would be designed to not exceed 85 dBA at the project fenceline. Similar to the 2016 project, the closest off-site sensitive receivers to the site would be the single family residential land uses on Richmond Avenue located approximately 500 feet north of the project's northern boundary. Therefore, due to distance attenuation, noise levels from the operation of the cogeneration units and associated equipment would be reduced to below the existing ambient background noise levels. Therefore, as project-related mechanical equipment stationary noise sources would not exceed existing ambient noise levels at receiving sensitive land uses, this impact would be considered less than significant. Similar to the 2016 project, impacts would be less than significant and the proposed project would not

result in new or more severe impacts related to mechanical equipment operational noise than identified in the 2016 IS/MND.

Aircraft Noise Source Impacts

The 2016 IS/MND determined that the closest airport to the project area is the Oakland International Airport, located approximately 12 miles southeast of the project area and the closest private airstrip to the project area is the Brookside Hospital Heliport - 17CA, which is located in the City of San Pablo, approximately three miles east of the WWTP. Although aircraft-related noise is occasionally audible on the project site, the 2016 IS/MND found that the site does not lie within an airport land use plan area or within the 60 dBA L_{dn} noise contours of any of these public airports or private airfields. Aircraft-related noise impacts associated with the proposed project would be similar to those evaluated in the 2016 IS/MND and the proposed project would not result in new or more severe aircraft-related noise impacts beyond those identified in the 2016 IS/MND.

Applicable Mitigation

As described in the 2016 IS/MND, impacts related to noise were determined to be less than significant with incorporation of avoidance and minimization measures. No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2016 IS/MND was adopted leading to new or more severe significant impacts, and no new mitigation measures are required.

Conclusion

The 2016 IS/MND adequately evaluated the impacts of the proposed project. Therefore, potential impacts would be less-than-significant and additional mitigation is not required.

14. POPULATION AND HOUSING

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

Discussion

Similar to the 2016 project, the proposed project would improve the efficiency of the WWTP to accommodate existing wastewater flows. The project would address an existing condition and would not expand the capacity of the current systems or provide additional major infrastructure so as to encourage population growth or new development. The project would not include any new housing, commercial or industrial space and would not induce substantial population growth. The proposed project would be constructed within the existing boundaries of the WWTP and would not displace existing people or housing. Therefore, the proposed project would not result in new or more significant population growth and/or housing impacts than were analyzed and described in the 2016 IS/MND.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2016 IS/MND was adopted leading to new or more severe significant impacts, and no new mitigation measures are required.

Conclusion

The 2016 IS/MND adequately evaluated the potential population and housing impacts of the proposed project. Therefore, potential impacts would be less-than-significant and additional mitigation is not required.

15. PUBLIC SERVICES

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
Would the project:				
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?	☐	☐	☐	☒

Discussion

The 2016 IS/MND identified less-than-significant impacts related to fire or police services, schools, parks or other public facilities with development of the 2016 project. The proposed project would include the development of a new Cogeneration Facility in-lieu of the Biosolids Post-Processing Facility. Although the proposed Cogeneration Facility was not previously analyzed in the 2016 IS/MND, the proposed facility would be located within the existing boundaries of the WWTP; therefore, the general development footprint of proposed project would be similar to the 2016 project. Similar to the 2016 project, the proposed project does not include the construction of structures that would increase the population in the area or that would generate a higher demand for fire or police services, schools, parks, or other public facilities. As such, the proposed project would not result in any new significant impacts to fire, police, schools, parks, or library services beyond what was previously evaluated as part of the 2016 IS/MND.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2004 Final EIR or the 2016 IS/MND was adopted leading to new or more severe significant impacts, and no new mitigation measures are required.

Conclusion

The 2016 IS/MND adequately evaluated the potential public services impacts of the proposed project. Therefore, potential impacts would be less-than-significant and additional mitigation is not required.

16. RECREATION

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New 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?	☐	☐	☐	☒

Discussion

As discussed above in Section 15, Public Services, similar to the 2016 project evaluated in the 2016 IS/MND, the proposed project does not include the development of any housing. As such, the proposed project would not result in an increase in population and would not increase the use of existing recreational facilities nor does the project include recreational facilities.

