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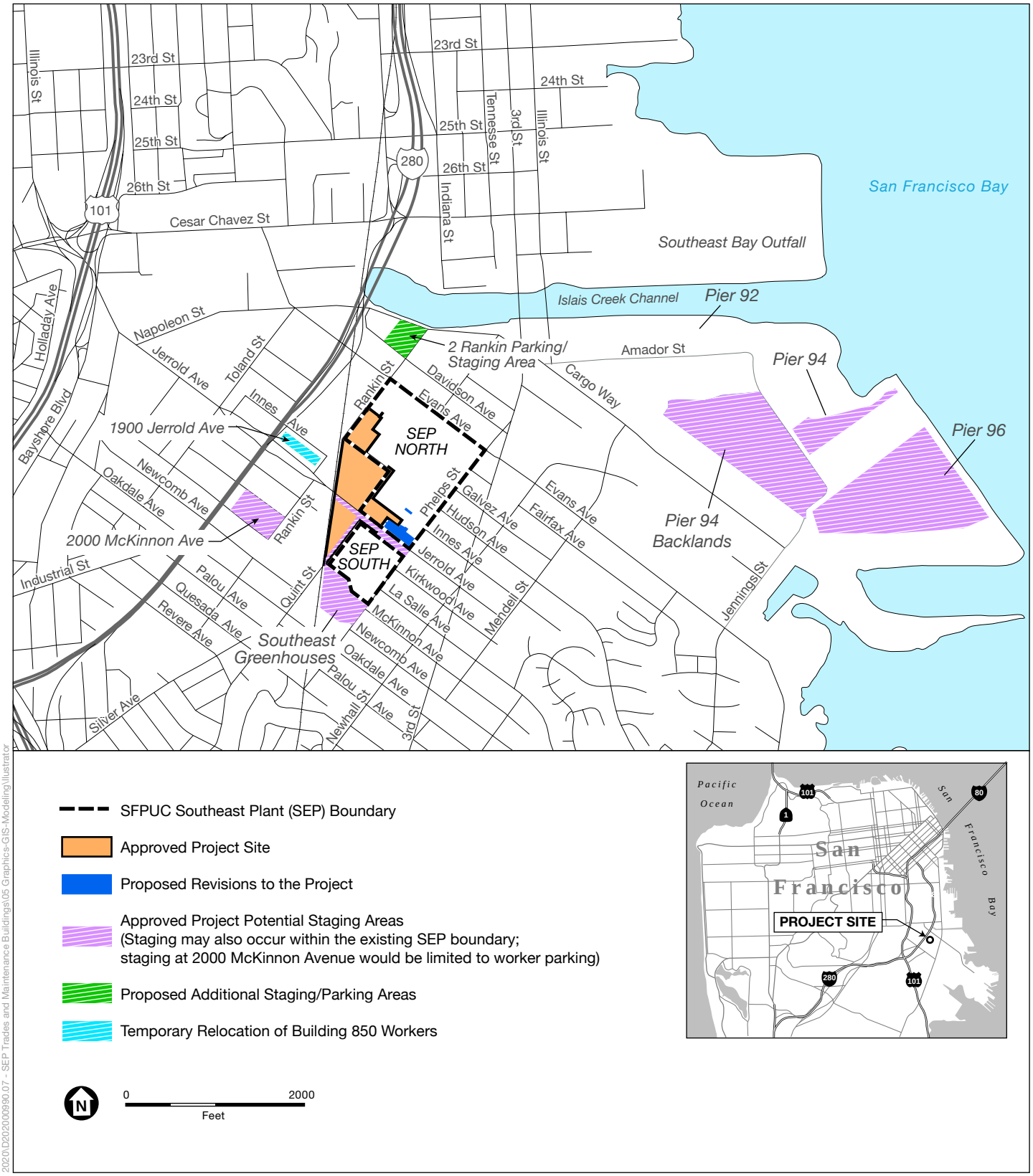
ADDENDUM 2 TO ENVIRONMENTAL IMPACT REPORT

Date of Publication of Addendum:	December 20, 2024
Date of certification of Final EIR:	March 8, 2018
EIR Case No.:	2015-000644ENV
Project Title:	Biosolids Digester Facilities Project
Project Modification:	Operations, Engineering and Maintenance Buildings
Modified Project Case No.:	2015-000644ENV-02
Project Sponsor:	San Francisco Public Utilities Commission, Kelly Yong, 415.551.4532, kyong@sfwater.org
Lead Agency:	San Francisco Planning Department
Staff Contact:	Timothy Johnston, 628.652.7536, timothy.johnston@sfgov.org

1.0 Background

On March 8, 2018, the San Francisco Planning Commission certified the Final Environmental Impact Report (FEIR) for the Biosolids Digester Facilities Project (Biosolids project or approved project) at the Southeast Water Pollution Control Plant (Southeast Plant), located in the southeast part of San Francisco (**Figure 1**).[1] Originally built in 1952 with major upgrades in 1982 and 1996, the Southeast Plant is the City and County of San Francisco's (City's) largest wastewater treatment facility, treating approximately 80 percent of San Francisco's sewage and stormwater flows. The approved project includes the construction and operation of a new solids treatment process, odor control, energy recovery, and associated facilities to replace outdated existing facilities with more reliable, efficient, and modern technologies. Biosolids are the recyclable solid materials removed from the wastewater during the wastewater treatment process and digesters are the major facility used in the solids treatment process.

[1] San Francisco Planning Department, *Biosolids Digester Facilities Project Final Environmental Impact Report*, Planning Department Case No. 2015-000644ENV, State Clearinghouse No. 2015062073 certified March 8, 2018. Available online at: http://tinyurl.com/BDFPFEIR.



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SOURCE: San Francisco Public Works 2005 GIS data; ESA+Orion, data developed in 2016 for BDFP

Operations, Engineering, and Maintenance Buildings

Figure 1
Project Location

2.0 Approved Project Summary and Status

This section provides a brief overview of the project evaluated in the FEIR, the status of facilities construction, and minor modifications made to the approved project since the FEIR was certified.

2.1 Components

The key components of the approved project include the following:

- Replacement and relocation of the solids processing treatment processes with new facilities,
- Energy recovery facilities to reuse the digester gas generated by the proposed solids processing facilities,
- Odor control facilities to collect and treat odors from solids handling and energy recovery facilities,
- Water systems and pump stations,
- Support facilities such as buildings for operations and maintenance staff,
- Various utility piping and electrical facilities, and
- Landscaping and architectural improvements.

2.2 Status

Construction of the approved project began in early January 2020 and is entering the sixth year of construction. All the buildings at the former Asphalt Plant and the Central Shops have been demolished; the majority of soil excavation and off hauling has been completed; foundations for most new facilities (including piles) have been installed; and the new biosolids digester facilities are partially constructed. The largest facilities, including the new solids pretreatment facility (Facility 600) and five new anaerobic digester tanks (Facility 610), along with the iron chloride storage tanks (Facility 913), and W2 pump station (Facility 921) have been erected with mostly internal work to be completed such as, but not limited to, installing stairs and elevators, mechanical equipment, heating, ventilation, and air conditioning (HVAC) equipment, plumbing, equipment installation, and architectural finishes. The remaining buildings to be erected above ground level (the foundations, including excavation and piles are complete) are the smaller digestion cooling towers (Facility 604), thermal hydrolysis (Facility 605), solids odor control (Facility 606), steam generation (Facility 607) and biosolids dewatering (Facility 615) with forming/rebar, concrete pours, and other building activities, and that will then be followed by internal work. Also continuing are excavation and installation of utility piping throughout the approved project area. As new facilities are completed there will be process testing, commissioning, and startup and integration with existing facilities.

Since FEIR certification, the San Francisco Public Utilities Commission (SFPUC) has approved multiple minor changes to the approved project such as: additional dewatering wells; geotechnical potholes and test piles; a rerouted pipeline; additional work, staging, and parking areas (and the removal of other staging areas); alternative effective air quality mitigation; removal of Maintenance Shops 1 and 2; reducing the size of the Odor Control Building and adding new Steam Generation Facility; and adding an Interim Sidestream Nutrient Removal Facility to reduce nutrients (mainly nitrogen) from treated effluent to improve effluent water quality. The San Francisco Planning Department determined that these minor project modifications were not substantial and that they would clearly not alter the FEIR conclusions, and then documented these determinations in memoranda added to the case file. These previously reviewed minor project

modifications, summarized in Section 4.1 below, were each approved by the SFPUC after California Environmental Quality Act (CEQA) review by the San Francisco Planning Department. As such, they are now considered to be part of the approved project and are discussed in this addendum where relevant.

The approved project also includes construction and operation of the biogas utilization system instead of the originally proposed energy recovery facilities and related changes to operational energy demand and supply, that were evaluated in addendum 1 to the FEIR.[2] The San Francisco Planning Department determined that these changes would not alter the FEIR conclusions.

The approved project also includes an additional 1.5 years of construction, for a total of 6.5 years, from January 2020 through July 2026, followed by two years of performance testing, start-up, and commissioning, as described in addendum 1.

3.0 Proposed Modifications to Project

The SFPUC proposes to revise the approved project to construct an Operations, Engineering, and Maintenance building; a Mechanical Maintenance building; and a new utility enclosure at the Southeast Plant (the operations, engineering, and maintenance buildings or the "proposed modifications"). The proposed modifications would be located southeast of the originally approved location for the Maintenance Shops 1 and 2 and adjacent to, but outside of, the approved project site. The proposed modifications would support operations and maintenance activities and replace the current function of building SEP 850, and of the temporary pre-fabricated trailers (referred to as buildings "SEP 850A" and "SEP 850B"). As noted in addendum 1, the SFPUC will not demolish building SEP 870 as was planned in the original project and later modified,[3] and instead would demolish building SEP 850, the SEP 850A and SEP 850B trailers, and the adjacent surface parking lot. Activities currently performed in the existing building SEP 850 and trailers would be temporarily relocated during construction. Temporary construction staging would occur along Jerrold Avenue northwest of Phelps Street, where the road is already currently closed for construction, and within the Southeast Plant. The approved project, inclusive of these proposed modifications, is referred to as the "modified project."

3.1 Project Setting

The Southeast Plant is located at 750 Phelps Street and currently occupies approximately 50 acres bounded by Evans Avenue to the northeast, Rankin Street to the northwest, Phelps Street to the southeast, and the Caltrain railroad tracks and a freight rail spur to the west (see **Figure 2**). Jerrold Avenue bisects the Southeast Plant, dividing it into "Southeast Plant North" (i.e., facilities north of Jerrold Avenue) and "Southeast Plant South" (facilities south of Jerrold Avenue). Facilities in Southeast Plant North are currently associated with processing the liquids portion of the wastewater. Facilities in Southeast Plant South are currently associated with processing the solids portion of the wastewater and include the existing digesters, solids loadout, and energy recovery facilities; however, once construction of the approved project is

[2] San Francisco Planning Department, Addendum 1 to Environmental Impact Report, Biosolids Digester Facilities Project, Biogas Utilization System, July 12, 2024. Available at: https://sfplanning.org/environmental-review-documents.

[3] SFPUC Biosolids Digester Facilities Minor Project Modification 10 – Modified Facilities, reviewed by San Francisco Planning Department February 2, 2021.

SOURCE: Google Maps 2023; ESA, 2023

Operations, Engineering, and Maintenance Buildings

Figure 2
Southeast Plant Overview and Project Site

complete, solids processing and biogas utilization system facilities would also be located in Southeast Plant North near the Caltrain railroad tracks and the intersection of Jerrold Avenue and Quint Street.

Located within San Francisco's Bayview-Hunters Point community, the Southeast Plant is surrounded by a mix of residential, commercial, and light- and heavy-industrial uses. Residential and commercial uses are located across Phelps Street from the Southeast Plant, with the nearest residence located approximately 500 feet from the approved project site boundary, on Phelps Street and Kirkwood Avenue.

The approximately 1.2-acre site of the proposed operations, engineering and maintenance buildings includes areas located within Southeast Plant North but outside of the 14-acre approved project site. The proposed modifications would expand the project site to the southeast and increase the total size of the project site from 14 to 15.2 acres. With this expansion, the modified project site boundary would be located approximately 250 feet from the nearest residences along Phelps Street and Kirkwood Avenue.

Since approval of the project, the 23 Monterey bus line was permanently rerouted to the proposed alignment shown in FEIR Figure 4.6-3. The 23 Monterey bus no longer passes through the project vicinity on Jerrold Avenue.

3.2 Existing Facilities

The operations, engineering and maintenance buildings site currently contains existing building SEP 850, which is a one- to two-story building that is 30 feet tall at its tallest point (15 feet tall on the single-story portion), two temporary pre-fabricated trailers (SEP 850A and SEP 850B), and an adjacent surface parking lot. The proposed modifications would also require temporary use of existing building SEP 870, a one-story 20-foot-tall building, and the associated parking area for temporary shower trailers. The site also contains stormwater collection facilities that route stormwater runoff to plant influent or primary clarifiers for treatment. Approximately 35 landscape trees, including four trees that have been mapped as "significant tree"[4] consistent with article 16 of the San Francisco Public Works Code, are present within the site.[5] An existing circular parking lot at the corner of Jerrold Avenue and Phelps Street contains 16 vehicle spaces, with access from Jerrold Avenue. Access to Southeast Plant North is provided via Jerrold Avenue, past the temporary construction site security check-in, approximately 370 feet northwest of the intersection of Jerrold Avenue and Phelps Street.

3.3 Description of the Proposed Modifications

The proposed modifications to the approved project evaluated in this addendum include: demolition of the existing building SEP 850; removal of the temporary pre-fabricated trailers SEP 850A and SEP 850B and the adjacent surface parking lot; demolition of the existing emergency backup generator, an existing transformer, and related electrical equipment (SEP 990); construction of the Mechanical Maintenance building (SEP 603), the Operations, Engineering, and Maintenance building (SEP 914), and a utility enclosure for a new chiller; and installation of two new boilers located inside building SEP 930 to service both buildings SEP 930 and SEP 940. Two new emergency generators and an associated upgraded transformer

[4] A significant tree is defined in San Francisco Public Works Code Chapter 16, Section 810A as any tree that is on property under the jurisdiction of the Department of Public Works or is on privately-owned property and within ten feet of the public right-of way, which meets at least one of the following size criteria: height greater than 20 feet; canopy width greater than 15 feet; and trunk diameter at breast height (dbh) greater than 12 inches.

[5] San Francisco Planning Department, Biosolids Digester Facilities Project Final Environmental Impact Report Appendix BIO, Planning Department Case No. 2015-000644ENV, State Clearinghouse No. 2015062073 certified March 8, 2018.

and electrical panel (SEP 990) as shown on **Figures 3 and 4** would be constructed and installed for use by proposed buildings SEP 603 and SEP 914.

The proposed Mechanical Maintenance building (SEP 603) would house maintenance bays, tool storage, office space and associated maintenance equipment. The approximately 8,400-square-foot, 33-foot-tall two-story building (including mezzanine) would be located at the corner of Jerrold Avenue and Phelps Street and would be accessed from Jerrold Avenue. To be consistent with San Francisco's Green Building Code, the SFPUC would install approximately 2,500 square feet of solar panels on the roof of SEP 603.

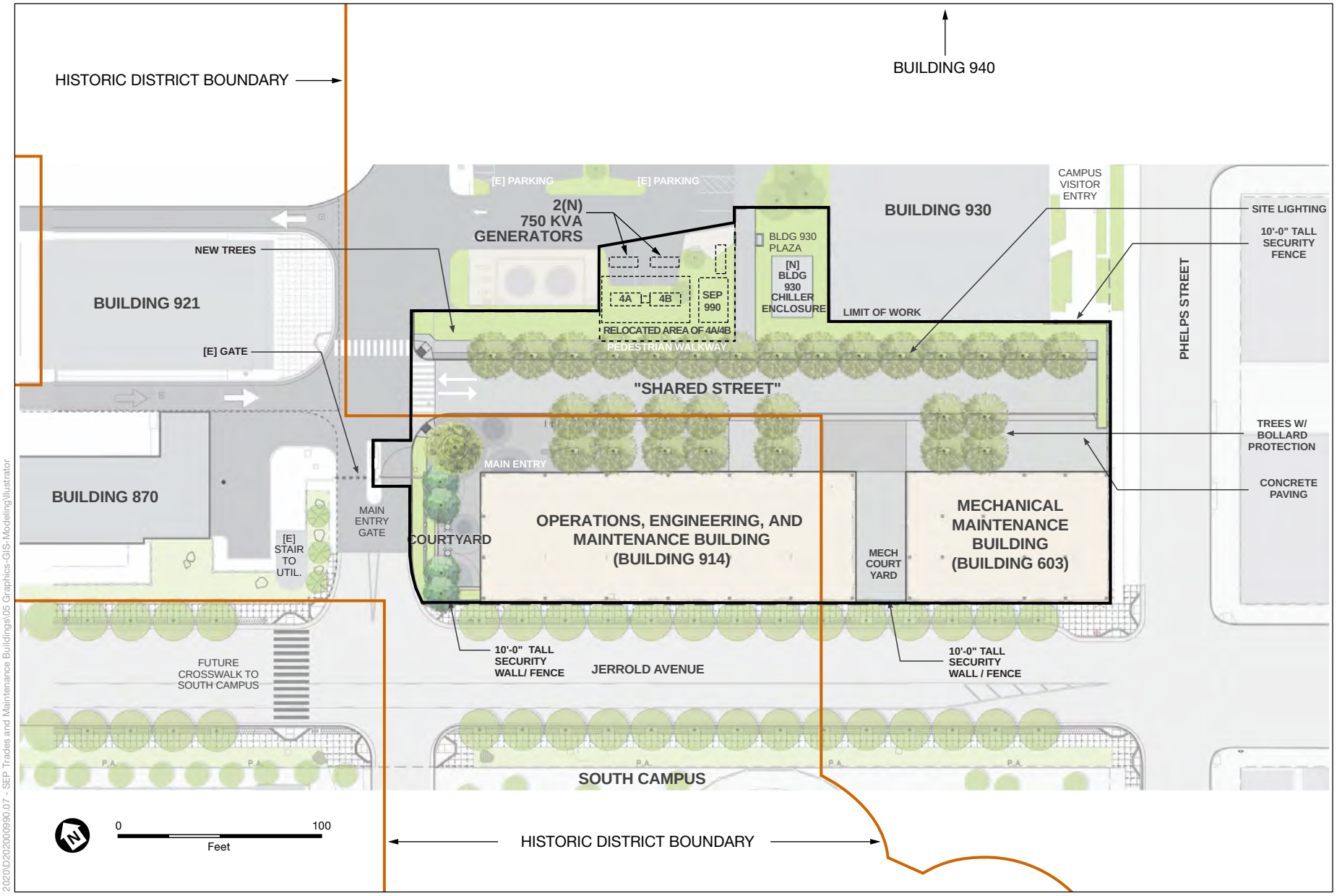
The proposed Operations, Engineering, and Maintenance building (SEP 914) would house carpenter, plumbing, and paint shops; offices, conference rooms, and break room; tool and paint storage; showers, lockers, and a wellness room; and records storage. The approximately 35,600-square-foot, 48.5-foot-tall, three-story building would be located along Jerrold Avenue between the proposed Mechanical Maintenance building and existing access to the Southeast Plant along Jerrold Avenue, southeast of existing building SEP 870. Consistent with San Francisco's Green Building Code, approximately 4,300 square feet of solar panels would be installed on the roof of SEP 914.

The demolition of building SEP 850, shown in **Figure 5**, would require the relocation and replacement of existing utilities. The existing gas boilers and chiller serving existing buildings SEP 850, SEP 930 and SEP 940 would be relocated and replaced. SEP 914 and SEP 603 would be served by an upgraded electrical transformer, three new electric boilers and an electric chiller. SEP 930 and 940 would be served by two smaller, more efficient gas boilers. A new utility enclosure to house the new chiller, measuring approximately 600 square feet and 6 feet tall, would be installed northeast of the proposed operations, engineering and maintenance buildings and west of the existing building SEP 930. The two new boilers would be located inside building SEP 930. Additionally, an existing 500 kVA[6] emergency backup generator and existing electrical equipment (SS 4A/4B and SEP 990) would be replaced with two new 750 kVA generators and electrical equipment (SS 4A/4B and SEP 990) next to the new chiller enclosure. The two new generators would have Tier 3 control technology.

Prior to demolition, the SFPUC would temporarily relocate the building occupants and uses within buildings SEP 850, SEP 850A, and SEP 850B to 1900 Jerrold Avenue. Temporary parking would be arranged near 1900 Jerrold Avenue, or previously approved staging areas such as 2000 McKinnon Avenue and 1811 Jerrold Avenue. Temporary showers would be placed adjacent to building SEP 870 with temporary lockers staged within the interior of building SEP 870. Trenching would be required to connect the temporary trailers (in particular, shower trailers) to potable water utilities, as shown in **Figures 5 and 6**. Construction management staff for the project would be located at the existing Headworks trailers, located north of the project site within the Southeast Plant's boundary.

Other improvements proposed at the operations, engineering and maintenance buildings site include an interior road for internal employee circulation and fire truck access, fencing, interior sidewalks, outdoor seating, and site lighting. The project proposes an approximately 23-foot-wide, 333-foot-long, dead-end

[6] Kilo volt amperes, which is the apparent power or actual power drawn from a power source.



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SOURCE: Sage Consultion Engineers, Inc., 2024

Operations, Engineering, and Maintenance Buildings

Figure 3
Landscape Concept Plan

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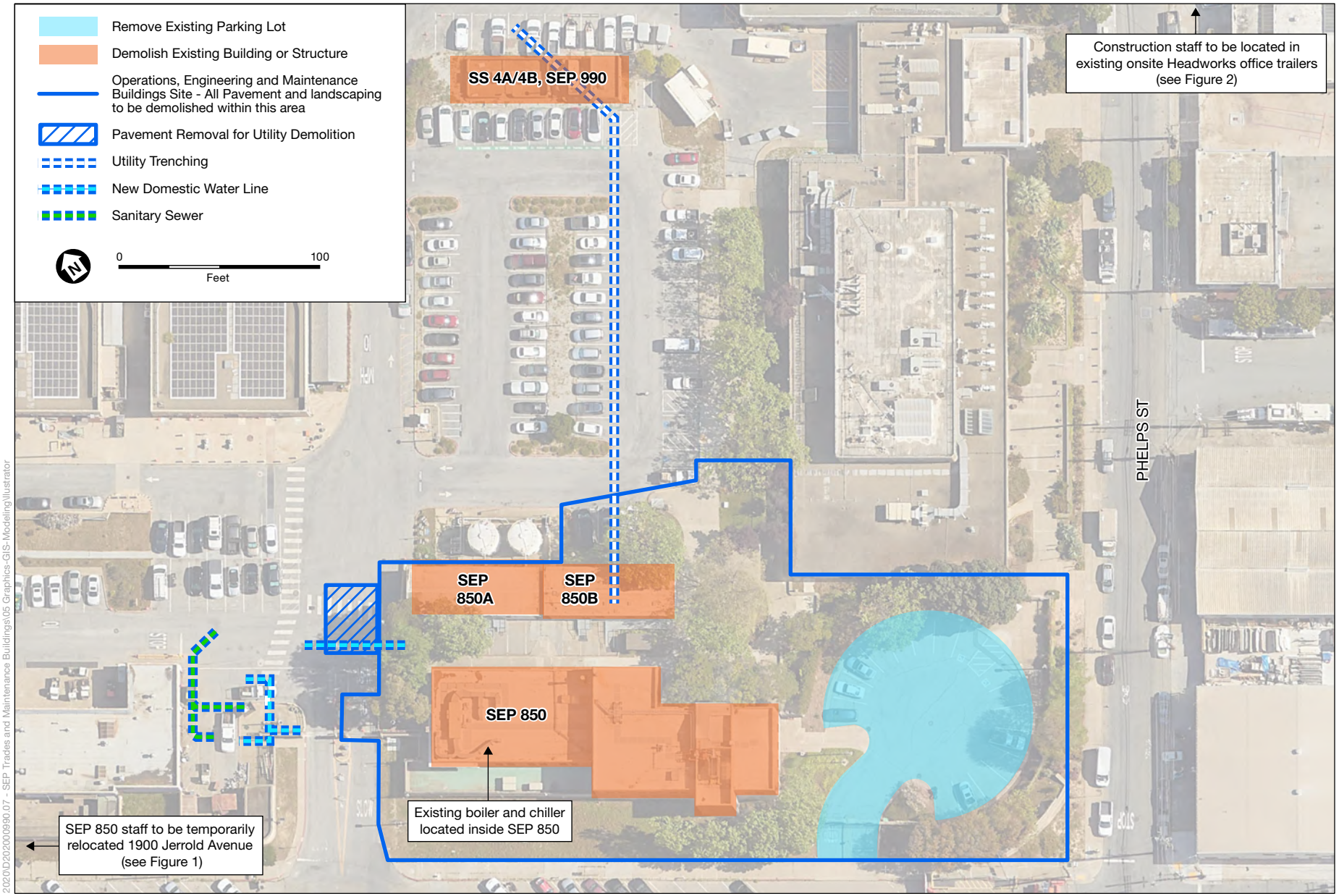
SOURCE: San Francisco Public Works, 2024

Operations, Engineering, and Maintenance Buildings

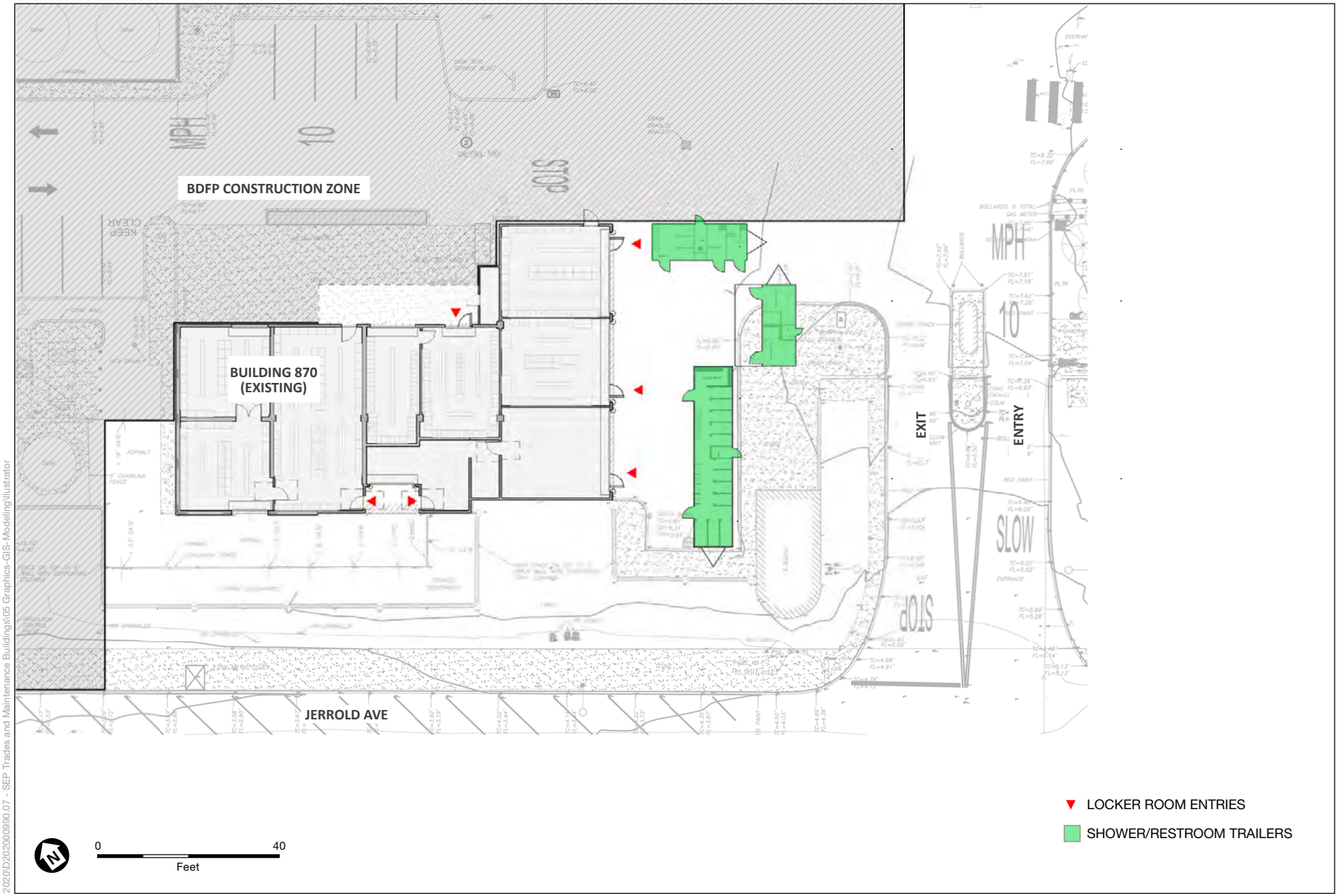
Figure 4
Southeast Plant Operations, Engineering and Maintenance Buildings Conceptual Design (Facing North)



SOURCE: ESA, 2023; Google Maps, 2023

Operations, Engineering, and Maintenance Buildings

Figure 5
Conceptual Demolition Plan



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SOURCE: San Francisco Public Works, 2023

SEP Trades and Maintenance Buildings

Figure 6
Interim Use of Building 870 and Temporary Trailers

ESA

road for internal employee circulation and access and required fire apparatus access to proposed buildings SEP 914 and SEP 603. A 10-foot-tall security fence or wall would be constructed along the Jerrold Avenue and Phelps Street boundaries in front of the modified project site. Permanent lighting would be installed primarily inside of the buildings, with exterior lighting at entrances and low-level landscaping lighting for paths of travel. New landscaping including approximately 35 new trees would be planted.

The SFPUC would connect the new operations, engineering and maintenance buildings to existing and proposed utilities, including natural gas, electricity, water, and sanitary sewer lines. This would include installing electrical conduit in the existing parking lot west of building SEP 930 and replacing an existing transformer within Southeast Plant North. Future runoff from the paved areas and new structures would be routed to the existing stormwater collection facilities at the site, or to new landscaped areas designed for stormwater infiltration that may be required for the modified project to comply with applicable regulations. The existing Southeast Plant potable water distribution system would be extended to serve the facilities.

The proposed buildings have been designed to meet the code requirements for Leadership in Energy and Environmental Design (LEED) Gold through various features, including water saving fixtures, solar panels, occupancy sensors, and energy saving materials.

3.4 Modified Project Construction

Construction of the approved project is estimated to last approximately 6.5 years. Approved project construction began in 2020. Construction of the proposed modifications would extend construction by an additional year through 2027 as shown in **Table 1**.

Table 1 Construction Schedule Overview

Activity	FEIR Table 2-10 Estimated Schedule	Estimated Schedule	Facilities in Construction
Biosolids Digester Facilities Construction	February 2018 – January 2023 (5 years)	January 2020 - September 2027 (approximately 7.5 years)	• Approved project facilities (ongoing) • Approved Interim Sidestream Nutrient Removal Facility (February 2025 to December 2025) • Approved Biogas Utilization System (April 2025 to January 2027) • Proposed Operations, Engineering, and Maintenance Buildings (February 2025 to September 2027)
Post-Construction Activities (performance testing/start-up, full facility commissioning)	February 2023 - July 2025 (2.5 years)	August 2026 – Summer 2028 (2 years)	None
Existing Digesters Decommissioning[7]	After 2025	After 2028	None

[7] Per the FEIR, potential demolition of the existing digesters and the solids handling facilities would be evaluated as a separate project when future uses of the site are proposed.

For most of the construction period, construction activities at the project site would occur Monday through Friday from 7 a.m. to 4:30 p.m., and at times until 8 p.m. as needed. Construction could also occur on Saturdays and Sundays when needed. Work would occur on holidays and 24 hours per day only if needed for critical facility connections, similar to the approved project.

Construction Staging, Worker Parking, Truck and Delivery Access, and Temporary Relocation of Muni Route. The approved project would require up to 12 acres of total construction staging area in addition to the project site itself. The approved project identified potential construction staging areas shown on Figure 1, along with staging within the Southeast Plant boundary and the closed portion of Jerrold Avenue to Phelps Street. The modified project would add temporary parking, in an area large enough for approximately 90 construction worker vehicles, at 2 Rankin Street (area shown in green on Figure 1).

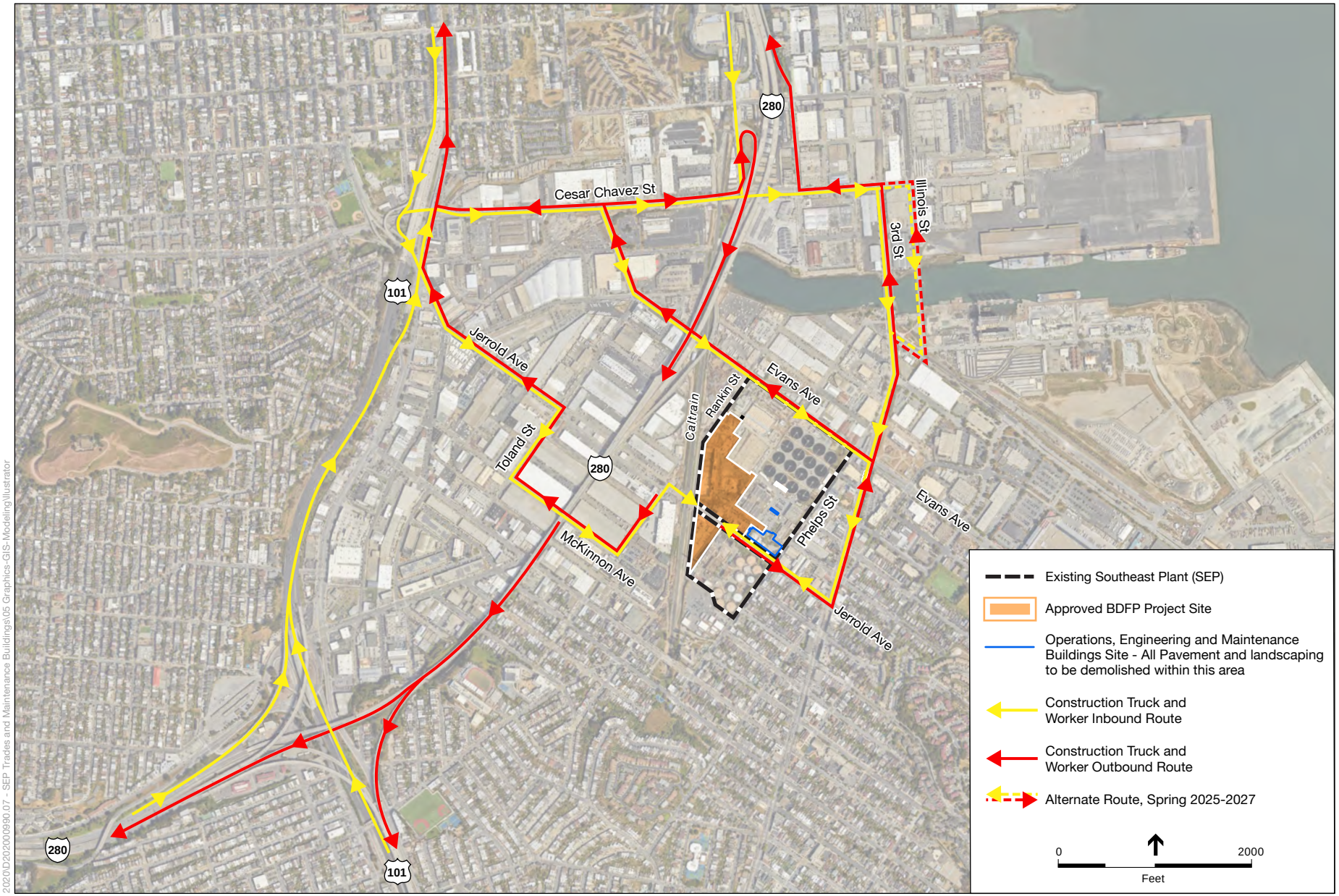
Construction trucks and workers would use the inbound and outbound routes shown on **Figure 7** to access the modified project site, instead of the routes shown in FEIR Figure 2-15. Interim truck delivery and off-haul routes for ongoing operations at the Southeast Plant would be the same as shown in FEIR Figure 2-16. Construction staging for the proposed modifications would be located within the Southeast Plant and along Jerrold Avenue as shown on **Figure 8**.

Construction Equipment. Equipment similar to that listed in the FEIR would be used during construction of the proposed modifications, as shown in **Appendix D**.

Demolition of Existing Structures. The approved project intended to demolish about 132,200 square feet of existing buildings and structures within the project site. With the proposed modifications, the SFPUC would demolish and dispose of the existing building SEP 850, two temporary pre-fabricated trailers (SEP 850A and SEP 850B), the adjacent surface parking lot, and the existing emergency generator and associated electrical equipment (SS 4A/4B, SEP 990), as shown on Figure 5. This would result in an additional 15,270 square feet of demolition, for a total of approximately 147,470 square feet of demolition for the modified project. Approximately 35 additional trees would be removed. As part of the proposed modifications, some of the existing underground utility lines from building SEP 850 to building SEP 930 would be intercepted and tied into the new buildings. Portions of existing utility lines not needed for the proposed modifications would also be capped, cut, and abandoned in place.

Site Preparation. The approved project proposed to excavate to depths of approximately 41 feet below ground surface at the digesters location within the approved project site, and several other facilities required excavation to depths of 25 to 30 feet below ground surface. Permanent secant pile wall piles were proposed to be installed to depths of 75 feet below ground surface within the approved project site, and temporary sheet piles were also proposed within the approved project site. Some utility relocation and groundwater dewatering were also proposed during construction of the approved project. With the proposed modifications, the modified project would excavate to depths of approximately 10 feet below ground surface in areas outside of the approved project site. Foundations for the new buildings would be drilled or auger cast 40- to 60-foot-deep piles below a 4-foot-deep concrete slab.

The approved project was expected to result in a total of 184,812 cubic yards of soil to be hauled offsite. The proposed modifications would excavate up to 21,455 cubic yards of soil, including potentially contaminated soil that could be removed from the site, for a total of 206,267 cubic yards of excavation for the modified project. The approved maximum excavation depths would not change. Excavated soil would be reused as backfill for the modified project as needed if it meets design specifications based on testing results;



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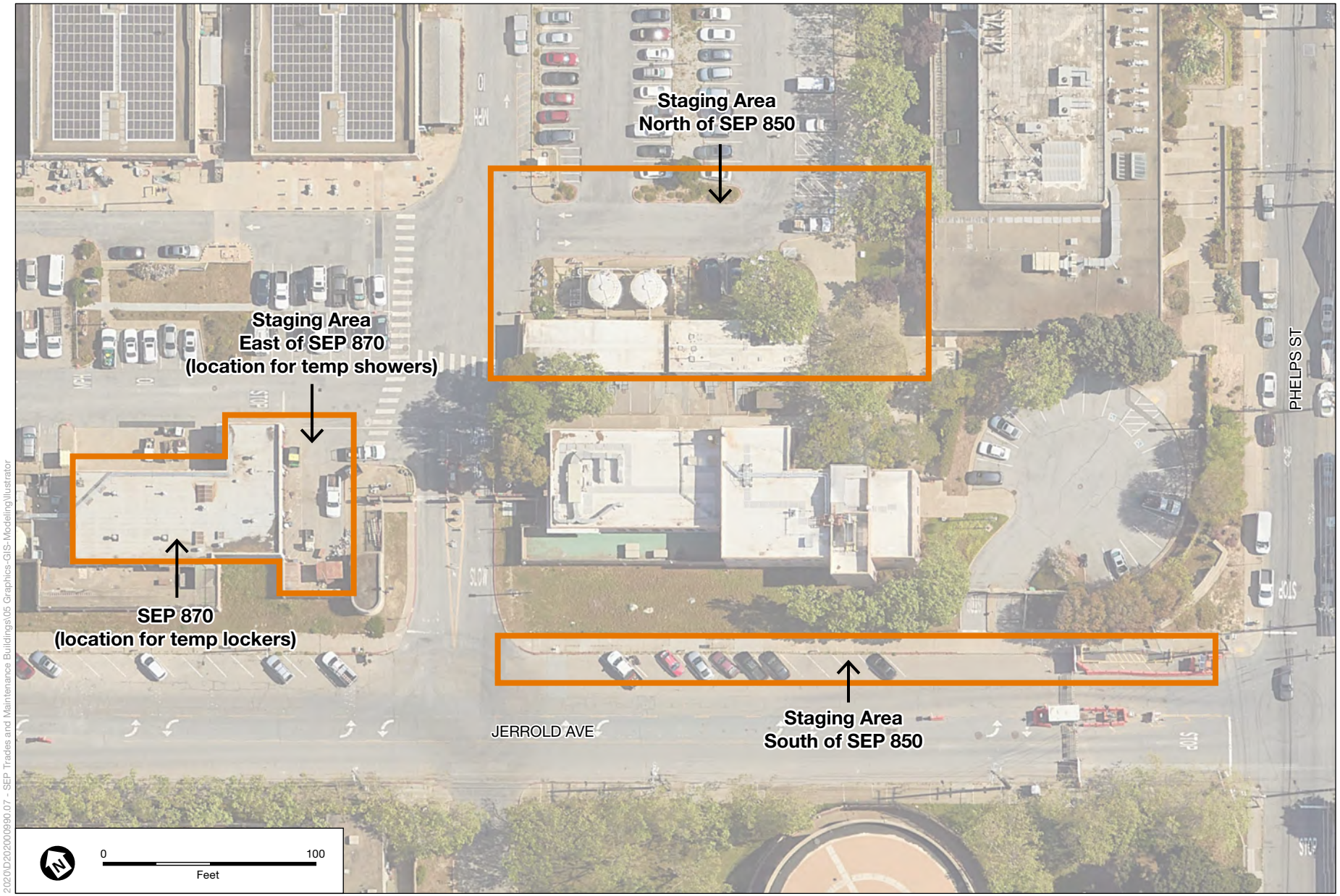
SOURCE: Google Maps 2023; ESA, 2023

Operations, Engineering, and Maintenance Buildings

Figure 7
New Truck Haul Routes



SOURCE: ESA, 2023; Google Maps, 2023

Operations, Engineering, and Maintenance Buildings

Figure 8
Staging Areas for the Operations, Trade and Maintenance Buildings

otherwise, the soil would be properly disposed of offsite in accordance with all applicable local, state, and federal regulations governing solid waste disposal. Contaminated and uncontaminated soil and demolition debris would be hauled and transferred to the same sites identified for the approved project (Recology Hay Road Landfill, Altamont Landfill, Republic Ox Mountain Landfill, or East Carbon Development Corporation Landfill in Utah).