Applicable Mitigation

Based on the analysis above, no substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2016 IS/MND was adopted leading to new or more severe significant impacts, and no new mitigation measures are required.

Conclusion

The 2016 IS/MND adequately evaluated the recreation impacts of the proposed 2016 project and there would be no new impacts related to recreation associated with the proposed project.

17. TRANSPORTATION

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
Would the project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
b. Conflict or be inconsistent with CEQA Guidelines § 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?	☐	☐	☐	☒

Discussion

The following includes a discussion of the potential impacts related to transportation associated with the proposed project as compared to the 2016 project. With respect to transportation facilities within and in the vicinity of the site, conditions are generally the same in 2019 as in 2016.

Conflict with a Program, Plan, Ordinance or Policy Addressing the Circulation System

Transit. Several transit providers operate in the City of Richmond, including Bay Area Rapid Transit (BART), Alameda-Contra Costa Transit District (AC Transit), Richmond Paratransit, and East Bay Paratransit. The nearest transit line to the WWTP project site is AC Transit line 72M, which runs along the Richmond Parkway, South Garrard Boulevard, and Macdonald Avenue.

The 2016 IS/MND determined that potential conflicts associated with transit circulation and facilities would be less than significant with implementation of Mitigation Measure TRA-1, which requires coordination with AC Transit during construction of several Critical Collection System projects and Critical Point Repair projects along local roadways (e.g., 13th and Dunn, Cutting and Carlson, MacDonald Avenue, 41st Street, Lincoln Avenue). This measure applies to the implementation of the Critical Collection System projects; and would not be necessary for construction of the Cogeneration Facility Project.

Bicyclists and Pedestrians. According to the City of Richmond Bicycle Master Plan (Fehr & Peers 2011a), a Class II Bike Lane currently exists along Canal Boulevard from Sea Cliff Drive to Cutting Boulevard. The Class II Bike Lane becomes a Class I Bike Path just beyond Sea Cliff Drive. These facilities are part of the San Francisco Bay Trail, a 500-mile multi-use route for bicycles and pedestrians around San Francisco and San Pablo Bays. Sidewalks are also located along most of Canal Boulevard. Sidewalks should remain unaffected by the construction; however, any traffic control measures would be consistent with those published in the California Joint Utility Traffic Control Manual. Therefore, impacts to bicyclists and pedestrians would remain less than significant and the proposed project would not result in new or more severe impacts related to alternative forms of transportation beyond those already identified in the 2016 IS/MND.

Roadways and Freeways. The Contra Costa Transit Authority (CCTA) has established a 100 peak hour trip threshold for requiring preparation of a traffic impact analysis. The 2016 IS/MND determined that potential traffic impacts associated with long-term operation and construction of the 2016 project would be less than significant, as described further below.

Long-Term Operational Impacts. The proposed project would include construction of a new Cogeneration Facility at the WWTP in-lieu of the Biosolids Post-Processing Facility, which was analyzed in the 2016 IS/MND. As with the 2016 project, operation of proposed improvements would be monitored by existing WWTP staff and would not generate significant additional trips compared to what exists today. Occasional trips may be required for maintenance purposes; however, this is consistent with the existing operation of the WWTP, and therefore no trips are added to the existing network due to the operation of the WWTP. Increased bio-solids disposal is anticipated to result in up to 14 additional truck trips per week for an average of two additional trips per day. These trips would occur outside of the AM and PM peak hours and would not affect intersection operation during the critical periods. Therefore, operation of the proposed project would have no impact to an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system.

Construction Impacts. The 2016 IS/MND determined that potential impacts associated with construction traffic would be less than significant because the trip generation associated with every phase of project construction would be less than 100 peak hour trips, which is lower than the threshold established by Contra Costa County guidelines. As described in the 2016 IS/MND, the highest trip generating phase of all the Facility Plan Projects is the ABC Volume Phase of the Dewatering Facility Project, which would generate 19 inbound Passenger Car Equivalent (PCE) vehicles in the AM peak hour, 19 outbound PCE vehicles in the PM peak hour, and 630 Average Daily Traffic (ADT).