Facility Construction. The proposed modifications would be constructed using the same standard techniques identified for most of the approved project facilities. After demolition and site grading, the SFPUC would construct the Mechanical Maintenance building (building SEP 603) and the Operations, Engineering, and Maintenance building (building SEP 914), and utility enclosure, and install the new boilers, generators and associated electrical equipment for use by proposed buildings SEP 603 and SEP 914. Once building and security fence construction is complete, the internal road and sidewalks would be placed. Landscaping would be planted as shown in the conceptual plan on Figure 3.

3.5 Modified Project Operations

The proposed operations, engineering, and maintenance buildings would support operations and maintenance activities at the Southeast Plant, including the maintenance of treatment equipment, same as described for Maintenance Shops 1 and 2 under the approved project. The buildings would provide equipment repair areas, parts storage, and staff facilities.

Operational Energy Needs. The FEIR estimated that the annual energy demand for the solids treatment process at the Southeast Plant would be approximately 4.9 megawatts in 2045, which included energy demand for associated operations, maintenance and support facilities. The annual energy demand of the approved project would be approximately 6.6 megawatts in 2045. Overall, the SFPUC would provide most of the electricity to the Southeast Plant, except for PG&E power that may be used for the biogas utilization system, as discussed in addendum 1 to the FEIR.[8] The proposed operations, engineering and maintenance buildings would be designed to comply with LEED Gold standards, would include solar panels, and would use approximately 0.60 megawatt annually (0.48 megawatt with the inclusion of the proposed rooftop solar generation). With the proposed modifications, the annual operational energy needs of the Southeast Plant would be up to 7.2 megawatts. The additional energy for the new operations, engineering, and maintenance buildings would be provided by hydroelectric power from SFPUC sources.

Other Southeast Plant Operations. As with the approved project, the modified project would not result in changes to the overall treatment capacity of the Southeast Plant. The SFPUC does not propose to increase the existing operations staff levels (about 280 people for the entire Southeast Plant) as part of the modified project. Once the modified project is operational, on-site parking for employees at the Southeast Plant would be the same as for the approved project. Operational truck routes, and chemical storage, use, and handling would be the same as described in the FEIR for the approved project. The proposed modifications would not affect the existing overall capacity of the Southeast Plant for wastewater treatment; the overall treatment methods and in turn chemical storage, use, handling and associated truck trips and routes; the amount of digester gas generated; or the amount of biosolids generated and the associated number of hauled trucks and routes. Lastly, the long-term streetscape and landscape improvements along Jerrold Avenue from the approved project would still be implemented under the modified project.

[8] San Francisco Environmental Planning, Biosolids Digester Facilities Project Addendum 1 to Environmental Impact Report, July 12, 2024.

3.6 Approvals

This addendum evaluates the potential environmental effects of the modified project described above and will be used to support the following public agency approvals:

- San Francisco Public Utilities Commission: consideration of approval of the proposed modifications at a public hearing.
- Bay Area Air Quality Management District: Authority to Construct and Permit to Operate

4.0 CEQA Approach

San Francisco Administrative Code section 31.19(C)(1) states that a modified project must be reevaluated, and that "If, on the basis of such reevaluation, the Environmental Review Officer determines, based on the requirements of CEQA, that no additional environmental review is necessary, this determination and the reasons therefore shall be noted in writing in the case record, and no further evaluation shall be required by this Chapter." CEQA Guidelines section 15164 provides for the use of an addendum to document the basis for a lead agency's decision not to require a subsequent EIR for a project that is already adequately covered in a previously certified EIR. An addendum to a certified FEIR may be prepared if some changes or additions are necessary but none of the conditions described in CEQA Guidelines section 15162 calling for the preparation of a subsequent FEIR have occurred.

This addendum to the FEIR evaluates the potential environmental effects of the proposed modifications to the Biosolids Digester Facilities Project (i.e., the construction of the operations, engineering and maintenance buildings and associated development). As defined previously, the Biosolids Digesters Facilities Project, inclusive of the proposed modifications (the "modified project"), is compared to the impacts of the "approved project" as disclosed in the FEIR (and in the subsequently approved minor project modifications and addendum 1), and explains why the modified project would not result in any new significant environmental impacts or a substantial increase in the severity of previously identified environmental impacts, and would therefore not require the adoption of any new or considerably different mitigation measures.

Since certification of the FEIR and issuance of addendum 1, the approved project and the circumstances under which the approved project would be completed have changed. These changes include the following: 1) modifications to the project described in the certified FEIR; 2) new information regarding cumulative projects proposed in the vicinity; and 3) changes in the existing conditions regarding health risks from air pollution sources due to an updated citywide health risk assessment. These changes are described further in the subsections below. As analyzed in this addendum, the modified project combined with these changed circumstances would not materially change any of the analyses or conclusions of the certified FEIR.

4.1 Approved Project Modifications

As described in Section 2.2 above, since FEIR certification, the SFPUC has approved multiple changes to the approved project, such as the following: additional dewatering wells; geotechnical potholes and test piles; a rerouted pipeline; additional work, staging, and parking areas (and the removal of other staging areas); alternative effective air quality mitigation; removal of Maintenance Shops 1 and 2; reducing the size of the Odor Control Building and adding new Steam Generation Facility; adding an Interim Sidestream Nutrient

Removal Facility to reduce nutrients (mainly nitrogen) from treated effluent to improve effluent water quality; and revising the approved energy recovery/cogeneration facility to a biogas utilization system to convert the digester gas into renewable natural gas. The San Francisco Planning Department determined that these project modifications were not substantial, given that they would clearly not alter the FEIR conclusions (as documented in memoranda to the case file and in addendum 1 to the FEIR). **Table 2** summarizes the approved project inclusive of the project modifications to date and the proposed modifications analyzed in this addendum.

Table 2 Summary of Approved Project and Modified Project

Feature	Approved Project		Modified Project
	FEIR Project[9]	Previously Approved Project Changes[10]	
Property Size of the Southeast Plant	Approximately 47 acres	No change	No change
Design Wastewater Flow Capacity of the Southeast Plant	250 mgd[11] (wet weather)	No change	No change
Digester Tanks	85 mgd (dry weather design average)	No change	No change
Solids Treatment Process	• Thickening • Screening • Pre-Thermal Hydrolysis Process Dewatering • Thermal Hydrolysis Process • Anaerobic Digestion • Biosolids Dewatering	Same as FEIR project with addition of: • Steam generation facility with boilers operating full time[12] • Interim Sidestream Nutrient Removal[13]	No change
Biosolids	Classification: Class A Exceptional Quality Annual Production: 24,000 dry tons Haul Trips: 10-14 trips per day	No change	No change

[9] The project described in the original certified Biosolids Digester Facilities Project EIR.

[10] Previously approved project changes consisting of minor modifications to the original project in the FEIR, as reviewed by the San Francisco Planning Department and approved by the SFPUC, and the biogas utilization system (San Francisco Planning Department, Addendum 1 to Environmental Impact Report, Biosolids Digester Facilities Project, Biogas Utilization System, July 12, 2024).

[11] Million gallons per day (mgd)

[12] SFPUC Biosolids Digester Facilities Project Minor Project Modification 10 – Modified Facilities, reviewed by San Francisco Planning Department February 2, 2021

[13] SFPUC Biosolids Digester Facilities Project Minor Project Modification 17 – Interim Sidestream Nutrient Removal, reviewed by San Francisco Planning Department February 12, 2024

Table 2 Summary of Approved Project and Modified Project

Feature	Approved Project		Modified Project
	FEIR Project[9]	Previously Approved Project Changes[10]	
Odor Control	Designed to limit odors from biosolids facilities to within revised Southeast Plan site boundaries	No change	No change
Digester Gas	Production: approximately 2 million cubic feet per day Flaring: Infrequent	No change in production Flaring: Intermittent	No change
Energy Recovery	Technology: • Gas Turbines • Heat Recovery Steam Generation System • Steam Boilers: Backup Only • Electricity Generation (Annual Average): 4.2 to 5.2 megawatts	Removed Technology:[14] • Gas Turbines • Heat Recovery Steam Generation System • Steam Boilers: Backup Only (*see changes related to boilers in Solids Treatment Process above) Added Technology • Biogas Upgrade Facility with Thermal Oxidizer • PG&E Interconnection Station and Deoxygenation System Electricity Generation (Annual Average): 0.0 megawatts • Power for Biogas Upgrade Facility may be from PG&E • Power for all other facilities from SFPUC Hetch Hetchy Water and Power	No change
Southeast Plant Staffing Levels	280 staff (entire Southeast Plant including biosolids staff)	Same as FEIR project with addition of 1 employee (for the Biogas Utilization System)	No change

[14] San Francisco Environmental Planning, Biosolids Digester Facilities Project Addendum 1 to Environmental Impact Report, July 12, 2024.

Table 2 Summary of Approved Project and Modified Project

Feature	Approved Project		Modified Project
	FEIR Project[9]	Previously Approved Project Changes[10]	
New Operations, Maintenance, and Support Buildings/Structures	• Maintenance Shops 1 (19,600 square feet) • Maintenance Shops 2 (5,500 square feet) • Digester Electrical Rooms • Ferric Chloride Storage • Transformers • Maximum Height: 30 feet above grade	Same as FEIR project except:[15] • No Maintenance Shops 1 and 2	Same as approved project except includes: • Mechanical Maintenance Building (approximately 8,400 square feet) • Operations, Engineering, and Maintenance Building (approximately 35,600 square feet) and • Fenced enclosure for utilities (600 square feet) • Maximum Height: approximately 50 feet above grade
Landscaping Improvements	Trees, landscaping, fencing and street improvements along Jerrold Avenue Proposed removal of 90 trees	No change	Same as approved project plus tree removal (approximately 35 trees) and replacement within proposed operations, engineering, and maintenance buildings site
Biosolids Digester Facilities Project Site	Approximately 12.9 acres	Approximately 14 acres	Approximately 15.2 acres (additional 1.2-acre area within the Southeast Plant for the new operations, engineering and maintenance buildings site located near corner of Jerrold Avenue and Phelps Street)
Construction Schedule	Five years (2018-2023)	Six and a half years (2020-Summer 2026)	Approximately seven and a half years (2020-Fall 2027)

[15] SFPUC Biosolids Digester Facilities Project Minor Project Modification 10 – Modified Facilities, reviewed by San Francisco Planning Department February 2, 2021.

Table 2 Summary of Approved Project and Modified Project

Feature	Approved Project		Modified Project
	FEIR Project[9]	Previously Approved Project Changes[10]	
Construction Staging, Worker Parking	Within Southeast Plant, on Quint Street, closed portion of Jerrold Avenue, Piers 94 and 96, Southeast Greenhouses site, 1550 Evans Avenue	Same as FEIR project except: • No use of 1550 Evans Avenue, Piers 94/96 • Added 2000 McKinnon Avenue [16] • Expanded staging on Jerrold Avenue between Rankin Street and Phelps Street[17]	Same as approved project except: • Additional construction worker parking at 2 Rankin Street • Relocation of existing workers from building SEP 850 to 1900 Jerrold Avenue during construction
Construction Truck and Delivery Access, Worker Access	Truck/Delivery Access to Biosolids: Rankin Street, Evans Avenue, Jerrold Avenue, Cesar Chavez, Phelps Street Worker Access: Jerrold Avenue	Truck/Delivery Access to Biosolids: Same as FEIR project plus McKinnon Avenue Worker Access: Same as FEIR project plus Quint Street, McKinnon Avenue[16, 18]	Same as approved project except: • Addition of potential construction haul route on Illinois Street Bridge
Muni Route 23 Relocation	Temporarily relocated from Jerrold Avenue to Oakdale and Palou Avenues	No change	No change
Construction Equipment	Listed in FEIR	No change	No change
Temporary Roadway Closures	Jerrold Avenue between Caltrain right-of-way and Southeast Plant entrance on Phelps Street	Jerrold Avenue between Rankin and Phelps streets[19]	Truck/Delivery Access to Biosolids: Same as approved project.

[16] SFPUC Biosolids Digester Facilities Project Minor Project Modification 16 – McKinnon Parking Site, reviewed by San Francisco Planning Department May 17, 2023

[17] SFPUC Biosolids Digester Facilities Project Minor Project Modification – Additional Work Area Changes, Approved by San Francisco Planning Department April 28, 2020

[18] SFPUC Biosolids Digester Facilities Project Minor Project Modification 7 – Traffic on Jerrold, reviewed by San Francisco Planning Department September 1, 2020

[19] SFPUC Biosolids Digester Facilities Project Minor Project Modification 6– Additional Work Area Changes, Approved by San Francisco Planning Department April 28, 2020

Table 2 Summary of Approved Project and Modified Project

Feature	Approved Project		Modified Project
	FEIR Project[9]	Previously Approved Project Changes[10]	
Building Demolition	Central Shops Asphalt Plant Structures Buildings SEP 855, 870, 925, SS 5A/5B 1550 Evans Avenue Total: 136,000 square feet	Same as FEIR project except: • Building SEP 870 not demolished (3,800 square feet)[20] Total: 132,200 square feet	Same as approved project except: • Building SEP 850, existing backup generator and associated equipment (SEP 990, SS 4A/4B), and temporary pre-fabricated trailers 850A and 850B would be demolished (approximately 15,270 square feet) Total: 147,470 square feet
Excavation Volumes / Areas/Depths	Total Volume: 190,000 cubic yards Maximum Depth: 45 feet below ground surface	Reduced Total Volume: 184,812 cubic yards (reduced by net 5,188 cubic yards) Between 279 and 331 fewer piles	Same as approved project plus: • Additional volume: 21,455 cubic yards • Depth of excavation: 10 feet below ground surface outside of approved project site • 70 to 80 additional piles for building foundations (40 to 60 feet deep), resulting in between 199 and 261 fewer total piles for modified project *Total volume: 206,267 cubic yards* *Maximum Depth: Same as approved project*
Maximum Construction Workers (daily)	550	No change	No change

SOURCES: San Francisco Planning Department, Biosolids Digester Facilities Project Final Environmental Impact Report, March; SFPUC; San Francisco Planning Department, Biosolids Digester Facilities Project Addendum 1 to Environmental Impact Report, July 12, 2024.

[20] SFPUC Biosolids Digester Facilities Project Minor Project Modification 10 – Modified Facilities, reviewed by San Francisco Planning Department February 2, 2021; San Francisco Planning Department, Addendum 1 to Environmental Impact Report, Biosolids Digester Facilities Project, Biogas Utilization System, July 12, 2024

4.2 Cumulative Projects in the Site Vicinity

FEIR Section 4.1.3, Approach to Cumulative Impact Analysis and Cumulative Projects, describes potential projects in the site vicinity. FEIR Table 4.1-1 lists 40 nearby projects considered in the FEIR cumulative impact analysis, including the construction dates of those projects. Since certification of the FEIR, some of the nearby projects have been completed and would no longer be part of the modified project cumulative scenario; others have been delayed and would now overlap with the modified project construction. In addition, new projects have been proposed both at the Southeast Plant and in the project vicinity. **Appendix A** updates the projects considered in the cumulative impact analysis for the modified project.

4.3 Existing Air Quality Conditions

In 2020, the City and County of San Francisco completed an update to the San Francisco Citywide Health Risk Assessment, which was previously prepared in 2014.[21] The 2020 assessment evaluated the cancer risks and the concentrations of particulate matter measuring 2.5 microns or less in diameter ($PM_{2.5}$) from existing known sources of air pollution including updates to vehicle activity and emissions rates, updates to maritime emissions, emissions from Caltrain and updated stationary source emissions. The 2020 assessment was used to update the air pollutant exposure zone that is referenced in San Francisco Health Code article 38 and in the Clean Construction Ordinance. The 2020 assessment and air pollutant exposure zone analysis updated the 2014 analysis that was referenced in the FEIR. This addendum analysis uses the updated 2020 Citywide Heath Risk Assessment for the existing-plus-project and cumulative health risk assessment analyses. The updated background health risks show an increase in the existing background health risks due to the changes in emissions and methodology since 2014.

4.4 Updates to CEQA Guidelines

Since FEIR certification, the CEQA Guidelines Appendix G Environmental Checklist Form has been updated to add the topics of Tribal Cultural Resources and Wildfire. Accordingly, these topics are discussed in the analysis of potential environmental effects below.

5.0 Analysis of Potential Environmental Effects

5.1 Cultural Resources

Biosolids Digester Facilities Project FEIR Findings

The Biosolids Digester Facilities Project FEIR found that the approved project would have potentially significant impacts related to the following significance criteria:

- Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5, including those resources listed in Article 10 or Article 11 of the San Francisco Planning Code

[21] San Francisco Department of Public Health (SF DPH), San Francisco Planning Department, and Ramboll. 2020. San Francisco Citywide Health Risk Assessment: Technical Support Documentation.

- Cause a substantial adverse change in the significance of an archeological resource pursuant to CEQA Guidelines Section 15064.5
- Disturb any human remains, including those interred outside of formal cemeteries

Historic Architectural Resources

The FEIR evaluated all buildings and structures at the Southeast Plant for eligibility for listing on the National Register of Historic Places (National Register) and the California Register of Historical Resources (California Register). The FEIR determined that a portion of the Southeast Plant, consisting of 22 buildings and structures, meets the criteria to be considered an eligible historic district and named it the Southeast Treatment Plant Streamline Moderne Industrial Historic District (as shown on FEIR Figure 4.5-2, Historic District). However, the evaluation found that none of the buildings or structures within the eligible historic district are individually significant. Additionally, the FEIR found that Buildings A and B of the Central Shops complex (outside the boundaries of, and separate from, the historic district) were individually eligible for listing on the California Register and National Register because each was an important example of Industrial Modern architecture in San Francisco.

The approved project included the demolition of all the Central Shops buildings (including Buildings A and B) to build the new digester tanks at those locations. The demolition of the Central Shops buildings was determined to be a substantial adverse change in the significance of the historical resources and required implementation of Mitigation Measure M-CR-1 (Documentation of Historic Resources and Interpretive Display). The FEIR concluded that while Mitigation Measure M-CR-1 (Documentation of Historic Resources and Interpretive Display) would reduce the severity of the impact, it would not reduce the impact to a less-than-significant level, and the demolition of the Central Shops was a significant and unavoidable impact with mitigation.

Archeological Resources

The FEIR identified the presence of previously recorded California Register- and National Register-eligible Native American archeological site CA-SFR-171 within the approved project site, including the potential presence of a deeply submerged/buried midden deposit. It also identified the potential for historic archeological resources related to a potential buried historic refuse deposit. The FEIR determined that these archeological resources could be impacted by excavation and pile drilling, but that impacts would be reduced to a less-than-significant level through implementation of Mitigation Measure M-CR-2a (Archeological Testing, Monitoring, and/or Data Recovery) and Mitigation Measure M-CR-2b (Procedures for Accidental Discovery of Archeological Resources) that require the SFPUC as directed by Planning Department's archeologists to conduct additional archeological testing prior to construction, monitoring during construction, data recovery and public interpretation if significant resources were found, and halt work and implement proper procedures to ensure appropriate treatment of significant archeological resources discovered during project implementation. Implementation of these measures also required consultation with Native American representatives and Native American monitoring during construction activities.

Human Remains

The FEIR discussed that although no known human burial locations had been identified within the approved project site during archeological investigations undertaken for the FEIR, the possibility that human remains could be encountered during earthmoving activities could not be discounted given construction would

occur within a known Native American archeological site. The FEIR concluded that potentially significant impacts on human remains would be reduced to a less-than-significant level through implementation of Mitigation Measure CR-2a (Archeological Testing, Monitoring, and/or Data Recovery), which requires that any human remains or associated or unassociated funerary objects discovered during construction be treated in compliance with applicable local, state and federal laws, including immediate notification of the Planning Department's archeologist, the Coroner of the City and County of San Francisco (Office of the Chief Medical Examiner), and the California Native American Heritage Commission in the event the Coroner determined that the human remains are Native American remains. The California State Native American Heritage Commission would appoint a Most Likely Descendant (Public Resources Code Section 5097.98). The Most Likely Descendant would provide recommendations to the SFPUC on the appropriate treatment of the remains.

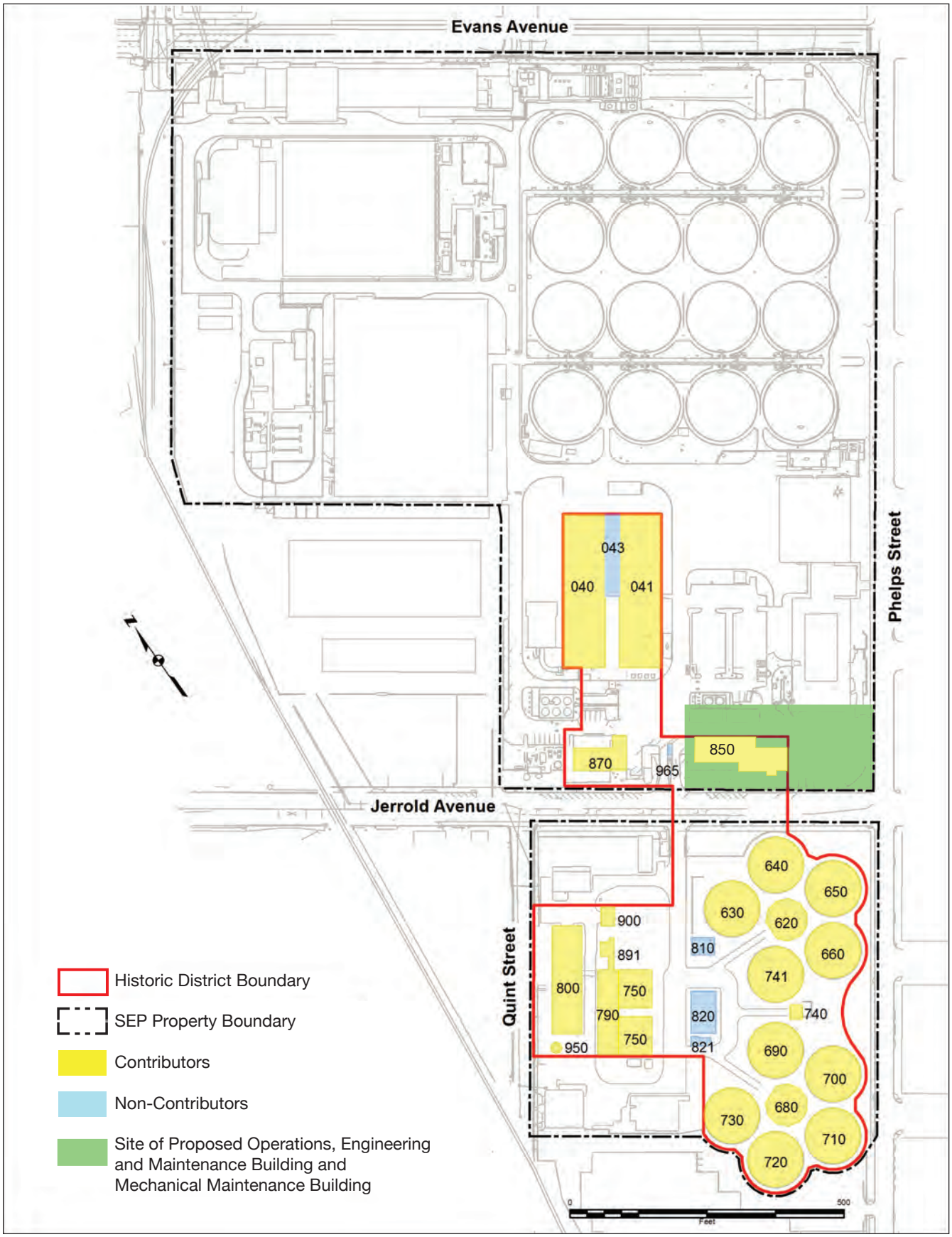
Modified Project Impacts

Historic Architectural Resources

As discussed in addendum 1, building SEP 870 would not be demolished. Construction of the modified project would demolish the Operator's Building (SEP 850); two temporary, prefabricated trailers (SEP 850A and 850B); a small, paved parking lot at the north corner of Jerrold Avenue and Phelps Street, and the existing emergency generators and associated electrical equipment (SS 4A/4B, SEP 990). Of these, only building SEP 850 is a contributor to the eligible historic district, and the trailers, parking lot, generators and associated electrical equipment are located outside of the eligible historic district. Additionally, two new buildings would be constructed in the area of demolition: the two-story with mezzanine Mechanical Maintenance Building (SEP 603) and the three-story Operations, Engineering, and Maintenance Building (SEP 914). Building SEP 914 would be sited within the boundary of the eligible historic district, and building SEP 603 would be adjacent to it. **Figure 9** shows the location of the operations, engineering and maintenance buildings site relative to the historic district.

Building SEP 850 is a contributor to the eligible historic district, but it is not an individually-eligible historical resource. After demolition of building SEP 850, the remaining 21 buildings and structures that contribute to the eligible historic district would be unaffected by the modified project and would, as a whole, retain their ability to convey their significant associations with implementation of the 1935 Sewer System Master Plan and continue to be representative of the Streamline Moderne architectural style that characterized the SFPUC's original wastewater facilities.

In place of building SEP 850, the modified project would construct one new non-contributing building within the boundaries of the eligible historic district, i.e., the three-story Operations, Engineering, and Maintenance Building (SEP 914). Construction of building SEP 914 would have a less-than-significant impact on the eligible historic district, as the vast majority of the eligible historic district would remain intact. Although the number of non-contributors within the eligible historic district would increase from four to five after completion of the modified project, the district would retain a relatively high ratio of 21 contributors to five non-contributors. In addition, introduction of the proposed modifications to the eligible historic district would be a less-than-significant impact because, after 1952, the original master plan was abandoned, and buildings of different architectural types were already introduced over time and were sited based on individual project objectives, rather than on the original master plan. Further, the new building SEP 914 would be of similar scale to the existing buildings, would be inside the wall on the north side of Jerrold Avenue away from and minimally visible from the main SEP South complex where most of the contributory



2020\D2020000990.07 - SEP Trades and Maintenance Buildings\05 Graphics-GIS-Modeling\Illustrator

SOURCE: Brewster, B., Department of Parks and Recreation (DPR) form, Southeast Treatment Plant Streamline Moderne Industrial Historic District, Prepared for San Francisco Public Utilities Commission, April 2016

Operations, Engineering, and Maintenance Buildings

Figure 9
Southeast Treatment Plant Streamline Moderne Industrial Historic District

buildings are located, and would be constructed on the edge of the district boundary as opposed to its center. Therefore, the modified project would not significantly impact the historic integrity of the eligible historic district.

Other new construction associated with the modified project would occur outside of the eligible historic district. All new construction would occur at least 50 feet from the other district contributors. This distance would provide a sufficient physical and visual buffer between the new buildings and the historical resource (i.e., the eligible historic district) to ensure that no other significant, indirect impacts would occur as a result of construction. For additional information, see the analysis in Section 5.4, Noise and Vibration.

Furthermore, in December 2024, planning department preservation staff determined that the modified project would not result in any new or substantially more severe impacts on the eligible historic district that were not previously disclosed in the environmental review for the approved project (**Appendix C**). As such, the removal of building SEP 850 would have a less-than-significant impact on the overall significance and historic integrity of the eligible historic district.

Archeological Resources

The FEIR identified the presence of previously recorded California Register- and National Register-eligible Native American archeological site CA-SFR-171 within the approved project site, and the proposed modifications overlap with a small area of the eastern portion of the site. Far Western Anthropological Research Group, Inc. (Far Western) conducted a geoarcheological investigation in 2021 that revealed a stratum of artificial fill that extended to depths of 14 feet to as much as 21 feet below surface in the modified project footprint. Redeposited shell midden was encountered at depths that ranged between 14 and 18 feet below surface. The midden stratum was underlain by bay and peat deposits and then by an intact layer of buried surface soil, ("A horizon"[22]) the surface of which was encountered at depths ranging between 18 and 23 feet below surface.

Grading and trenching for the modified project would be confined to the artificial fill stratum, while the proposed piles would penetrate both the redeposited midden and the buried A Horizon. The planning department's archeologists have determined that the redeposited midden did not contribute to the significance of nearby site CA-SFR-171. On this basis, construction of the modified project would not result in significant impacts on CA-SFR-171.[23] Based on the deposit's distribution as revealed through testing and data recovery, the modified project's potential for significant incremental effects to CA-SFR-171 is low.

Given the very small size and relatively limited number of samples provided by the geoarcheological cores in the modified project site, there remains the potential that pockets of intact midden or lenses of buried/submerged midden, undetected in relatively widely spaced coring in the vicinity, could be present. It is unlikely that such materials would be exposed in the proposed shallow grading and excavation. However, artifacts that could be significant diagnostically and/or human remains potentially could be brought to the surface in spoils from pile construction. Such impacts on archaeological resources would be potentially significant. However, with implementation of **Mitigation Measure M-CR-2b (Procedures for Accidental Discovery of Archeological Resources)** as presented below in full, which halts work and implements proper

[22] In developed soils, the A horizon is the shallow soil that contains organic matter (humus), indicative of the influence of air, plants and other soil organisms.

[23] Vanderslice, Allison, Email to Kelly Yong, SF Water. From Allison Vanderslice, CEQA Cultural Resources Team Manager, Environmental Planning Division. August 8, 2024.

procedures for appropriate treatment of significant archeological resources discovered, impacts would be reduced to a less-than-significant level.

Mitigation Measure M-CR-2b: Accidental Discovery of Archeological Resources

The following mitigation measure is required to avoid any potential adverse effect from the project on accidentally discovered buried or submerged historical resources as defined in CEQA Guidelines Section 15064.5(a) and (c). The project sponsor shall distribute the Planning Department archeological resource "ALERT" sheet to the project prime contractor; to any project subcontractor (including demolition, excavation, grading, foundation, pile installation, etc. firms); or utilities firm involved in soils disturbing activities within the project site. Prior to any soils disturbing activities being undertaken each contractor is responsible for ensuring that the "ALERT" sheet is circulated to all field personnel including machine operators, field crew, pile drivers, supervisory personnel, etc.

A preconstruction training shall be provided to all construction personnel by a qualified archeologist prior to their starting work on the project. The training may be provided in person or using a video and include a handout prepared by the qualified archeologist. The video and materials shall be reviewed and approved by the ERO and the SFPUC. The purpose of the training is to enable personnel to identify archeological resources that may be encountered and to instruct them on what to do if a potential discovery occurs. Images or video of expected archeological resource types and archeological testing and data recovery methods should be included in the training. As possible, video or images should utilize archeological investigations that have occurred at the project site. The training should also include general information about the known archeological resources identified within the project site.

The project sponsor shall provide the Environmental Review Officer (ERO) with a signed affidavit from the responsible parties (prime contractor, subcontractor[s], and utilities firm) to the ERO confirming that all field personnel have received copies of the Alert Sheet and have taken the preconstruction training.

Should any indication of an archeological resource be encountered during any soils disturbing activity of the project, the project Head Foreman and/or project sponsor shall immediately notify the ERO and the SFPUC and shall immediately suspend any soils disturbing activities in the vicinity of the discovery until the ERO, in coordination with the SFPUC, has determined what additional measures should be undertaken.

If the ERO determines that the find may represent an archeological resource, the project sponsor shall retain the services of an archeological consultant. The archeological consultant shall advise the ERO and the SFPUC as to whether the discovery is an archeological resource, retains sufficient integrity, and is of potential scientific/historical/cultural significance. If an archeological resource is present, the archeological consultant shall identify and evaluate the archeological resource. The archeological consultant shall make a recommendation as to what action, if any, is warranted. Based on this information, the ERO may require, if warranted, specific additional measures to be implemented by the project sponsor.

Measures might include: preservation in situ of the archeological resource; an archeological monitoring program; or an archeological testing program. If an archeological monitoring program or

archeological testing program is required, it shall be consistent with the Environmental Planning (EP) division guidelines for such programs. The ERO may also require that the project sponsor immediately implement a site security program if the archeological resource is at risk from vandalism, looting, or other damaging actions.

The project archeological consultant shall submit a Final Archeological Resources Report (FARR) to the ERO and the SFPUC that evaluates the historical significance of any discovered archeological resource and describing the archeological and historical research methods employed in the archeological monitoring/data recovery program(s) undertaken. Information that may put at risk any archeological resource shall be provided in a separate removable insert within the final report.

Copies of the Draft FARR shall be sent to the ERO for review and approval and concurrently to the SFPUC for review and comment. Once approved by the ERO, copies of the FARR shall be distributed as follows: California Archaeological Site Survey Northwest Information Center (NWIC) shall receive one (1) copy and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The Environmental Planning division of the Planning Department shall receive one bound copy, one unbound copy and one unlocked, searchable PDF copy on CD, three copies of the FARR along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest or interpretive value, the ERO may require a different final report content, format, and distribution than that presented above.

Human Remains

No human burial locations have been identified during construction of the approved project to date, and none have been identified within the modified project site during archeological investigations undertaken for the approved project. However, the possibility that human remains could be encountered during earthmoving activities cannot be discounted, which would be a potentially significant impact. With implementation of Mitigation Measure M-CR-2b (Procedures for Accidental Discovery of Archeological Resources) as discussed above, which requires that any human remains or associated or unassociated funerary objects discovered during construction be treated in compliance with applicable local, state and federal laws, impacts would be reduced to a less-than-significant level.

Like the approved project, the modified project operations would not affect historic architectural or archeological resources, including human remains.

Conclusion

In summary, with implementation of Mitigation Measure M-CR-2b (Procedures for Accidental Discovery of Archeological Resources), the modified project would not result in significant impacts on cultural resources greater than those identified in the FEIR. Moreover, the modified project would not result in new significant impacts on cultural resources that were not previously identified in the FEIR; would not result in more severe impacts than those identified; and would not require new mitigation measures.

Cumulative Impacts

Historic Architectural Resources

The FEIR identified the geographic scope of cumulative effects on historic architectural resources to be the Southeast Plant and the boundaries of the eligible historic district. The FEIR determined that demolition of building SEP 870 in combination with cumulative projects including the Demolition of the Existing SEP Digesters and Southside Renovation Project would result in a significant and unavoidable cumulative impact on the eligible historic district, even with implementation of Mitigation Measure M-CR-1 (Documentation of Historic Resources and Interpretive Display), because the majority of contributory buildings would be demolished and mitigation would not abate this impact. The project's contribution was determined to be cumulatively considerable.

As discussed in Section 4.2, Cumulative Projects in the Site Vicinity, and presented in Appendix A, several new projects have been proposed at the Southeast Plant since the certification of the FEIR. The following projects could result in cumulative impacts on historic architectural resources due to their location within the eligible historic district and/or the Southeast Plant:

- *HVAC and Mechanical Upgrades* – This project would repair and replace various HVAC equipment and mechanical systems at the Southeast Plant. No changes would be made to historical resources.
- *Maintenance Building (SEP 940) Interim Improvement* – This project would modify Building 940 (located outside the eligible historic district) to include interim shop areas, HVAC improvements, and health and safety improvements.

The projects at the Southeast Plant are not expected to result in significant impacts on historic architectural resources.

As with the approved project, the modified project would contribute to a significant cumulative impact on historic architectural resources because the modified project continues to allow for the eventual demolition of the existing digesters and control building, and in combination with cumulative projects (in particular the Southside Renovation Project) would demolish 13 of the 22 contributors to the eligible historic district.[24] Because cumulative impacts on historic architectural resources would be the same as those identified in the FEIR, implementation of **Mitigation Measure M-CR-1 (Documentation of Historic Resources and Interpretive Display)** would be required but would not reduce the severity of the cumulative impact to a less-than-significant level. Adopted Mitigation Measure M-CR-1 has been modified as shown below to reflect the planning department's current professional best practice and to clarify the measure's applicability to the remaining historic resources on the site.[25] The proposed modifications do not reflect an increased impact on the historic district because overall the modified project would substitute demolition of one contributor (Building 870) with demolition of another contributor (Building 850).[26] Deletions are shown in strikethrough and additions in double underline. The cumulative impact on the eligible historic district would be significant and unavoidable with mitigation.

[24] Refer to FEIR page 4.5-56.

[25] Documentation of the Central Shops is complete.

[26] The FEIR Project included demolition of Building 870, which the approved project would no longer demolish (SFPUC Biosolids Digester Facilities Minor Project Modification 10 – Modified Facilities, reviewed by San Francisco Planning Department February 2, 2021).

Mitigation Measure M-CR-1: Documentation of Historic Resources and Interpretive Display. Prior to demolition of any individual historic resource or contributor to a historic district, the SFPUC shall submit to the planning department for review photographic and narrative documentation of the individual historic resource or district contributor. ~~retain~~ The documentation shall be funded by the SFPUC and undertaken by a qualified professional who meets the standards for history, architectural history, or architecture (as deemed appropriate by the department's preservation staff), as set forth by the Secretary of the Interior's Professional Qualifications~~ Standards for Architectural History to prepare written and photographic documentation of the Central Shops~~ (36 Code of Federal Regulations, part 61). The documentation scope ~~effort~~ shall be reviewed and approved by the department prior to any work on the documentation. A documentation package shall consist of the required forms of documentation and shall include a summary of the historic resource and an overview of the documentation provided. Documentation of the building should include the following:

- *HABS/HALS-Like Measured Drawings* – A set of Historic American Buildings/Historic American Landscapes Survey-like (HABS/HALS-like) measured drawings that depict the existing size, scale, and dimension of the subject property. The department's preservation staff will accept the original architectural drawings or an as-built set of architectural drawings (plan, section, elevation, etc.). Copies of building plans gathered from the prior evaluations of the Biosolids Digester Facilities Project can be reused and reformatted for this effort. The department's preservation staff will assist the consultant in determining the appropriate level of measured drawings. A cover sheet may be required that describes the historic significance of the property. ~~based on the National Park Service (NPS) Historic American Building Survey (HABS)/Historic American Engineering Record (HAER) Historical Report Level II Guidelines, and NPS's policy for photographic documentation as outline in the National Register of Historic Places and National Historic Landmarks Survey Photo Policy Expansion.~~
- The written historical data for this documentation shall follow HABS/~~HAER~~HALS standards. Efforts shall be made to locate original construction drawings or plans ~~of the Central Shops~~. If located, these drawings shall be reproduced and included in the dataset. Historical information, as well as copies of building plans gathered from the prior evaluations of the SEP ~~and Central Shops~~, can be reused and reformatted for this effort.
- *HABS/HALS-Like Photographs* – Digital photographs of the interior and the exterior of the individual historic resource or district contributor. Large-format negatives are not required. The scope of the digital photographs shall be reviewed by the department's preservation staff for concurrence, and all digital photography shall be conducted according to current National Park Service standards. The photography shall be undertaken by a qualified professional with demonstrated experience in HABS photography. ~~Digital photography shall be used. The ink and paper combinations for printing photographs shall be in compliance with National Register-National Historic Landmark (NR-NHL) Photo Policy Expansion[22] and have a permanency rating of approximately 115 years. Digital photographs shall be taken as uncompressed, Tagged Image File Format (TIFF) files. Each image shall be 1,600 by 1,200 pixels at 330 pixels per inch (ppi) or larger in size, color format, and printed in black and white. The file name for each electronic image shall correspond with the index of photographs and photograph label.~~ Photograph views for the dataset shall include (a) contextual views; (b) views of each side of each building and interior views, where possible; (c) oblique views of buildings; and (d) detail views of character-

defining features. All views shall be referenced on a photographic key. This photographic key shall be on a map of the property and shall show the photograph number with an arrow to indicate the direction of the view. Historic photographs shall also be collected, reproduced, and included in the dataset.

The SFPUC shall reach out to the following repositories to determine if they would like copies of the documentation and to assess the documentation format (digital or hard copy) preferred: ~~transmit the datasets as hardcopies on archival paper and in electronic PDF format to the~~ History Room of the San Francisco Public Library, ~~the San Francisco Planning Department,~~ the archives of the San Francisco Public Utilities Commission, and to the Northwest Information Center of the California Historical Information Resource System. ~~The SFPUC shall scope the documentation measures with San Francisco Planning Department Preservation staff.~~ Preservation staff shall also review and approve the submitted documentation for adequacy.

In addition, the SFPUC shall provide a permanent display of interpretive materials (which may include, but are not limited to, a display of photographs, a brochure, educational website, or an exhibitive display) concerning the history and architectural features of the individual historic resource or district contributor~~Central Shops~~. Development of the interpretive materials shall be supervised by an architectural historian or historian who meets the Secretary of the Interior's Professional Qualification Standards. The interpretative materials shall be placed in a prominent, public setting. A proposal describing the general parameters of the interpretive materials shall be approved by Planning Department Preservation staff prior to construction completion. The substance, media, and other elements of such interpretive display shall be approved by Planning Department Preservation staff prior to completion of the project.

Archaeological Resources and Human Remains

The FEIR identified the geographic scope of cumulative effects on archeological resources and human remains to be the immediate vicinity of locations where the approved project would cause ground disturbance. It also determined that the approved project in combination with cumulative projects could result in a significant cumulative impact on buried archeological resources due to the extent of excavation required, but that with implementation of Mitigation Measures M-CR-2a and M-CR-2b the approved project's contribution to cumulative impacts would not be considerable.

As discussed in Section 4.2, Cumulative Projects in the Site Vicinity, and presented in Appendix A, the list of potential cumulative projects at the Southeast Plant has been revised since the certification of the FEIR. The following projects could result in cumulative impacts to archaeological resources and human remains due to their location within the Southeast Plant and potential for ground disturbance:

- Southeast Plant Headworks Replacement Project
- SEP Power Feed and Primary Switchgear Upgrades

The cumulative ground disturbance of the modified project and cumulative projects in the vicinity could cause potentially significant cumulative impacts on archeological resources. As with the approved project, the modified project's contribution to impacts on archeological resources and human remains could be cumulatively considerable because, as discussed above, the modified project would expand the area of ground disturbance and there remains the potential that pockets of intact midden or lenses of

buried/submerged midden, undetected in relatively widely spaced coring in the vicinity, could be present in the expanded area. However, implementation of Mitigation Measure M-CR-2b (Procedures for Accidental Discovery of Archeological Resources) as discussed previously would require implementation of legally required appropriate treatment of human remains as well as actions to follow in the event of an inadvertent discovery of archeological materials. Therefore, with implementation of Mitigation Measure M-CR-2b, the modified project's contribution to cumulative impacts would not be considerable, and the impact would be less than significant with mitigation.

Conclusion

In summary, with implementation of Mitigation Measures M-CR-1 and M-CR-2b, the modified project would not result in significant impacts on cultural resources greater than those identified in the FEIR. Moreover, the modified project would not result in new significant impacts on cultural resources that were not identified in the FEIR; would not result in more severe impacts than those identified; and would not require new mitigation measures.