Construction of the proposed project would be similar to the project evaluated in the 2016 IS/MND; however, the proposed project would result in an additional 1,383 cubic yards of off-haul material than the 2016 project. This additional off-haul would result in approximately 200 more truck roundtrips to/from the project site during the 18-month construction period. Converting truck trips to passenger car equivalent (PCE) results in 400 additional PCE. From review of the construction schedule, it appears that off-haul of material was anticipated to occur within 40 working days, resulting in an average of 10 additional PCE trips per day and a potential for up to two PCE during the peak hours, bringing the total trip generation for project construction to 21 inbound PCE vehicles in the AM peak hour and 21 outbound vehicle in the PM peak hour, and 640 ADT. Because the trip generation is less than 100 peak hour trips, the proposed project is not expected to conflict with any applicable plans, ordinances or policies addressing the traffic system. Therefore, this impact would remain less than significant and the proposed project would not result in new or more severe impacts related to construction traffic beyond those already identified in the 2016 IS/MND.

Conflict with CEQA Guidelines Section 15064.3, subdivision (b)

The City has not adopted a threshold of significance for vehicle miles traveled (VMT). The proposed project is not anticipated to induce a substantial number of new VMT. As described in the 2016 IS/MND, operation of the new facilities would remain constant with the addition of the project.

Occasional trips may be required for maintenance purposes and for increased bio-solids disposal. These trips would occur outside of the a.m. and p.m. peak hours and would not affect intersection operation during the critical periods. As such, the proposed project would not result in new or more severe impacts related to VMT beyond those already identified in the 2016 IS/MND.

Design Features

The 2016 IS/MND determined that impacts related to design features would be less than significant, given that the 2016 project would not change the existing roadway design or internal circulation routes within the WWTP site. Like the 2016 project, the proposed project would retain the existing access to the WWTP and local roadway configuration around the WWTP site. Therefore, the proposed project would not result in new or more severe impacts related to design hazards beyond those already identified in the 2016 IS/MND.

Emergency Access

The 2016 IS/MND determined that impacts related to emergency access would be less than significant, given that the proposed project would not change the existing roadway design and temporary effects due to increased construction traffic would be limited to construction and would be temporary in nature. Access to the WWTP would be retained throughout the construction period and during operation of the proposed project. Therefore, this impact would remain less than significant and the proposed project would not result in new or more severe impacts related to emergency access beyond those already identified in the 2016 IS/MND.

Applicable Mitigation

Based on the above analysis, no substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2016 IS/MND was adopted leading to new or more severe significant impacts, and no new mitigation measures are required. Mitigation Measure TRA-1, previously identified in the 2016 IS/MND, would remain applicable to the proposed project overall as it would be required during construction of the Critical System projects, but would not be required during construction of the Cogeneration Facility project. Mitigation Measure TRA-1 is as follows:

- Mitigation Measure TRA 1: The following procedures shall be implemented to continue bus service along construction routes:
    - During the construction period, bus detour routes shall be implemented in coordination with representatives from AC Transit Bus Operations and the City.
    - The contractor shall notify the AC Transit Operations Control Center at detours@actransit.org of the planned construction along affected bus routes. This information will be provided 2 months prior to implementing any detours to provide AC Transit Operations Control Center sufficient time to determine and implement the most efficient detour path.

Conclusion

The 2016 IS/MND adequately evaluated the transportation and circulation impacts of the proposed project and with implementation of Mitigation Measure TRA-1, there would be no new impacts related to traffic and circulation associated with the proposed project.

18. TRIBAL CULTURAL RESOURCES

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)? 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 Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒

Discussion

Impacts to tribal resources were not specifically evaluated in the 2016 IS/MND, as this topic was not a required component of CEQA to be analyzed at the time the 2016 IS/MND was prepared and adopted. However, impacts of the proposed project on potential archeological and human remains, which are considered both tribal and cultural resources, were evaluated and were identified as less than significant with implementation of avoidance and minimization measures incorporated into the proposed project. This topic, as it relates to tribal cultural resources, is further discussed below.

On May 16, 2016, the City of Richmond sent a letter describing the project and a map depicting the project area to the Native American organizations identified on the Native American Heritage Commission (NAHC) contacts list requesting any concerns they might have regarding the 2016 project. The results of the consultation outreach are summarized in the table below.