5.2 Tribal Cultural Resources

The Biosolids Digester Facilities Project FEIR did not analyze tribal cultural resources as this topic was not yet mandated for inclusion under CEQA. As defined in Public Resources Code section 21074, a Tribal Cultural Resource is either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

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

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

Construction

As discussed in Section 5.1, Cultural Resources, under Archaeological Resources, archeological site CA-SFR-171 was found eligible for the National Register and California Register. Based on previous consultation with local California Native American tribal representatives undertaken by the San Francisco Planning Department, all Native American archeological resources have cultural value to tribal representatives and are considered to be Tribal Cultural Resources. As such CA-SFR-171 is considered to be a Tribal Cultural Resource. As required under Mitigation Measure M-CR-2a (Archeological Testing, Monitoring, and/or Data Recovery) and discussed in the Cultural Resources section above, an archeological data recovery program has been implemented, and Native American monitoring was undertaken as part of the effort. Native American monitoring and consultation will continue throughout construction as required by Mitigation Measure M-CR-2a. Cultural sensitivity training by a local Native American representative will also be included in tandem with archeological awareness and accidental discovery training for construction crews.

Additionally, as requested through prior consultation with local Native American tribal representatives, a public interpretation program is one means to memorialize the cultural value of the tribal cultural resource

while also educating the public concerning Native American lifeways, both past and present. On September 1, 2021, the San Francisco Planning Department sent letters to local California Native American representatives providing information on CA-SFR-171 and asking if they would like to consult on a public interpretation program. Based on the responses received, the Planning Department and SFPUC are in the process of developing a public interpretation program with the Association of Ramaytush Ohlone, which will include both an onsite interpretative component as well as a nearby offsite component in a more publicly accessible location. Therefore, project impacts on tribal cultural resources would be less than significant with the implementation of tribal consultation on the archeological investigations of CA-SFR-171, and of a public interpretation program that is currently under preparation in consultation with the Native American community, as required under **Mitigation Measure M-CR-2a (Archeological Testing, Monitoring, and/or Data Recovery)**. Implementation of Mitigation Measure M-CR-2a, as presented below in full, would reduce impacts to less-than-significant levels.

> **Mitigation Measure M-CR-2a. Archeological Testing, Monitoring, and/or Data Recovery**
>
> Based on the results of the project Archeological Research Design and Treatment Plan[27] (ARDTP), legally-significant prehistoric archeological resources are present within the archeological C-APE. The following measures shall be undertaken to avoid any potentially significant adverse effects from the project on an historical resource under CEQA. The SFPUC shall retain the services of a qualified archeological consultant(s), based on standards developed by the City and County of San Francisco Environmental Review Officer (ERO). The archeological consultant(s) shall have demonstrated experience in geoarcheology and historical archeology. The archeological consultant shall implement archeological testing and other treatment as specified in the project ARDTP, as detailed below, which shall include archeological monitoring and data recovery as required pursuant to findings of ongoing testing and this measure. The archeological consultant's work shall be conducted in accordance with this measure and with the requirements of the project ARDTP at the direction of ERO or its designated representative and in coordination with the SFPUC. In instances of inconsistency between the requirement of the project ARDTP and of this archeological mitigation measure, the requirements of this archeological mitigation measure shall prevail. Project design changes after finalizing the ARDTP eliminated the portion of the C-APE that was identified in the ARDTP as sensitive for historical archeological resources. Testing as discussed below for historical archeological resources shall only be required if future design changes call for excavation in that location. If future project design changes further revise other parts of the C-APE, then testing shall only be required in archeologically sensitive areas that potentially would be adversely affected by project implementation. All plans and reports prepared by the consultant as specified herein shall be submitted directly to the ERO for review and comment and concurrently to the SFPUC for review and comment, and shall be considered draft reports, subject to revision until final approval by the ERO. Archeological monitoring and/or data recovery programs required by this measure could suspend construction of the affected area of the project for up to a maximum of four weeks. At the direction of the ERO, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce to a less-than-significant level potential effects on a significant archeological resource as defined in CEQA Guidelines Section 15064.5 (a) and (c).

[27] Byrd, Brian F., Philip Kaijankoski, Rebecca Allen, and Matthew Russell, Archaeological Research Design and Treatment Plan for the Biosolids Digester Facility Project, Southeast Water Pollution Control Plant, San Francisco, California. Prepared for San Francisco Public Utilities Commission, October, 2016.

Consultation with Descendant Communities. On discovery of an archeological site[28] associated with descendant Native Americans, the Overseas Chinese, or other potentially interested descendant group, an appropriate representative[29] of the descendant group, the ERO, and the SFPUC shall be contacted. The representative of the descendant group shall be given the opportunity to monitor archeological field investigations of the site and to offer recommendations to the ERO and SFPUC regarding appropriate archeological treatment of the site, of recovered data from the site, and, if applicable, any interpretative treatment of the associated archeological site. A copy of the Final Archeological Resources Report shall be provided to the representative of the descendant group.

Archeological Testing Program–Prehistoric Archeology. Depending on the results of on-going prehistoric archeological testing outlined in the project ARDTP, additional testing may be required to define site boundaries of CA-SFR-171 or other prehistoric deposits at the SEP, and to assess whether redeposited and/or reworked prehistoric archeological material identified in the project ARDTP within the C-APE has sufficient integrity to contribute to the significance of known resources at SEP. At the direction of the ERO and in coordination with SFPUC, additional testing may be rolled into a subsequent data recovery program (see below).

Archeological Testing Program–Historical Archeology. If future design changes would affect the area identified as sensitive for historical archeological resources, the archeological consultant shall implement the historical archeological testing plan outlined in the project ARDTP for potential historical archeological resources that could be adversely affected by the project. The archeological testing program shall be conducted in accordance with the approved ARDTP. The project ARDTP identifies the property types of the expected archeological resource(s) that could be adversely affected by the project, the testing method to be used, and the locations recommended for testing. The purpose of the archeological testing program will be to determine to the extent possible the presence or absence of historical archeological resources and to identify and to evaluate whether any archeological resource encountered on the site constitutes an historical resource under CEQA.

If future project design changes further alter the C-APE from what is identified in the ARDTP, then the archeological consultant shall prepare and submit to the ERO for review and approval an archeological testing plan (ATP) for both prehistoric and historical archeological resources to address any area added to the C-APE to accommodate the project design changes. The archeological testing program shall be conducted in accordance with the approved ATP. The ATP shall identify the property types of the expected archeological resource(s) that potentially could be adversely affected by the project, the testing method to be used, and the locations recommended for testing. The purpose of the archeological testing program will be to determine to the extent possible the presence or absence of archeological resources and to identify and to evaluate whether any archeological resource encountered on the site constitutes an historical resource under CEQA.

At the completion of the archeological testing program, as required, the archeological consultant shall submit a written report of the findings to the ERO and the SFPUC. If based on the archeological testing program the archeological consultant finds that significant archeological resources may be

[28] The term "archeological site" is intended here to minimally include any archeological deposit, feature, burial, or evidence of burial.

[29] An "appropriate representative" of the descendant group is here defined to mean, in the case of Native Americans, any individual listed in the current Native American Contact List for the City and County of San Francisco maintained by the California Native American Heritage Commission and in the case of the Overseas Chinese, the Chinese Historical Society of America. An appropriate representative of other descendant groups should be determined in consultation with the Department archeologist.

present, the ERO in consultation with the archeological consultant and coordination with the SFPUC shall determine if additional measures are warranted. Additional measures that may be undertaken include additional archeological testing, archeological monitoring, and/or an archeological data recovery program. No archeological data recovery shall be undertaken without the prior approval of the ERO or the Planning Department archeologist. If the ERO determines that a significant archeological resource is present and that the resource could be adversely affected by the project, at the discretion of the SFPUC either:

A) The project shall be re-designed so as to avoid any adverse effect on the significant archeological resource; or

B) An archeological data recovery program shall be implemented, unless the ERO determines that the archeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible.

Archeological Monitoring Program. Preparation of an archeological monitoring program (AMP) may be required prior to project construction depending on the results of the prehistoric and historical archeological testing programs outlined above. If the ERO in consultation with the archeological consultant determines that an archeological monitoring program shall be implemented, the archeological monitoring program shall minimally include the following provisions:

- The archeological consultant, SFPUC, and ERO shall meet and consult on the scope of the AMP reasonably prior to commencement of any project-related soils disturbing activities. The ERO in consultation with the archeological consultant shall determine what project activities shall be archeologically monitored based on the results of pre-construction archeological testing currently approved and underway or planned, and archeological sensitivity assessment based on the results of that testing;
- The archeological consultant shall advise all project contractors to be on the alert for evidence of the presence of the expected resource(s), of how to identify the evidence of the expected resource(s), and of the appropriate protocol in the event of discovery of a potential archeological resource;
- The archeological monitor(s) shall be present on the project site according to a schedule agreed upon by the archeological consultant and the ERO or until the ERO has, in consultation with project archeological consultant, otherwise determined that project construction activities could have no effects on significant archeological deposits and monitoring can conclude;
- The archeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis;
- If an intact archeological deposit is encountered, all soils-disturbing activities in the vicinity of the deposit shall cease. The archeological monitor shall be empowered to temporarily redirect demolition/excavation/construction activities and equipment until the deposit is evaluated. The archeological consultant shall immediately notify the ERO and the SFPUC of the encountered archeological deposit. The archeological consultant shall make a reasonable effort to assess the identity, integrity, and significance of the encountered archeological deposit, and present the findings of this assessment to the ERO and the SFPUC.

Whether or not significant archeological resources are encountered, the archeological consultant shall submit a written report of the findings of the monitoring program to the ERO and the SFPUC.

Archeological Data Recovery Program. An archeological data recovery program shall be implemented in accord with an archeological data recovery plan (ADRP). The ADRP shall incorporate (1) programmatic-level procedures for deeply buried prehistoric archeological deposits; (2) site-specific procedures for identified prehistoric archeological deposits; (2) and site-specific procedures for historical archeological deposits (as warranted).

The archeological consultant, SFPUC, and ERO shall meet and consult on the scope of the ADRP prior to preparation of a draft ADRP. The archeological consultant shall submit a draft ADRP to the ERO and SFPUC. The ADRP shall identify how the proposed data recovery program will preserve the significant information the archeological resource is expected to contain. That is, the ADRP shall identify what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the portions of the historical resource that could be adversely affected by the project. Destructive data recovery methods shall not be applied to portions of the archeological resources if non-destructive methods are practical.

The scope of the ADRP shall include the following elements:

- *Field Methods and Procedures*. Descriptions of proposed field strategies, procedures, and operations for the following elements:

    1) Programmatic-level procedures for deeply buried prehistoric archeological deposits potentially uncovered during excavation for deep foundations (e.g., driven, drilled, or augured piles).

    2) Site-specific procedures for known/identified prehistoric archeological deposits potentially affected by project excavation activities (e.g. CA-SFR-171).

    3) Site-specific procedures for historical archeological deposits (as warranted) potentially affected by project excavation activities.

- *Cataloguing and Laboratory Analysis*. Description of selected cataloguing system and artifact analysis procedures.
- *Discard and Deaccession Policy*. Description of and rationale for field and post-field discard and deaccession policies.
- *Interpretive Program*. Consideration of an on-site/off-site public interpretive program during the course of the archeological data recovery program.
- *Security Measures*. Recommended security measures to protect the archeological resource from vandalism, looting, and non-intentionally damaging activities.
- *Final Report*. Description of proposed report format and distribution of results.
- *Curation*. Description of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities.

Human Remains and Associated or Unassociated Funerary Objects. The treatment of human remains and of associated or unassociated funerary objects discovered during any soils disturbing activity, in the context of an archeological deposit or in isolation, shall comply with applicable state and federal laws. This shall include immediate notification of the Coroner of the City and County of San Francisco and in the event of the Coroner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission (NAHC) who shall appoint a Most Likely Descendant (MLD) (PRC Section 5097.98). PRC 5097.98 indicates that " The descendants shall complete their inspection and make their recommendation within 48 hours of their notification by the Native American Heritage Commission." The archeological consultant, SFPUC, ERO, and MLD shall have up to but not beyond six days of discovery to make all reasonable efforts to develop an agreement for the treatment of human remains and associated or unassociated funerary objects with appropriate dignity (CEQA Guidelines Section 15064.5[d]). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. Nothing in existing State regulations or in this mitigation measure compels the SFPUC and the ERO to accept recommendations of an MLD. The archeological consultant shall retain possession of any Native American human remains and associated or unassociated burial objects until completion of any scientific analyses of the human remains or objects as specified in the treatment agreement if such as agreement has been made or, otherwise, as determined by the archeological consultant and the ERO.

Final Archeological Resources Report. The archeological consultant shall submit a Draft Final Archeological Resources Report (FARR) to the ERO and SFPUC that evaluates the historical significance of any discovered archeological resource and describes the archeological and historical research methods employed in the archeological testing/monitoring/data recovery program(s) undertaken. The FARR shall include new updated DPR forms, as applicable. Information that may put at risk any archeological resource shall be provided in a separate removable insert within the final report.

Once approved by the ERO, copies of the FARR shall be distributed as follows: Northwest Information Center (NWIC) of the California Historical Resources Information System shall receive one (1) copy and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The Environmental Planning division of the Planning Department shall receive one bound, one unbound and one unlocked, searchable PDF copy on CD of the FARR along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest in or the high interpretive value of the resource, the ERO may require a different final report content, format, and distribution than that presented above.

Operation

Like the approved project, modified project operations would have no impact on tribal cultural resources.

Conclusion

In summary, with implementation of Mitigation Measure M-CR-2a (Archeological Testing, Monitoring, and/or Data Recovery), construction and operation of the modified project would not result in significant impacts on tribal cultural resources and would not require new mitigation measures.

Cumulative Impacts

The same geographic scope for cumulative impacts addressed in Section 5.1, Cultural Resources, applies to tribal cultural resources, which is the immediate vicinity of locations where the approved project would cause ground disturbance. As discussed in Section 4.2, Cumulative Projects in the Site Vicinity, and presented in Appendix A, the list of potential cumulative projects at the Southeast Plant has been revised since the certification of the FEIR. The following projects could result in cumulative impacts on tribal cultural resources due to their location within the Southeast Plant and potential for ground disturbance:

- Southeast Plant Headworks Replacement Project
- SEP Power Feed and Primary Switchgear Upgrades

Excavation for these projects is largely completed and has not exposed significant buried archaeological or tribal cultural resources to date. The cumulative ground disturbance of the modified project and cumulative projects in the vicinity could cause significant cumulative impacts on tribal cultural resources because the modified project would expand the area of ground disturbance and there remains the potential that pockets of intact midden or lenses of buried/submerged midden, undetected in relatively widely spaced coring in the vicinity, could be present in the expanded area. The modified project's contribution to cumulative impacts on tribal cultural resources would not be considerable with implementation of the public interpretation program that is currently under preparation in consultation with the Native American community as required under Mitigation Measure M-CR-2a (Archeological Testing, Monitoring, and/or Data Recovery).

5.3 Transportation and Circulation

Biosolids Digester Facilities Project FEIR Findings

The FEIR found that the approved project would have less than significant impacts related to the following significance criteria regarding transportation and circulation:

- Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit, non-motorized travel, and relevant components of the circulation system (including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit);
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Result in inadequate emergency access; or
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The FEIR determined that, due to location, the approved project would have no impact to change air traffic patterns. The FEIR also determined that the approved project would not permanently affect any roadways or highways included in the San Francisco Congestion Management Program, and therefore would have no impact related to conflict with an applicable congestion management program. These criteria were not addressed further in the FEIR.

Construction

The FEIR evaluated whether construction-related traffic comprised of truck and worker trips to and from the approved project site and staging areas, as well as detours and road closures could interfere with pedestrian, bicycle, or vehicle circulation; increase potential traffic hazards; or cause inadequate emergency vehicle access. The FEIR found that even during the periods of maximum truck demand (71 daily trucks and 212 daily construction workers) or maximum construction worker demand (28 daily trucks and 550 daily construction workers), the project would not result in significant impacts related to traffic circulation, interfere with pedestrian or bicycle circulation, or their accessibility to adjoining areas, that the reroute of the 23 Monterey would not substantially affect accessibility to public transit or transit operations, and that emergency vehicles would not be substantially affected by the temporary closure of a two-block segment of Jerrold Avenue. The FEIR also determined that construction related activities would not affect nearby freight rail operation or parking conditions.

Regarding traffic safety hazards, as discussed in the FEIR, the approved project includes establishing a site-specific Traffic Control Plan that conforms to the SFMTA's Blue Book, which requires the implementation of construction safety measures like proper advance warning and detour signage, identification of approved construction truck routes, and coordination with public service providers like the fire department. The approved project also establishes that the SFPUC would coordinate traffic control across the various projects at the Southeast Plant that would be constructed concurrently. With these measures in place, the FEIR determined that construction of the approved project would have a less-than-significant impact on transportation and circulation.

The FEIR did not identify any significant construction related project impacts on traffic circulation, transit, pedestrians, bicyclists, parking, and freight rail service (Impact TR-1). The FEIR also determined that emergency vehicle access in the project vicinity would not be substantially affected by project construction-related activities (Impact TR-2). As a result, the FEIR did not require any transportation mitigation measures for the construction of the approved project.

Operation

The FEIR established that the operational impacts of the approved project, with approximately less than 36 daily trucks and about 280 daily operation and maintenance workers, both similar to existing conditions, would not cause substantial additional vehicle miles traveled (VMT), substantially induce automobile travel, or cause or worsen traffic safety hazards (Impact TR-3).

The FEIR established that the operational characteristics of the approved project would be similar to existing conditions, with enhanced pedestrian and vehicle circulation conditions in the area, improved access to the site, without substantially affecting area-wide parking conditions or creating hazardous transportation conditions or significant delays affecting traffic, transit, bicycles, pedestrians, or emergency vehicles. The FEIR also determined that operation of the approved project would not cause substantial

additional VMT, substantially induce automobile travel, or affect freight rail service on the Quint Street spur tracks. Thus, the FEIR did not require any transportation mitigation measures for the approved project.

Modified Project Impacts

As described above, the SFPUC proposes to modify the approved project to construct an Operations, Engineering, and Maintenance building; a Mechanical Maintenance building; and a new utility enclosure at the Southeast Plant (i.e. the proposed modifications). As defined previously, the Biosolids Digesters Facilities Project (i.e. the approved project) together with the proposed modifications represents the modified project. In this section of the addendum, potential transportation and circulation related impacts of the modified project are compared to similar impacts of the approved project as disclosed in the FEIR (and in the subsequently approved minor project modifications plus addendum 1). Given that the period of maximum truck demand (site demolition and excavation) for the approved project occurred early in the construction schedule, the transportation and circulation analysis in this addendum considers the modified project in the context of the approved project's maximum construction worker demand (construction of superstructures), which represents a higher level of construction activity.

Freight rail car demand for hauling away unsuitable excavated soils during construction of the modified project would be the same as for the approved project. Furthermore, as with the approved project, operations and maintenance of the Southeast Plant under the modified project would not affect rail service on the Quint Street spur tracks, as disposal and deliveries of various materials to and from the site would continue to occur by truck, similar to existing conditions. Therefore, potential impacts to freight rail services are not further analyzed for the modified project.

The transportation and circulation analysis in this addendum follows the *Transportation Impact Analysis Guidelines* published by the San Francisco Planning Department in October 2019 (2019 SF Guidelines), as appropriate.

Construction

Construction of the proposed modifications (the operations, engineering, and maintenance buildings) would extend from February 2025 through July 2027 (substantial completion would occur from July through September 2027), which represents a 30-month construction period. The first two years of construction would overlap with other approved project construction activities, while the remainder represents a six-month extension of the current project construction schedule.[30] Work on the proposed modifications would not begin until February 2025, after the peak of construction workers associated with the approved project has already occurred. The period of peak construction activity on the proposed modifications would occur during a three-month overlap of construction phase 4 (Erection) and phase 5 (Architectural Finishes), starting in fall 2026. Remaining construction on the approved project during fall 2026 will be limited to work on the biogas utilization system. Fall 2026 represents a lower level of construction activity for the approved

[30] The FEIR identified a five-year construction schedule. In addendum 1 to the FEIR (biogas utilization system), the construction schedule for the project was extended one year, to December 2026, which has since been extended through January 2027; the modified project would extend that construction schedule to July 2027.

project compared to the maximum construction activity peak [31] identified in the FEIR. Prior to the start of construction of the proposed modifications, SFPUC would temporarily relocate the occupants and uses of SEP 850 and the temporary pre-fabricated trailers (SEP850A and SEP850B) to 1900 Jerrold Avenue. Temporary parking would be arranged for these workers primarily near 1900 Jerrold Avenue, or other sites already approved for use in the approved project, which would not substantially alter employee parking conditions. The workers would return to the Southeast Plant at the end of the construction period.

As with the approved project, most of the construction activities at the site would occur Monday through Friday from 7:00 a.m. to 4:30 p.m., the same days and time period as the approved project. Prior changes to the approved project extended the end date for construction staging as well as the length of the street closure along Jerrold Avenue to Phelps Street. The proposed modifications would further extend the construction schedule, including the closure of Jerrold Avenue, and add temporary construction worker vehicle parking, in an area large enough for approximately 90 construction worker vehicle parking spaces, at 2 Rankin Street (see Figure 1).

The proposed modifications would generate 13 daily trucks and 120 daily construction workers during the phase of maximum combined person and vehicle demand, which would occur at the end of the erection phase in combination with the beginning of the architectural finishes phase (a three-month period between September and November 2026). Construction trucks and worker vehicles would use the routes shown on Figure 7 of this addendum to access the site, instead of the routes shown in FEIR Figure 2-15, as approved by in a prior minor project modification.[32] The proposed routes differ from the routes in FEIR Figure 2-15 in the following ways:

- One block of Jerrold Avenue west of the Caltrain tracks would be closed to through traffic and vehicles instead take Rankin Street, McKinnon Avenue, and Toland Avenue to connect to the west
- Phelps Street would no longer be used for vehicle access

Interim truck delivery and off-haul rates for ongoing operations at the Southeast Plant would continue to be those shown in FEIR Figure 2-16.

An analysis was conducted to evaluate the travel demand during construction of the proposed modifications. **Table 3** compares the peak construction travel demand activity for the approved project to the peak construction activities of the modified project. [33] **Table 4** compares the two construction vehicle trip assignments during the a.m. and p.m. peak hours. No trip generation credit has been assumed for the proposed modifications; the travel demand analysis of the modified project prepared in support of this addendum is included as **Appendix E**.

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[31] The period of maximum construction activity (maximum construction workers) for the approved project consisted of 28 daily trucks and 550 daily construction workers and has already occurred. The expected level of construction activity for the approved project during Fall 2026 would be two daily trucks and 20 daily construction workers.[32] SFPUC Biosolids Digester Facilities Project Minor Project Modification 7 – Traffic on Jerrold, reviewed by San Francisco Planning Department September 1, 2020

[32] SFPUC Biosolids Digester Facilities Project Minor Project Modification 7 – Traffic on Jerrold, reviewed by San Francisco Planning Department September 1, 2020

[33] The maximum level of construction activity for the modified project (September through November 2026) includes those activities related to the proposed modifications (13 daily trucks and 120 daily construction workers), together with overlapping construction activities of the approved project (i.e. construction of the biogas utilization system; two daily trucks and 20 daily construction workers); see modified project travel demand memorandum in Appendix E.

Table 3 Approved Project and Modified Project Net-New Trip Generation – Daily and Peak Hour Person and Vehicle Trips

Project Version	Daily		AM/PM Peak Hour	
	Person trips	Vehicle trips	Person trips	Vehicle trips
Approved Project (Maximum Construction Workers)[34]	1,100	742	550	351
Modified Project[35]	280	206	140	93
Modified Project compared to Approved Project	25%	28%	25%	27%

SOURCE: FEIR; Adavant Consulting – December 2024

Table 4 Approved Project and Modified Project AM and PM Peak Hours Vehicle Trip Assignments [36]

Street Name	Location	AM Peak Hour			PM Peak Hour		
		Approved Project[37]	Modified Project[38]	Ratio of Modified Project over Approved Project	Approved Project	Modified Project	Ratio of Modified Project over Approved Project
Evans Av.	East of Phelps St	57	14	25%	0	27	-----
	West of Phelps St	67	33	49%	11	33	300%
	West of Rankin St	64	43	67%	8	43	538%
Jerrold Av	East of Phelps St	7	4	57%	7	4	57%
	West of Phelps St	25	4	16%	25	4	16%
Oakdale Av	East of Phelps St	111	6	5%	111	6	5%
	West of Phelps St	119	12	10%	119	12	10%
Phelps St	South of Evans Av	9	6	67%	9	6	67%
	North of Oakdale Av	9	6	67%	9	6	67%

SOURCE: FEIR; Adavant Consulting – December 2024 (Appendix E)

Construction Duration and Intensity

Construction of the proposed modifications would occur in six phases between February 2025 and July 2027, representing an approximately 12-month extension of the construction schedule for the approved

[34] See Table 4.6-10 and Table 4.6-12 of the FEIR.

[35] See Table 14 of the modified project travel demand memorandum in Appendix E.

[36] See Table 15 of the modified project travel demand memorandum in Appendix E.

[37] Technical Memorandum to the SFPUC, *Traffic Estimates Results at Selected Study Locations*, Adavant Consulting, December 16, 2018 (Table 5, Maximum construction workers, Scenario 5).

[38] See travel demand memorandum for the proposed modifications in Appendix E.

project.[39] The 60 daily construction workers would park at the proposed temporary surface lot located at 2 Rankin Street, north of Evans Avenue, which would have a capacity of approximately 90 parking spaces.

For the reasons that follow, the construction activities for the modified project would not be considered intense, as they relate to the transportation network. Construction trucks and worker vehicles would use the same routes as those currently approved and followed by construction trucks and construction worker vehicles, with the addition of an optional truck route using the Illinois Street Bridge, if necessary (see Figure 7). As shown in Table 3, with the proposed modifications, the modified project would result in an additional peak of construction activity occurring about two years after the construction workers peak of the approved project, but the new peak would generally result in a lower number of truck and construction worker trips than the approved project (less than 25 to 28 percent of the daily and peak hour values estimated for the approved project). The interaction between construction activities and the adjacent transportation network would primarily occur as trucks and construction workers access the site at the intersections of Phelps Street/Jerrold Avenue and Rankin Street/Evans Avenue. Table 4 presents the number of a.m. and p.m. peak hour vehicle trips generated by the modified project during the peak construction travel demand period along Phelps Street, Jerrold Avenue and Oakdale Avenue (September through November 2026). The number of vehicle trips generated by the modified project generally would be less than those generated by the approved project. During the p.m. peak hour the number of vehicle trips generated by the modified project on Evans Avenue would be about three to five times more than those generated by the approved project, due to the presence of the proposed construction worker parking lot at 2 Rankin Street; however, the modified project increase of approximately 30 to 40 vehicles per hour would not be substantial given the existing traffic volumes on Evans Avenue (about 800 to 900 vehicles per hour).

Potentially Hazardous Conditions and Accessibility During Construction

Construction staging for the proposed modifications would occur on-site, including on the already closed portion of Jerrold Avenue to Phelps Street. The modified project would not require changes to the approved detour routes, construction truck routes, changes to emergency vehicle access, or additional sidewalk or lane closures, beyond those already established under the approved project, but would add an optional truck route using the Illinois Street Bridge as shown on Figure 7. During the new peak of construction of the modified project, vehicular and truck access to the Southeast Plant would be similar to those evaluated in the FEIR for the approved project while traffic volumes on Jerrold Avenue, Phelps Street, Evans Avenue, and other nearby roadways would be lower. As in the approved project, increased traffic due to construction activities would result in temporary higher potential for vehicle-bicycle and vehicle-pedestrian conflicts at some locations, while construction detours may be an inconvenience to some bicyclist or pedestrians.

As in the approved project, the construction contractor for the proposed modifications would be required to prepare and implement a modified Traffic Control Plan that conforms to the approved Traffic Control Plan, as well as the City of San Francisco's Regulations for Working in San Francisco Streets (the "Blue Book"). The modified Plan would include changes, if necessary, to advance warning signage, as well as scheduling and monitoring of construction vehicle movements. Prior to implementation of any changes, the modified Traffic Control Plan would be reviewed by the SFMTA and the multi-agency Interdepartmental Staff Committee on Traffic and Transportation. In addition to the regulations in the Blue Book, the contractor would be responsible for complying with all city, state, and federal codes, rules and regulations.

[39] In addendum 1 to the FEIR (biogas utilization system), the construction schedule for the project was extended 1.5 years, to June 2026; the modified project would extend that construction schedule approximately one year longer.

Construction of the proposed modifications would be conducted in compliance with a Traffic Control Plan, as well as the Blue Book regulations which require the implementation of construction safety measures with respect to bicyclists and pedestrians, such as providing alternative access routes, vehicle, bicycle and pedestrian detours with adequate signage, and transit stop relocation, if necessary. As in the approved project, implementation of the multi-agency-approved traffic control plans and compliance with construction safety regulations would ensure that construction activities are conducted safely and with the least possible interference with vehicles, pedestrians, bicyclists, and public transit, as well as reduce emergency vehicle access disruptions and safety hazards.

For these reasons, construction-related activities of the modified project would not create potentially hazardous conditions or substantially interfere with accessibility; and any such impacts would remain less than significant.

Potential Public Transit Delays During Construction

Muni's 23 Monterey bus route previously traveled through the project site along Jerrold Avenue and was permanently rerouted to Palou and Oakdale Avenues in February 2020 by SFMTA, with the objective of reducing bus travel time, improving service reliability, and increasing ridership.[40] The reroute of the 23 Monterey took place ahead of the start of the temporary multi-year closure of Jerrold Avenue, between Phelps Street and the Caltrain tracks, that was implemented as part of the construction of the approved project in January 2021. In addition to the 23 Monterey, Muni's 24 Divisadero and 44 O'Shaughnessy routes also operate on Palou Avenue, while the 19 Polk buses travel along Evans Avenue; Muni Metro T Third line operates in the median of Third Street.

All of these transit routes have been operating in the project vicinity since the start of construction of the approved project, and their alignment has not changed. No construction would occur on any of these streets as part of the modified project. Furthermore, as described above, the modified project represents a lower level of peak construction intensity compared to the approved project and, although the number of construction vehicle trips generated by the modified project on Evans Avenue where the 19 Polk route operates would be higher than those generated by the approved project, they would only represent about 5 percent of the existing total traffic volume on Evans Avenue.[41] Therefore, there would not be any transit rerouting, stop relocation, additional congestion, or transit delay as a result of the construction of the modified project.

For the above reasons, and as with the approved project, construction activities associated with the modified project would not substantially delay transit (less than significant impact).

Conclusion Regarding Construction Impacts

For the reasons described above, construction of the modified project would not result in significant impacts related to transportation and circulation greater than those identified in the FEIR. Moreover, the modified project would not result in new significant construction-related transportation and circulation

[40] SFMTA had found that providing service along Jerrold Avenue added five minutes of bus travel time (25 percent of total) through the Bayview area, while serving only 10 percent of the Bayview transit customers. See https://www.sfpublicworks.org/sites/default/files/Palou%20Avenue%20factsheet.pdf ; last accessed July 5, 2024.

[41] Traffic volume increases or decreases of about 5 percent are generally considered typical, due to daily or seasonal traffic pattern changes.

impacts that were not previously identified in the FEIR (Impacts TR-1 and TR-2), would not result in more severe impacts than those identified in the FEIR, and would therefore not require new mitigation measures.

Operations

Similar to the approved project, the modified project does not involve any changes to the transportation network that would create potentially hazardous conditions or interfere with accessibility. The modified project would not change the features of the approved project that would alter the transportation network, such as the redesign and reconstruction of the segment of Jerrold Avenue between Phelps Street and the Caltrain tracks, and implementation of a new second gate to the Southeast Plant via Rankin Street, to facilitate the movement of truck traffic to and from the Southeast Plant. After construction of the modified project is complete, Southeast Plant workers temporarily relocated to 1900 Jerrold Avenue would return to the Southeast Plant, and vehicular, transit, pedestrian and bicycle circulation in the project vicinity would be the same as under the approved project. In addition, modified project operations would not result in an increase in vehicle, pedestrian or bicycle trips compared to the approved project, as the number of operations staff (about 280 people for the entire plant) and haul and delivery trucks are expected to be the same. Consistent with the approved project, the modified project would not result in changes to the overall treatment capacity of the Southeast Plant.

Potentially Hazardous Conditions and Accessibility

Modified project operations would not result in a substantial increase in pedestrian and bicycle trips, overcrowding or an increased demand for pedestrian and bicycle facilities compared to the approved project because the number of operations staff at the Southeast Plant would not increase.

Compared to the approved project, the modified project would not change conditions for people walking, bicycling or driving, or public transit operations and emergency access routes because the modified project would not introduce new design features or change the street network compared to the approved project, therefore; driving, walking, bicycling, public transit operations and emergency vehicle access in the area would remain the same as those of the approved project.

Potential Public Transit Delay

As with the approved project, with implementation of the modified project, the existing operations staff of about 280 people for the entire Southeast Plant would not change, and therefore the modified project would not result in a need for additional transit routes or substantially increase ridership on nearby Muni bus routes (e.g., 23 Monterey, 19 Polk, 24 Divisadero) or the T Third light rail line in the project vicinity. Similar to the approved project, modified project operation would not substantially affect operations of the nearby Muni routes.

Cause Substantial Additional VMT or Substantially Induce Automobile Travel

The modified project has the same transportation network features as the approved project. In addition, the modified project operations would not increase operations staff at the Southeast Plant and would require the same number of daily haul and delivery trucks as the approved project, and therefore would not substantially increase the total VMT associated with operations-related vehicle trips (less than significant impact).

Conclusion Regarding Operations Impacts

Operation of the modified project would be similar to the approved project conditions, with no increase in the total number of employees or haul and delivery trucks at the Southeast Plant. Therefore, for the reasons described above, the modified project would not result in significant impacts related to additional vehicle miles traveled (VMT), induced automobile travel, traffic safety hazards, or public transit delays greater than those identified in the FEIR. Moreover, operation of the modified project would not result in new significant transportation and circulation impacts that were not previously identified in the FEIR (Impact TR-3), would not result in more severe impacts than those identified in the FEIR, and would not require new mitigation measures.

Cumulative Impacts

Existing and probable future projects listed in Appendix A could contribute to cumulative impacts of the modified project related to transportation and circulation. Similar lists are presented in Table 4.1-1 (Section 4.1, Overview) of the FEIR and Appendix A in addendum 1 for the approved project. The geographic scope for the analysis of cumulative transportation impacts generally includes the sidewalks, roadways and transit network adjacent to the work areas.

Approved Project Analysis

According to the FEIR, approved project construction was expected to begin in February 2018 and end in January 2023, a five-year construction duration. Actual construction started in January 2020, and the recently approved project modification that was the subject of addendum 1 to the FEIR (biogas utilization system) extended the construction schedule for the approved project by about 1.5 years, to June 2026. The FEIR established that construction-related impacts of the approved project in combination with past, present and other cumulative projects, would be less than significant, and that no mitigation measures would be required. Similarly, it also established that the cumulative impacts resulting from the approved project operation, in combination with past, present, and probable future projects, would also be less than significant, and therefore no mitigation measures would be required.

Comparison of the Modified Project to the Approved Project

Eleven of the 21 projects that could contribute to cumulative impacts of the modified project, presented in Appendix A, were also included in the 40 cumulative project list presented in Table 4.1-1 of the FEIR, including major developments such as the San Francisco Market (previously known as the SF Wholesale Produce Market) and the San Francisco Gateway projects. Those projects that are not included in the current cumulative project list have already been built, or their construction has either been cancelled or extended beyond the expected construction period of the modified project.

Construction

Within the project site vicinity, construction of the cumulative projects identified above may overlap with each other and with the modified project (through September 2027)[42]. Like the approved project, sponsors and construction managers of projects considered in the cumulative analysis would be required to coordinate with various City departments, such as the SFMTA and Public Works, comply with the SFMTA

[42] Construction of the proposed modifications would extend from February 2025 through July 2027; substantial completion (i.e. on-site testing work) would occur from July through September 2027.

"Blue Book" regulations, and construction activities affecting City streets are required to coordinate any temporary sidewalk and travel-lane closures to develop plans that would address construction-related vehicle routing, traffic control, and pedestrian and bicycle movements adjacent to the construction area.

Construction of the San Francisco Gateway project, which is located to the southwest of the project site, may overlap with construction of the modified project for a period of about 23 months, while construction of the San Francisco Market, located immediately to the west of the project site, may overlap with construction of the modified project for a period of about 30 months. Construction activities for the Quint-Jerrold Connector Road could also overlap with the construction of the modified project for about 30 months. All of these construction activities would occur on streets to the west of the Caltrain tracks, without vehicular or pedestrian access to the project site, because Jerrold Avenue would remain closed during construction of the modified project. Furthermore, all three projects were included as part of the cumulative transportation impact analysis for the approved project.

Construction of several projects sponsored by the SFPUC would take place at the Southeast Plant, or in its immediate vicinity. These include the HVAC and Mechanical Upgrades and Maintenance Building (SEP 940) Interim Improvement. Consistent with SFPUC procedures, all these projects would include development of a construction management plan including for traffic, consistent with SFMTA requirements, taking into consideration other concurrent construction projects in the area, including the proposed modifications, if approved.

Non-SFPUC cumulative projects, such as the Potrero Power Station, 1399 Marin Transit Service Operations and Maintenance Plan, and 3433 3rd Street commercial building, are all located approximately 0.5 miles or further from the project site, and therefore, their construction activities would not overlap spatially in proximity with those of the modified project.

Although the Islais Creek Bridge Project to be undertaken by Public Works is located approximately 0.6 miles from the project site, the replacement of the bridge would involve the closure of Third Street to all vehicles and people walking or bicycling for approximately 24 months (spring 2026 to spring 2028). Thus, the effects associated with the Third Street closure would temporarily affect the construction trucks and worker vehicle routes shown in Figure 7. As part of this project, Public Works would work with the SFMTA to develop a vehicle, transit, bicycle, and pedestrian detour plan where most of the vehicle traffic would be diverted to nearby streets, including Evans Avenue and Illinois Street, and the remainder would use freeways, including U.S. 101 and I-280. The Islais Creek Bridge Project environmental analysis[43] found that construction of the Islais Creek Bridge Project, which would include a SFMTA approved construction management plan, in combination with cumulative projects,[44] would not contribute to any potentially significant transportation related impacts.

Conclusion Regarding Cumulative Transportation Impacts During Construction

For the reasons described above, construction of the modified project, in combination with cumulative projects, would not create potentially hazardous conditions for people walking, bicycling, or driving, or public transit operations; or interfere with emergency access or accessibility for people walking or bicycling,

[43] Draft Environmental Impact Report Islais Creek Bridge Project, November 29, 2023; San Francisco Planning Case No. 2022-000112ENV, Draft EIR public comment period: November 30, 2023 –January 22, 2024.

[44] The nearby project list used in the cumulative analysis of the Islais Creek Project includes the approved BDFP. As described above, the number of construction vehicle trips for the modified project would be less than those of the approved project.

and cumulative transportation impacts during construction would be less than significant. Therefore, the modified project would not result in any new significant construction-related impacts in addition to those identified in the FEIR (Impact C-TR-1), would not substantially increase the severity of a significant impact identified in the FEIR, and would not require new mitigation measures.

Operation

Potentially Hazardous Conditions and Accessibility

Cumulative projects and projected citywide growth would increase the number of people walking, bicycling, driving, or riding transit on streets nearby the project site. Under cumulative conditions, there would be a projected increase in vehicles on the streets in the proximity of the project site, primarily due to the San Francisco Market and the San Francisco Gateway projects; there would be no increase in the approved project operation staff of about 280 people resulting from the modified project, and the number of haul and delivery trucks would be the same as with the approved project. The identified cumulative projects would be required to conform to the requirements of the Better Streets Plan, Transit-First Policy, and Vision Zero, and thus would adhere to planning principles that emphasize providing convenient connections and safe routes for people walking and bicycling.

The non-SFPUC cumulative projects would enhance accessibility for people walking and bicycling in the vicinity of the project site. The San Francisco Market and the San Francisco Gateway projects would construct new sidewalks adjacent to their sites and would include intersection improvements such as crosswalks and traffic controls (e.g., stop signs). In addition, the San Francisco Market project would include a new east-west vehicle, pedestrian, and bicycle connection (Innes Avenue Extension) to replace the permanent closure of Jerrold Avenue between Toland and Rankin Streets. The Quint-Jerrold Connector Road project would reestablish a connection between Oakdale and Jerrold Avenues along the west side of the Caltrain tracks. The roadway would include one travel lane each way and a new sidewalk on the west side of the roadway, enhancing circulation for vehicular, bicycle and pedestrian travel in the surrounding area.

None of the cumulative projects would include features that would substantially affect vehicle circulation in the project vicinity or impede emergency access compared to existing conditions, and the new Islais Creek bridge would result in no changes to Third Street from existing conditions, regarding the number of travel lanes, travel routes, or access for emergency vehicles. As noted above, the Quint-Jerrold Connector Road would reestablish vehicle travel between Oakdale and Jerrold Avenues. Prior to finalizing the design and dimensions of any planned transportation network changes under city jurisdiction, the fire and police departments' staff would review and approve streetscape modifications, as required through the Interdepartmental Staff Committee on Traffic and Transportation review process, so that emergency vehicle access is not impeded.

Based on the results of the transportation analyses conducted for the largest cumulative projects in the vicinity of the Southeast Plant (San Francisco Market Project[45] and San Francisco Gateway Project[46]), the planned transportation network improvements that would be constructed as part of the cumulative projects would accommodate the expected cumulative increases in vehicles, and travel or access for people walking

[45] San Francisco Market, Addendum 2 to Mitigated Negative Declaration, Final Report, July 21, 2022; San Francisco Planning Case No. 2009.1153ENV-03

[46] San Francisco Gateway Project 749 Toland Street and 2000 McKinnon Avenue, Draft EIR, August 2, 2023; San Francisco Planning Case No. 2015-012491ENV

or bicycling, and emergency vehicles would not be impeded. Therefore, the modified project, in combination with cumulative projects, would not create potentially hazardous conditions for people bicycling, walking or driving, or for transit operations, or impede access for people walking or bicycling or for emergency vehicles, and cumulative transportation impacts related to potentially hazardous conditions and accessibility would be less than significant.

Potential Public Transit Delay

As described above, there are no bus routes currently operating adjacent to the project site. The nearest Muni service includes the 19 Polk operating on Evans Avenue, approximately 0.25 miles to the north, and the 23 Monterey operating on Palou Avenue (east of Industrial Street) and Oakdale Avenue (west of Industrial Street),[47] approximately 0.25 miles to the south, and under cumulative conditions transit operations in the modified project vicinity would remain the same as under existing conditions. In addition, none of the cumulative projects include transportation features that could delay transit once they become operational (e.g., roadway lane reductions on streets with transit routes).