Table 1: Native American Tribal Consultation

Organization/ Individual	Tribal Affiliation	Date of Contact Letter Sent	Date & Medium of Follow-up Contact	Response
Irene Zweirlein, Chairperson	Amah Mutsun Tribal Band of Mission San Juan Bautista (Ohlone/Costanoan)	May 16, 2016	June 20, 2016	On May 16, 2016 Chairperson Zweirlein recommended that a Native American monitor and archaeologist be present during project ground disturbing activities and asked if a records search had been conducted at the Sonoma State clearing house.
Ann Marie Sayers, Chairperson	Indian Canyon Mutsun Band of Costanoan Indians (Ohlone/Costanoan)	May 16,2016	June 20, 2016 Phone call	During a June 20, 2016, telephone conversation, Chairperson Sayers recommended that a records search be conducted at the Sonoma State clearinghouse.
Rosemary Cambra, Chairperson	Muwekma Ohlone Indian Tribe of the San Francisco Bay Area (Ohlone/ Costanoan)	May 16, 2016	June 20, 2016 email	No response to date.
Andrew Galvan, Chairperson	Ohlone Indian Tribe (Ohlone/Costanoan, Bay Miwok, Plains Miwok, and Patwin).	May 16, 2016	June 20, 2016 email	No response to date.
Raymond Hitchcock	Chairperson, Wilton Rancheria (Miwok).	May 16, 2016	June 20, 2016 email	No response to date.

As previously discussed in Section 5, Cultural Resources, of this Environmental Checklist, implementation of avoidance and minimization measures, previously identified in the 2016 IS/MND, have been incorporated into the proposed project. These measures would protect previously unrecorded or unknown cultural resources, including Native American artifacts and human remains, should these be encountered during project construction.

Applicable Mitigation

Based on the analysis above, no substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2016 IS/MND was adopted leading to new or more severe significant impacts, and no new mitigation measures are required.

Conclusion

No new or substantially more severe effects related to tribal cultural resources would occur with the proposed project.

19. UTILITIES AND SERVICE SYSTEMS

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

Discussion

Impacts to utilities and service systems were determined to be less than significant for the proposed project. Conditions related to these services are currently the same as when the 2016 IS/MND was adopted. Impacts related to utilities and service systems are further discussed below

Construction of New or Expanded Utility Facilities

Water. The 2016 IS/MND determined that potential impacts associated with construction of new or expanded water infrastructure would be less than significant. Construction of the proposed project would require potable or reclaimed water for dust suppression. However, the amount of water required would be minimal. Operation of the proposed project would not increase the demand for water compared to the existing conditions. Therefore, the proposed project would not require the construction of new or expanded water facilities that could cause significant environmental effects. As such, impacts would remain less than significant and the proposed project would not result in any new or more significant impacts than identified in the 2016 IS/MND.

Wastewater. The WWTP provides wastewater treatment for the City. The City's operator, Veolia, would continuously operate the WWTP through the duration of construction. The proposed improvements would enable the sewer system and treatment facilities to more reliably accommodate existing peak hour wet weather flows and do not involve an expansion of capacity to accommodate new growth. The replacement of aging and failing infrastructure at the WWTP would

allow the WWTP to more reliably meet the water quality requirements in the applicable San Francisco RWQCB NPDES Permit (Order No. R2-2013-0016, NPDES No. CA0038539). Operation of the project, once completed, would be consistent with the applicable RWQCB NPDES Permit. Therefore, this impact would remain less than significant and the proposed project would not result in new or more severe impacts related to wastewater treatment requirements beyond those already identified in the 2016 IS/MND.

Stormwater. The proposed project would replace and construct new WWTP facilities on the WWTP site. Implementation of the proposed project would not result in a significant increase in impervious surfaces or an associated increase in stormwater runoff. Therefore, the proposed project would not require or result in the construction of new storm water drainage facilities or expansion of existing facilities. Therefore, this impact would remain less than significant and the proposed project would not result in new or more severe impacts related to wastewater treatment requirements beyond those already identified in the 2016 IS/MND.

Water Supply

As described above, the 2016 IS/MND determined that potential impacts associated with water supply required to serve the proposed project would be less than significant. Construction of the proposed project would require potable or reclaimed water for dust suppression. However, the amount of water required would be minimal. Operation of the proposed project would not increase the demand for water compared to the existing conditions. Therefore, sufficient water supplies would be available to serve the proposed project. As such, impacts would remain less than significant and the proposed project would not result in any new or more significant impacts than identified in the 2016 IS/MND.