The San Francisco Market and the San Francisco Gateway projects would generate new vehicle trips, however, vehicles would primarily travel on streets that do not contain transit (e.g., Jerrold Avenue, Toland Street, Rankin Street, Selby Street), on streets that have limited segments with transit (e.g., Oakdale Avenue, Industrial Street), or on streets with exclusive transit right-of-way (e.g., Third Street). There would be no transit service on the Quint-Jerrold Connector Road, and the Islais Creek Bridge Project would not result in changes to the existing transportation network or transit service at the completion of construction. Operation of the modified project would result in the same number of vehicle or transit trips as the approved project, so the modified project would not result in new or more severe cumulative transit delay impacts in combination with the growth from the San Francisco Market and the San Francisco Gateway projects. There is no transit service on Jerrold Avenue adjacent to the Southeast Plant, and the increase in vehicular traffic due to the operation of the various SFPUC cumulative projects at the Southeast Plant would not be discernible from previously analyzed cumulative background traffic, because the modified project would have the same total number of employees or trucks as the approved project.[48] Therefore, none of these cumulative projects would result in transit delay. Thus, for the reasons stated above, a significant cumulative impact related to substantial transit delay would not result from implementation of the identified cumulative projects and the modified project.

Cause Substantial Additional VMT or Substantially Induce Automobile Travel

Operation of the modified project would result in the same number of vehicle trips as the approved project (i.e., the modified project would not generate additional vehicle trips) because it would not increase operations staff, and therefore the modified project would not cause additional VMT or induce automobile travel. The San Francisco Market and the San Francisco Gateway projects would cause an increase in VMT; however, both projects were included in the cumulative analysis of the approved project, and the FEIR established that that the cumulative impacts related to VMT and induced automobile travel would be less than significant. In addition, the FEIR found that cumulative impacts related to VMT and induced automobile travel due to the opening of the Quint-Jerrold Connector Road and the operation of various SFPUC projects at or in the vicinity of the Southeast Plant would also be less than significant. The Islais Creek Bridge Project

[47] Muni's 23 Monterey bus route previously traveled through the project site along Jerrold Avenue and was permanently rerouted to Palou and Oakdale Avenues in February 2020 by SFMTA, with the objective of reducing bus travel time, improving service reliability, and increasing ridership.

[48] The two projects at the Southeast Plant not included in the cumulative transportation analysis presented in the FEIR are a) SEP HVAC and Mechanical Upgrades and b) SEP 545 Electrical Controls Upgrade, which do not include changes to operational staff or vehicle demand.

is an infrastructure project that would result in no changes from existing conditions regarding the number of travel lanes, travel routes, or access to local land uses, and therefore would not cause substantial additional VMT or induce automobile travel. Thus, for the reasons stated above, a significant cumulative impact related to VMT would not result from implementation of the identified cumulative projects and the modified project.

Conclusion Regarding Cumulative Transportation Impacts During Operation

In conclusion, the modified project in combination with other cumulative projects would not result in significant cumulative impacts related to substantial additional VMT, substantially induce automobile travel, or cause or worsen traffic safety hazards, or result in public transit delays. Therefore, impacts from operation of the modified project in combination with other cumulative projects would be less than significant, and no mitigation measures would be required. Thus, operation of the modified project would not result in any new significant cumulative impacts in addition to those identified in the FEIR (Impact C-TR-2), would not substantially increase the severity of a significant cumulative impact identified in the FEIR, and would not require new mitigation measures.

5.4 Noise and Vibration

Biosolids Digester Facilities Project FEIR Findings

The FEIR found that the approved project would have potentially significant impacts related to the following significance criteria regarding noise and vibration:

- Result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies
- Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project

The FEIR found that the approved project would have less than significant impacts related to: exposure of persons or structures to or generation of excessive groundborne vibration or groundborne noise levels or substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. The FEIR determined the approved project would have no impact related to being within an airport land use plan area or in the vicinity of a private airstrip or being affected by existing noise level because the project site is not within an airport land use plan area or in the vicinity of a private airstrip.

Construction Noise

As discussed in the FEIR, Section 2908 of the Noise Ordinance allows construction activities between 7:00 a.m. and 8:00 p.m. and Section 2907 limits noise from any individual piece of construction equipment, except impact tools that are exempt, to 80 dBA at 100 feet (equivalent to 86 dBA at 50 feet). The FEIR evaluated the various types of non-impact construction equipment to be used and found that only concrete saws would exceed the 80 dBA noise limit of Section 2907, but concluded that this potentially significant impact on noise would be reduced to a less-than-significant level through implementation of the noise controls specified in Mitigation Measure M-NO-1a (Shielding of Concrete Saw Operations).

The FEIR defined a substantial temporary or periodic increase in ambient noise levels as noise that would be greater than 10 dBA above ambient at sensitive receptors. The FEIR found that construction noise level

would only exceed this threshold at the former Southeast Community Center daycare center[49] and the closest residential receptor at 1700 Kirkwood Avenue (at the corner of Phelps Street) from activities at the Southeast Greenhouses staging area. The FEIR concluded that implementation of the noise controls specified in Mitigation Measure M-NO-1b (Construction Noise Control Measures at Southeast Greenhouses Staging Area) would reduce this impact to a less-than-significant level. Noise from construction at other locations throughout the site was found to be lower than the applied 10 dBA above ambient threshold.

Construction Vibration

The FEIR found that vibration from construction and operation would have a less-than-significant impact on buildings and people because vibration would not exceed the 0.5 inches per second peak particle velocity (in/sec PPV) threshold for structural damage at the nearest buildings or the 0.1 in/sec PPV threshold for human annoyance at the nearest sensitive receptor.

Construction Roadway Noise

The FEIR determined that noise from construction traffic would be less than significant because a traffic control plan would establish truck routes that minimize truck traffic in residential areas and that traffic along Phelps Street where there are residences would primarily be worker vehicles accessing the Southeast Greenhouses staging area (not trucks).

Operation Noise, including Roadway Noise

The FEIR determined that operational noise from the new facilities and additional truck trips would be less than significant because the estimated maximum combined noise level of 59 dBA[50] at the nearest residential receptor at 1700 Kirkwood Avenue would not exceed the minimum noise limit applicable under Section 2909(d) and there would only be a small change in trucking that would occur on Jerrold Avenue, Rankin Street, and Evans Avenue where there are no residential receptors or noise-sensitive uses.

Modified Project

Construction Noise

Construction activities at the project site would occur Monday through Friday from 7 a.m. to 4:30 p.m., and at times until 8 p.m. as needed, consistent with the City's noise ordinance (San Francisco Police Code). Construction could also occur on Saturdays and Sundays when needed. Work would occur on holidays and 24 hours per day only if needed for critical facility connections, similar to the approved project. The proposed modifications would include demolition of building SEP 850, removal of the temporary, pre-fabricated trailers SEP 850A and SEP 850B, removal of the adjacent surface parking lot, and demolition of an existing generator (500 kilovolt-amperes), a transformer and associated electrical equipment (SS 4A/4B and SEP 990). Demolition would be followed by construction of the Mechanical Maintenance building (SEP 603) and the Operations, Engineering, and Maintenance building (SEP 914), a utility enclosure for a new chiller, and two new boilers located inside building SEP 930 to service buildings SEP 930 and SEP 940. Two new generators (750 kilovolt-amperes) would be installed for use by the new operations and maintenance buildings. In addition, an upgraded transformer and associated electrical equipment (SS 4A/4B and SEP 990)

[49] The former Southeast Community Center daycare center has relocated to 1550 Evans and is thus no longer a sensitive receptor that could be impacted by the construction of the proposed modifications. Therefore, it is not discussed further.

[50] A-weighted decibel, reported an L_{eq} in the FEIR. This represents the acoustical energy over an operational hour.

would be installed for the new operations and maintenance buildings, as well as for buildings SEP 930 and SEP 940.

Equipment similar to that listed in the FEIR would be used during construction of the proposed modifications. Like the approved project, the occasional use of a concrete saw under the modified project would generate noise in excess of the 80 dBA L_{max} threshold at 100 feet established under Section 2907 of the Police Code, which would be a significant impact. However, implementation of **Mitigation Measure M-NO-1a (Shielding of Concrete Saw Operations)**, as presented below in full, would reduce construction noise of the modified project to a less-than-significant level by requiring shielding when concrete saw operations are conducted within 100 feet of a sensitive receptor.

> **Mitigation Measure M-NO-1a: Shielding of Concrete Saw Operations**
>
> Project contractors shall erect temporary shielding when concrete saw operations are conducted within 100 feet of a sensitive receptor. Shielding shall be sufficient to reduce noise levels to 80 dBA at a distance of 100 feet (an approximate 5 dBA reduction), consistent with the noise limit specified in Section 2907 of the Noise Ordinance.

The two noisiest pieces of demolition equipment associated with the new elements of the modified project (concrete saw and tractor) would generate a combined noise level of 85 dBA, L_{eq} at 50 feet. The nearest receptor to the proposed modifications construction area would be the residence at 1700 Kirkwood Avenue, approximately 250 feet from the parking lot to be demolished, where the measured ambient daytime noise level is 61 dBA. At this distance, noise from demolition activities would be attenuated to 71 dBA. This noise level would be below the 90-dBA criterion set by the Federal Transit Administration and would also not exceed the 10-dBA-above-ambient-noise-level criterion at this receptor.[51] Therefore, noise from demolition activities associated with the modified project would be less than significant.

The noisiest construction equipment that involves drilling for pile foundations would be a tractor and a drill rig. The nearest receptor to the modified project construction area would be the residence at 1700 Kirkwood Avenue, approximately 250 feet from the modified project site. At this distance, noise from foundation construction activities would be attenuated to 68 dBA. This noise level would be below the 90- dBA criterion set by the Federal Transit Administration and would also be less than 10-dBA-above-ambient-noise-level criterion at this receptor. Therefore, noise from construction activities associated with the modified project would be less than significant. The noisiest equipment for all other phases of construction would be quieter than the equipment used for drilling pile foundations and therefore all other phases of construction would result in less than significant noise impacts.

Construction Vibration

Equipment similar to that listed in the FEIR would be used during construction of the modified project. No pile driving is proposed as part of the modified project and all piles would be installed using drilling methods. The construction equipment with the greatest potential for generating vibration would be a vibratory roller that could be used for compaction. At a distance of 250 feet (at the nearest vibration-sensitive receptor), vibration from a vibratory roller would be approximately 0.007 in/sec PPV, which would be below the human annoyance threshold of 0.1 in/sec PPV, as applied in the FEIR. Therefore, construction

[51] Ambient noise measurement at 1663 Kirkwood Avenue. Refer to FEIR Table 4.7-2, Summary of Noise Monitoring in Project Vicinity.

activities under the modified project would have a less than significant impact with respect to human annoyance from construction-related vibration.

With respect to the potential for building damage, the nearest off-site structure to the construction areas of the modified project would be across Phelps Street, approximately 50 feet from construction work areas. At this distance, vibration from a vibratory roller would be approximately 0.07 in/sec PPV, which would be below both the historic building damage threshold of 0.25 in/sec PPV and the building damage threshold of 0.5 in/sec PPV, as applied in the FEIR. The nearest onsite structure is Building 930, located approximately 20 feet northeast of the proposed internal roadway. Construction of the internal roadway could require use of a vibratory roller. At this distance, vibration from a vibratory roller would be approximately 0.29 in/sec PPV, which is below the building damage threshold of 0.5 in/sec PPV.

The nearest on-site historic structure would be Building 870 which is approximately 90 to 100 feet west of the proposed work areas. Building 870 is characterized as a contributor to the historic district. However, as stated in the FEIR, the 0.25 in/sec PPV threshold was not applied to SEP buildings because, despite their historic status, all SEP buildings have been engineered for industrial use and lack fragile construction elements, such as plastered or masonry walls that could be subject to cosmetic damage. Instead, a threshold level of 0.5 in/sec PPV is applied to SEP buildings. At a distance of 90 feet, vibration levels from operation of a vibratory roller would be 0.03 in/sec PPV. Therefore, construction activities under the modified project would have a less-than-significant impact with respect to building damage from construction-related vibration.

Construction Roadway Noise

Like the approved project, the modified project would also require construction worker trips as well as vendor trips to bring project materials to the construction site. During construction, vehicle trips would use Jerrold Avenue (west of the site), Phelps Street (north of Jerrold Avenue), Evans Avenue, Third Street, and Cesar Chavez Street for access to the Highway 101 and I-280 freeways. There are no residential uses located along these routes. Since construction-related traffic noise increases on these streets would not adversely affect any residential sensitive receptors, construction-related traffic noise increases of the modified project would be less than significant.

Operational Noise including Roadway Noise

Under the modified project, a new chiller would be located within a utility enclosure outside of and adjacent to building SEP 930. The two proposed new boilers to be located inside SEP 930 would not generate substantial noise (because they would be enclosed indoors), but the chiller could generate a sound power level of approximately 68 dB. The chiller enclosure would be approximately 320 feet away from the nearest noise-sensitive receptor (1700 Kirkwood Avenue). At this distance, the noise level from the chiller would be approximately 27 dBA, which would be well below the nighttime standard of 60 dBA (45 dBA interior) at the nearest receptor. When the chiller is considered conservatively in combination with all other operational noise sources from the modified project, the noise level would be 59 dBA (refer to FEIR Tables 4.7-10 and 4.7-11 for the project's other operational noise sources), which would still be below the nighttime standard at the nearest residence. Therefore, operational noise from stationary sources associated with the modified project would be less than significant.

Under the modified project, there would be no additional employees and no increase in vehicle trip generation. Therefore, the modified project would have no impact with respect to roadway noise during operation.

The proposed two new emergency generators would be tested for maintenance purposes during daytime hours approximately one hour per week and would replace a single emergency generator currently in use. The noise ordinance does not regulate the testing of emergency backup generators. Further, the San Francisco Planning Department considers maintenance operations of less than three generators to be a less than significant noise impact. Consequently, upgrade and replacement of the existing emergency generator with two new emergency generators would not result in a significant operational noise impact.

Conclusion

In summary, with implementation of Mitigation Measure M-NO-1a (Shielding of Concrete Saw Operations), construction of the modified project would not result in significant noise and vibration impacts greater than those identified in the FEIR. Moreover, construction and operation of the modified project would not result in new significant noise and vibration impacts that were not previously identified in the FEIR; would not result in more severe impacts than those identified; and would not require new mitigation measures.

Cumulative Impacts

The FEIR determined that cumulative construction noise from the approved project, in combination with construction noise from cumulative projects, would result in a significant cumulative impact on the nearest residential receptors (east of Phelps Street and south of Jerrold Avenue) during use of the Southeast Greenhouses Staging Area, but that implementation of Mitigation Measure M-NO-1b would reduce the approved project's contribution to less-than-cumulatively considerable (less-than-significant) levels. The FEIR did not identify other potentially significant cumulative noise and vibration impacts.

With regard to the modified project, significant cumulative construction-related noise increases could occur if any nearby cumulative projects were to be constructed at the same time as the modified project and would affect the same sensitive receptors. As discussed above, the nearest sensitive receptor is the residence at 1700 Kirkwood Avenue. Among the cumulative projects identified in Appendix A, the following could result in cumulative noise impacts due their location adjacent to the modified project site and construction schedule:

- Headworks Replacement Project
- Power Feed and Primary Switchgear Upgrades
- Repair and Replacement Treatment Plant Improvement Projects
- Quint-Jerrold Connector Road
- Electrical Controls Upgrade (SEP 545)
- HVAC and Mechanical Upgrades

The Southeast Plant Headworks project site is located north of the modified project site and farther from sensitive receptors. Because the loudest construction activities – excavation, pile driving, and building erection - have been completed, remaining construction noise from the Headworks project would be lower.

Conservatively assuming that remaining activities for the Headworks project could be as loud as the initial construction phases, which in the FEIR was estimated at up to 58 dBA (L_{eq}) at the 1700 Kirkwood Avenue sensitive receptor, the combined noise levels with the modified project would be 71 dBA (i.e., when added to the project-specific construction noise, there would be no incremental noise increase). As discussed above, this noise level (71 dBA) would be below the 90-dBA criterion set by the Federal Transit Administration and would also not exceed the 10-dBA-above-ambient-noise-level criterion at the nearest sensitive receptor. The Quint-Jerrold Connector Road Project would be physically separated from the modified project site by the existing railroad embankment which would buffer sensitive receptors to the south and east from roadway construction noise. Given this barrier separating the projects, no cumulative noise increases from these two overlapping construction projects would occur at sensitive receptors located south and east of the modified project site. The other projects at the Southeast Plant are not expected to contribute substantially to cumulative construction-related noise impacts at the closest receptors because they would replace or upgrade existing equipment, avoid impact pile driving, or involve construction that would occur inside existing building enclosures. Therefore, the modified project in combination with cumulative projects would not result in a significant cumulative construction noise impact.

With respect to cumulative operational noise, as discussed above, the noise level from the chiller associated with the modified project would be approximately 27 dB at the 1700 Kirkwood Avenue receptor by itself and 59 dBA when considered in combination with all other operational noise sources from the modified project. This contribution to the existing noise level would be nominal and would not further elevate either the existing noise level at the receptor or the noise level predicted from all elements of the other projects at the Southeast Plant (59 dBA), which would be below the applicable nighttime noise standard. Therefore, there would be no significant cumulative operational noise impact with the addition of the sources under the modified project.

In summary, the modified project would not result in new significant cumulative noise and vibration impacts that were not previously identified in the FEIR; would not result in more severe cumulative noise and vibration impacts than those identified; and would not require new noise and vibration mitigation measures.

5.5 Air Quality

Biosolids Digester Facilities Project FEIR Findings

The FEIR found that the project would have potentially significant impacts related to the following significance criteria regarding air quality:

- Conflict with or obstruct implementation of the applicable air quality plan,
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation,
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors).

The FEIR found that the project would have less than significant impacts related to exposing sensitive receptors to substantial pollutant concentrations or creating objectionable odors that affect a substantial number of people.

As discussed in Sections 2.2 and 4, construction of the approved project began in early January 2020. Since FEIR certification, the SFPUC has approved multiple minor changes to the approved project. The approved project also includes construction and operation of the biogas utilization system instead of the originally proposed energy recovery facilities and related changes to operational energy demand and supply, which was evaluated in addendum 1 to the FEIR.[52] The Planning Department determined that these changes would not alter the FEIR conclusions. The following discussion summarizes the air quality impacts of the approved project based on information from the FEIR and addendum 1 to the FEIR.

Criteria Air Pollutant Emissions

Construction

Construction of the project was found to generate emissions of fugitive dust and criteria air pollutants. The SFPUC, through its contractors, would be required to implement dust control measures in compliance with the requirements of the Construction Dust Control Ordinance, and therefore, the FEIR determined that construction-related air quality impacts due to fugitive dust would be less than significant. The SFPUC, through its contractors, is also required to implement emissions control measures in compliance with the requirements of the Clean Construction Ordinance. With these control measures, estimated average daily construction emissions of reactive organic gases (ROG) and of particulate matter measuring 10 and 2.5 microns in diameter or less (PM_{10}, and $PM_{2.5}$) were found to be below the applicable thresholds during all construction years. Emissions of nitrogen oxides (NOx), however, were found to exceed the applicable significance thresholds for two construction years (years 1 and 3). Subsequent to the certification of the FEIR and approval of the project, an updated analysis was conducted for the first three years of construction to estimate the emissions of the approved project based on the actual construction activities that occurred during those years. As documented in addendum 1 to the FEIR, the updated construction emission estimates for the first three years of construction are less than the emission estimates presented in the FEIR due to considerably fewer construction equipment hours actually used. **Table 5** presents the average daily construction criteria air pollutant emissions for the approved project. For the purposes of this analysis (addendum 2), the construction emissions presented in Table 5 for years 1 through 3 of the approved project are the updated construction emissions from addendum 1.[53] The original FEIR estimated emissions are shown in parentheses for comparison. The FEIR estimated emissions are shown in Table 5 for years 4 and 5 because the actual emissions have not been quantified for years 4 and 5.

[52] San Francisco Planning Department, Addendum 1 to Environmental Impact Report, Biosolids Digester Facilities Project, Biogas Utilization System, July 12, 2024. Available at: https://sfplanning.org/environmental-review-documents.

[53] Other minor project modifications were evaluated using worst-case conceptual analyses, which found there would not be any new or substantial changes in construction emissions or health risk effects beyond those analyzed in the FEIR.