Solid Waste

Development of the proposed project would generate similar levels of solid waste associated with the development of the new Cogeneration Facility compared to what was analyzed as part of the 2016 IS/MND. Development of the proposed project would result in an incremental increase in the amount of solid waste generated compared to the 2016 project. The 2016 IS/MND determined that the 2016 project would generate approximately 11,000 cubic yards of soil and 6,000 cubic yards of demolition debris, while the proposed project would generate approximately 12,000 cubic yards of soil and 7,000 cubic yards of demolition debris. The increase in solid waste generation represents an incremental increase in solid waste and would be adequately served by existing facilities. As such, the proposed project would not result in any new or significantly greater impacts than those identified in the 2016 IS/MND.

Applicable Mitigation

Based on the analysis above, no substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2016 IS/MND was adopted leading to new or more severe significant impacts, and no new mitigation measures are required.

Conclusion

The 2016 IS/MND adequately evaluated the utilities and infrastructure impacts of the proposed project and there would be no new impacts related to utilities and infrastructure associated with the proposed project.

20. WILDFIRE

	New Potentially Significant Impact	New Mitigation Required	Reduced Impact	No New 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?	☐	☐	☐	☒

Discussion

As previously discussed in Section 9 of this Environmental Checklist, Hazards and Hazardous Materials, the proposed project would be located in a highly developed urban area and is not located adjacent to wildland areas, and therefore the project is not expected to expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, the proposed project would not result in new or more severe impacts related to wildfire than were identified in the 2016 IS/MND.

Applicable Mitigation

No substantial changes in environmental circumstances have occurred for this topic, nor revisions to the project, nor new information that could not have been known at the time the 2016 IS/MND was adopted leading to new or more severe significant impacts, and no new mitigation measures are required.

Conclusion

The 2016 IS/MND adequately evaluated the potential wildfire impacts of the proposed project. Therefore, potential impacts would be less-than-significant and additional mitigation is not required.

This page intentionally left blank.

LIST OF PREPARERS

LSA Associates, Inc.
157 Park Place
Point Richmond, California 94801
Theresa Wallace, AICP, Principal-in-Charge
Shanna Guiler, AICP, Associate, Project Manager
Patty Linder, Graphics and Production
Charis Hanshaw, Document Management

5084 N. Fruit Avenue, Suite 103
Fresno, California 93711
Amy Fischer, Principal, Air Quality & Noise Specialist
Cara Carlucci, Air Quality and Noise Specialist

20 Executive Park, Suite 200
Irvine, California 92614
Arthur Black, Associate, Traffic Specialist

This page intentionally left blank.

REFERENCES

Bay Area Air Quality Management District, 2017. *Bay Area 2017 Clean Air Plan*. April 19.

BAAQMD, 2010. *Screening Tables for Air Toxics Evaluation During Construction*. May.

California Energy Commission, 2017. 2017 Integrated Energy Policy Report. California Energy Commission. Publication Number: CEC-100-2017-001-CMF.

CalFire, 2009. Contra Costa County Very High Fire Hazard Severity Zones in LRA. Available online at: http://frap.fire.ca.gov/webdata/maps/contra_costa/fhszl_map.7.pdf (accessed June 17, 2019).

LSA, 2016. CEQA Initial Study/Mitigated Negative Declaration, City of Richmond Wastewater Treatment Plant and Collection System Improvements Project, Richmond, California. December.

Questa Engineering Corp., 2013. Draft Geotechnical Investigation for the Wet Weather Storage Tank, Pump Station and Pipeline, to be located adjacent to the City of Richmond Wastewater Treatment Plant, 601 Canal Boulevard, Richmond, California.

Richmond, City of, 2012. Richmond General Plan 2030.

Richmond, City of, 2012. Richmond Code of Ordinances, Chapter 9.52.

Richmond, City of. 2016. City of Richmond Climate Action Plan. October.

State Water Resources Control Board, 2019. GeoTracker. Available online at: http://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=601+Canal+Boulevard%2C+Richmond%2C+California (accessed June 15, 2019).

This page intentionally left blank.