Table 5 Average Daily Construction Criteria Air Pollutant Emissions for the Approved Project

Year	Average Daily Emissions (Pounds/Day)			
	ROG	NO_x	PM_{10}	$PM_{2.5}$
Year 1 of actual construction emissions *FEIR estimates shown in parentheses*	3.5 (8.7)	54 (**72**)	0.3 (0.7)	0.3 (0.7)
Year 2 of actual construction emissions *FEIR estimates shown in parentheses*	4.2 (10)	37 (45)	0.3 (0.7)	0.3 (0.6)
Year 3 of actual construction emissions *FEIR estimates shown in parentheses*	3.1 (10)	30 (**55**)	0.14 (0.6)	0.13 (0.6)
Year 4 (FEIR estimates)	13	40	0.5	0.5
Year 5 (FEIR estimates)	10	33	0.4	0.4
BAAQMD Thresholds	54	54	82	54
Project Emissions Above Threshold?	No	No	No	No

SOURCE: San Francisco Environmental Planning, Biosolids Digester Facilities Project Addendum 1 to Environmental Impact Report, July 12, 2024, Appendix B, Tables A 1a-A1c; Biosolids Digester Facilities Project Final EIR, Table 4.8-9

Operation

The FEIR found that full operation emissions in 2045 associated with the project would not exceed any of the significance thresholds for criteria air pollutants. The FEIR disclosed that net emissions of ROG would be reduced by approximately 4 tons, and that net emissions of NOx, PM10, and PM2.5 would each increase by approximately 3 tons per year (see **Table 6**), which would be less than the 10 or 15 tons per year significance thresholds for those pollutants. Subsequent to FEIR certification, an updated analysis was conducted for operation of the biogas utilization system instead of the originally proposed energy recovery facilities and related changes to operational energy demand and supply in addendum 1. Table 6 shows the approved project's operational criteria air pollutant emissions for the worst-case operating scenario.[54] The emissions presented in Table 6 for the approved project also reflect emissions updates that occurred after issuance of addendum 1 to reflect revised emission factors for emissions from the specific boilers and thermal oxidizer to be procured for the project.[55] The original FEIR estimated emissions are shown in parentheses for comparison. As shown in Table 6, the approved project's impacts with respect to causing new violations of air quality standards, contributing to an existing or projected air quality violation, or causing a cumulatively considerable net increase in criteria air pollutants during operations were found to be less than significant.

[54] Compared to the project as analyzed in the FEIR at full operation in 2045, the approved project has decreased emissions of ROG, NOx, PM10, and PM2.5. These changes in operation criteria air pollutant emissions are due to changes in equipment for the biogas utilization system (namely, the removal of the proposed turbines and increase in boiler and flaring operations), as well as differing amounts and composition of the gas combusted between the FEIR project scenario and the recently approved biogas utilization system.

[55] San Francisco Planning, Memorandum to File RE: Addendum 1 – Biogas Utilization System Updated Equipment and Emissions Factors Biosolids Digester Facilities Project, December 18, 2024; Ramboll, 2024. Memorandum: Air Quality Health Risk Assessment Update for Potential Modification to the Future End-use of Digester Gas at the Southeast Plant Biosolids Digester Facility, Table 2a, October 7, 2024.

Table 6 Approved Project Net Annual Operational Criteria Air Pollutant Emissions

Scenario	Average Daily Emissions (Pounds/Day)			
	ROG	NO_x	PM_{10}	$PM_{2.5}$
Existing (2014)	5.0	22	1.7	1.7
FEIR Project Full Operation (2045) – Net Change from Existing (2014)	-4.3	2.6	2.9	2.9
Approved Project Full Operation (2045) Impacts - Net Change from Existing (2014) *FEIR estimates shown in parentheses*	-3.4 (-4.3)	-0.2 (2.6)	2.3 (2.9)	2.3 (2.9)
BAAQMD Thresholds	10	10	15	10
Approved Project Emissions Above Threshold?	No	No	No	No

SOURCE: Ramboll, 2024. Memorandum: Air Quality Health Risk Assessment Update for Potential Modification to the Future End-use of Digester Gas at the Southeast Plant Biosolids Digester Facility, Table 2a, October 7, 2024; Biosolids Digester Facilities Project Final EIR, Table 4.8-10.

Toxic Air Contaminants

Both construction and operation of the approved project were found to generate emissions of $PM_{2.5}$ and toxic air contaminants, including diesel particulate matter. The FEIR determined that project-related construction and operational emissions increases would not expand air pollutant exposure zone boundaries or create new air pollutant exposure zones. The project-specific health risk assessment found that the project's net construction-related and operational cancer risk as well as $PM_{2.5}$ concentrations would not exceed significance thresholds at sensitive receptors within 1 kilometer of the project site. Because the biogas utilization system would require fewer facilities and less excavation than estimated for construction of the energy recovery facilities in the FEIR, addendum 1 to the FEIR found that it was reasonable to conclude that construction-related health risk would also decrease as a result of the modifications, and therefore, the construction health risk impacts were not re-quantified as part of the analysis in addendum 1 to the FEIR. Operations-related excess cancer risk and $PM_{2.5}$ concentrations of the approved project as analyzed in addendum 1 were reduced compared to the project evaluated in the FEIR.[56] The excess cancer risk threshold of 7.0 per million is inclusive of emissions from construction and operation. Given the approved project would have decreased construction related and operational cancer risk, it is reasonable to conclude that the approved project's combined excess cancer risk would be below the values presented in the FEIR, and below CEQA thresholds, even though construction risk was not re-quantified. The analysis in addendum 1 to the FEIR determined that the approved project's impact would remain less than significant.

Consistency with Clean Air Plan

The project was found to be consistent with the adopted *2010 Clean Air Plan* and Draft *2017 Clean Air Plan* because it would not hinder either plan in meeting its primary goals. Additionally, with implementation of Mitigation Measures M-AQ-1a and M-AQ-1b, the project was found to be consistent with the *2010 Clean Air Plan*'s control measures, including mobile/stationary source measures, land use/local impact measures, and energy/climate measures, as well as the Draft *2017 Clean Air Plan's* transportation, stationary source, and

[56] Ramboll, 2024. Memorandum: Air Quality Health Risk Assessment Update for Potential Modification to the Future End-use of Digester Gas at the Southeast Plant Biosolids Digester Facility, October 7, 2024.

water control measures. Therefore, the FEIR concluded that the project would not conflict with or obstruct implementation of the *2010 Clean Air Plan,* and the impact would be less than significant with mitigation.

Odors

The FEIR determined that construction activities for the project were not expected to create objectionable odors affecting a substantial number of people. The FEIR determined that during operation, odors from the solids treatment facilities both inside and outside the boundary of the Southeast Plant were expected to improve compared to existing conditions. Based on the relocation of solids and digester gas handling facilities farther from sensitive receptors, design of proposed facilities, implementation of the proposed odor control features, and results of odor modeling, operation of the project was not expected to create objectionable odors that would affect a substantial number of people, and the impact was found to be less than significant. Addendum 1 to the FEIR found that the approved project would not affect odors.

Cumulative Impacts

The FEIR determined that the project, in combination with cumulative projects, would result in a significant cumulative impact related to criteria air pollutant emissions because the project's construction-related criteria pollutant emissions would exceed thresholds for NOx during years 1 and 3 of construction. However, as discussed above, while the FEIR concluded that the project would result in a significant and unavoidable cumulative impact with mitigation for NOx, as shown in Table 5 the approved project emissions for NOx no longer exceed the threshold for years 1 through 3.

The FEIR determined that cumulative increases in excess cancer risk from the project in combination with background risks and other development would exceed the cumulative threshold of 90 per million and 100 per million, indicating a significant cumulative impact, but that the project's contribution would not be cumulatively considerable (less than significant) because the project's combined construction-related and operational excess cancer risk would not exceed the project-level thresholds of 7.0 per million and 10 per million. Similarly, the FEIR determined that cumulative $PM_{2.5}$ increase during construction would exceed the cumulative $PM_{2.5}$ threshold of 9.0 $\mu g/m^3$, indicating a significant cumulative impact. However, the FEIR determined the project's construction-related contributions to cumulative $PM_{2.5}$ levels within the air pollution exposure zone would not exceed the project-level thresholds of 0.2 and 0.3 $\mu g/m^3$, and therefore the project's construction-related contribution to the cumulative $PM_{2.5}$ levels would not be cumulatively considerable. The FEIR did not identify other potentially significant cumulative air quality impacts. Because the biogas utilization system would require fewer facilities and less excavation than estimated for construction of the energy recovery facilities in the FEIR, addendum 1 to the FEIR found that it was reasonable to conclude that construction-related health risks (including excess cancer risk and $PM_{2.5}$ concentration) would also decrease as a result of the modifications, and therefore, the construction health risk impacts were not re-quantified as part of the analysis in addendum 1 to the FEIR. Operations-related excess cancer risk and $PM_{2.5}$ concentrations of the approved project would also be reduced compared to the project evaluated in the FEIR.[57] The excess cancer risk threshold of 7.0 per million and the project-level cumulative contribution $PM_{2.5}$ concentration threshold of 0.2 $\mu g/m^3$ are both inclusive of emissions from construction and operation. Given the approved project would have decreased construction related and operational toxic air contaminant emissions, it is reasonable to conclude that the approved project's

[57] Ramboll, 2024. Memorandum: Air Quality Health Risk Assessment Update for Potential Modification to the Future End-use of Digester Gas at the Southeast Plant Biosolids Digester Facility, October 7, 2024.

combined excess cancer risk and cumulative $PM_{2.5}$ concentration would be below the values presented in the FEIR, and below CEQA thresholds, even though construction risk was not re-quantified. Because construction risk was not re-quantified, **Tables 7 and 8** below present estimated health risk results from the FEIR.

Table 7 FEIR Project Cumulative Cancer Risks

Source	Excess Cancer Risks (cases per million)	
	Unmitigated	Mitigated
Net Project Excess Cancer Risk (Construction + Operation – Existing)	3.4	1.7
Cumulative Projects	61	24
Adjusted CRRP-HRA Background (from FEIR)	102	85
Total Cumulative Excess Cancer Risk	166	111
Cumulative Significance Threshold	90/100	90/100
Exceeds Cumulative Threshold?	Yes/Yes	Yes/Yes
Project-Level Significance Threshold	7.0/10	7.0/10
Exceeds Project-Level Significance Threshold?	No/No	No/No

SOURCE: FEIR Table 4.8-14

Table 8 FEIR Project Cumulative PM2.5 Concentrations

Source	Maximum Annual $PM_{2.5}$ Concentration (ug/m^3)		
	Construction, Unmitigated	Construction, Mitigated	Operational
Net Project PM2.5 Concentrations	<0.1	<0.1	0.1
Cumulative Projects	<0.1	<0.1	<0.1
CRRP-HRA Background PM2.5 Concentration	9.1	9.1	8.9
Total Cumulative PM2.5 Concentrations	9.2	9.2	9.0
Cumulative Significance Threshold	9.0/10	9.0/10	9.0/10
Exceeds Cumulative Threshold?	Yes/No	Yes/No	No/No
Project-Level Significance Threshold	0.2/0.3	0.2/0.3	0.2/0.3
Exceeds Project-Level Significance Threshold?	No/No	No/No	No/No

SOURCE: FEIR Table 4.8-15

Modified Project

Criteria Air Pollutants

Construction

The approved project included construction of Maintenance Shops 1 and 2 during the second year through fourth year of construction. For consistency with the FEIR, and for a conservative evaluation, construction of the proposed modifications in this addendum (that would replace Maintenance Shops 1 and 2) are evaluated as if they would also be constructed during the second year through fourth year of construction of the approved project, when criteria air pollutant emissions were estimated to be the highest.

Table 9 shows the modified project criteria air pollutant emissions, consisting of emissions from the proposed modifications combined with the approved project emissions. Approved project emissions reflect actual construction activities during the second and third years of construction,[58] while the FEIR emissions estimate is used for the fourth year of construction because actual emissions data is unavailable. The emissions shown in Table 9 assume compliance with FEIR Mitigation Measure M-AQ-1a (Construction Emissions Minimization), presented below. Refer to Appendix B for additional details regarding the modified project construction emissions estimates.

Table 9 shows that, with implementation of **Mitigation Measure M-AQ-1a (Construction Emissions Minimization)**, none of the emissions for years two through four of construction of the modified project would exceed a significance threshold. Construction during all three years would result in slightly higher average daily emissions of NOx, ROG, PM_{10} and $PM_{2.5}$ when compared to the approved project. However, all emissions would be below significance thresholds (less than significant with mitigation).

Implementation of Mitigation Measure M-AQ-1a (Construction Emissions Minimization), as presented below in full, would reduce impacts to less-than-significant levels by requiring the use of emissions control technologies, newer equipment, and renewable diesel.

[58] An updated criteria air pollutant emissions analysis was conducted for the first three years of the Biosolids project construction to estimate the emissions of the project based on the actual construction activities that occurred during those years (years 1 through 3).

Table 9 Modified Project Average Daily Construction Criteria Air Pollutant Emissions During Years 2-4 - Mitigated[59]

Year	Average Daily Emissions (Pounds/Day)			
	ROG	NO_x	PM_{10}	$PM_{2.5}$
Approved Project				
Year 2	4.2	37	0.3	0.3
Year 3	3.1	30	0.14	0.13
Year 4	13	40	0.5	0.5
Proposed Modifications				
Year 2	0.26	11	0.074	0.070
Year 3	1.3	6.5	0.054	0.052
Year 4	2.4	8.6	0.060	0.056
Modified Project (Proposed Modifications Combined with Approved Project)[60]				
Year 2	4.5	47	0.38	0.37
Year 3	4.4	37	0.19	0.18
Year 4	15	48	0.58	0.57
BAAQMD Thresholds	54	54	82	54
Modified Project Emissions Above Threshold?	No	No	No	No

SOURCES: Appendix B, Table A for the Proposed Modifications Alone emissions; Appendix B Table C for the Modified Project emissions combined with actual emissions for Years 2 and 3 and Table B for Year 4 combined with proposed emissions in the FEIR; Ramboll, 2024. Memorandum: Air Quality Health Risk Assessment Update for Potential Modification to the Future End-use of Digester Gas at the Southeast Plant Biosolids Digester Facility, Table 1, October 7, 2024; and FEIR Table 4.8-9 for Approved Project emissions year 4.

Mitigation Measure M-AQ-1a: Construction Emissions Minimization

The SFPUC's contractors shall comply with the following:

A. Engine Requirements.

1. All off-road equipment with larger engines (greater than or equal to 140 horsepower) shall meet United States Environmental Protection Agency (USEPA) or California Air Resources Board (CARB) Tier 4 Final off-road emission standards, while equipment with smaller engines (less than 140 horsepower) shall meet or exceed Tier 2 off-road emission standards and be equipped with diesel particulate filters (DPFs), which is equivalent to a Level 3 verified diesel emission control strategy (VDECS).

[59] Years 2 through 4 are shown in this table because the approved project included construction of Maintenance Shops 1 and 2 during the second year through fourth year of construction. For consistency with the FEIR, and for a conservative evaluation, construction of the proposed modifications that would replace Maintenance Shops 1 and 2 are evaluated as if they would also be constructed during the second year through fourth year of construction of the approved project. Approved project emissions reflect actual construction activities during the second and third years; the FEIR emissions estimate is used for the fourth year of construction.

[60] Totals shown in this row may not be equal to the sum of values in rows above due to rounding.

2. At least 80 percent of haul trucks (i.e., trucks used to remove or deliver backfill soil, excavated soil, and demolition debris) used must have 2010 or newer engines. The SFPUC should strive to exceed this requirement when possible; if trucks with 2010 or newer engines are available in the Contractor's, or subcontractor's fleet, then those should be used for the project.

   The SFPUC, through its Contractors Assistance Center, will work with the BAAQMD's Strategic Incentives Division and interested, eligible truckers to pursue funding to replace vehicles or retrofit engines to comply with the lower emissions requirement, including but not limited to conducting informational presentations at the Contractors Assistance Center to notify truckers about the grants and incentives and assisting with the completion of applications to the grant programs.

3. All diesel-powered haul trucks and off-road equipment must use renewable diesel.[61]

B. Waivers.

1. Pursuant to the Clean Construction Ordinance, the SFPUC General Manager (GM) or designee may waive the alternative source of power requirement if an alternative source of power is limited or infeasible at the project site. If the SFPUC GM grants the waiver, the contractor shall submit documentation that the equipment used for on-site power generation meets the requirements of Subsection (A)(1).

2. The SFPUC GM or designee may waive the equipment requirements of Subsection (A)(1) but only under any of the following unusual circumstances: if a particular piece of off-road equipment with Tier 4 Final standards or CARB Level 3 VDECS is technically not feasible; the equipment would not produce desired emissions reduction due to expected operating modes; installation of the equipment would create a safety hazard or impaired visibility for the operator; or there is a compelling emergency need to use off-road equipment that is not retrofitted with a CARB Level 3 VDECS. If the SFPUC GM or designee grants the waiver, the contractor shall use the next cleanest piece of off-road equipment, according to the following table:

Compliance Alternative	Engine Emission Standard
1	Tier 4 Interim
2	Tier 3
3	Tier 2

NOTES: How to use the table: If the SFPUC GM or designee determines that the equipment requirements cannot be met, then the contractor shall meet Compliance Alternative 1. If the SFPUC GM or designee determines that the contractor cannot supply off-road equipment meeting Compliance Alternative 1, then the contractor shall meet Compliance Alternative 2. If the SFPUC GM or designee determines that the contractor cannot supply off-road equipment meeting Compliance Alternative 2, then the contractor shall meet Compliance Alternative 3.

Operation

Operational criteria air pollutant emissions associated with the proposed modifications would generally remain unchanged relative to the approved project because there would be no new operational emissions sources with the exception of two new emergency generators that would replace a single existing emergency generator (see below). In addition, the relocated chiller and boiler equipment would serve fewer

[61] In Minor Project Modification 8 the SFPUC proposed an alternative to the requirement to use renewable diesel in on-road haul trucks because there are no renewable diesel fueling facilities for large haul trucks near the project site. The alternative would achieve the same NOx emissions avoidance by replacing 80% of older trucks using renewable diesel with 80% of newer trucks using non-renewable diesel.

buildings with an overall reduced square footage. **Table 10** shows the net increase in operational emissions that would be associated with the modified project. As shown in Table 10, the associated operational emissions increase from the emergency generators would be under 1 ton per year and the total combined increase in criteria air pollutant operational emissions from the modified project would remain below significance thresholds.

Table 10 Modified Project Net Annual Operational Criteria Air Pollutant Emissions

Source	Maximum Annual Emissions (Tons/Year)			
	ROG	NO_X	PM_{10}	$PM_{2.5}$
Net Operations of Proposed Modifications (Tier 3 Generators)[62]	0.0008	0.10	0.0081	0.0070
Approved Project	-3.4	-0.2	2.3	2.3
Modified Project Emissions (Proposed Modifications plus Approved Project)	-3.4	-0.1	2.3	2.3
Significance Threshold	10	10	15	10
Modified Project Emissions Above Threshold?	No	No	No	No

SOURCE: Appendix B, Table D; and Ramboll, Air Quality Health Risk Assessment Update for Potential Modification to the Future end-use of Digester Gas at the Southeast Plant Biosolids Digester Facility Project in San Francisco, California, October 7, 2024, Table 14.

Toxic Air Contaminants

Table 11 shows the total health risks for the modified project, including the operational emissions for the proposed modifications quantified in Table 10. Adding the maximum health impacts from the proposed modifications to the approved project impacts is conservative because this assumes that these maximums could occur at receptors that would also be experiencing health risks at the level of the maximally exposed individual sensitive receptor for the approved project.[63] The maximum risks at the maximally exposed individual sensitive receptor include risks from the modified project activities such as off-road construction and emergency generator testing. Moreover, the approved project maximally exposed individual sensitive receptor impact value already includes a small portion of risk accounted for from the construction of Maintenance Shops 1 and 2 (i.e., the previously approved design for the currently proposed modification, as was evaluated in the FEIR). The estimate of modified project health risks is also conservative for particulate matter and chronic non-cancer hazard index, which are calculated as maximum annual averages, as the summation assumes they would also overlap in time.

As shown in Table 11 below, with implementation of FEIR Mitigation Measure M-AQ-1a (Construction Emissions Minimization), the resulting maximum health risks at the maximally exposed individual sensitive receptor would be below CEQA thresholds.

[62] Assumes Tier 3 generators for proposed modifications.

[63] The location of the maximally exposed individual sensitive receptor for the proposed modifications is different from the location of the approved project's maximally exposed sensitive receptor.

Table 11 Modified Project Potential Theoretical Maximum Health Risk Impacts[64]

Source	Excess Cancer Risk (in a million)	$PM_{2.5}$ Concentration (ug/m^3)	Chronic Non-Cancer Hazard Index (unitless)
Proposed Modifications MEISR[65] Impact (Construction and Operations)	2.4	0.0047	0.0010
FEIR MEISR[66] Impact Value (Worst-case; construction and operations)	1.7	0.017	0.0036
Approved Project Operation Maximum Impact[67]	-0.009	0.02	0.015
Modified Project Impact (Construction and Operation) [68]	4.2	0.04	0.02
CEQA Significance Threshold	7.0	0.2	1
Exceeds CEQA Significance Threshold	No	No	No

SOURCES: Appendix B, Table E.

Table 12 summarizes the cumulative health impacts of the modified project and compares it to the CEQA significance threshold. As discussed above, since preparation of the FEIR, citywide background health risk has increased due to changes in methodology and due to increases in nearby stationary sources and major roadway and railroad emissions sources, contributing to the increase in cumulative effects. In addition, due to the updated emissions sources the maximally exposed individual sensitive receptor location for the modified project is different from the maximally exposed individual sensitive receptor location in the FEIR. The modified project's impact would be considered cumulatively considerable if the project's contribution to the excess cancer risk exceeded the threshold of 7.0 per million (for the maximally exposed individual sensitive receptor within the air pollutant exposure zone). As shown, the modified project's construction-related and operational net increase in excess cancer risk would not exceed the 7.0 per million threshold. Therefore, the modified project's combined cancer risk would be less than significant, and no mitigation would be necessary. Although the impact would be less than significant, implementation of controls specified in Mitigation Measure M-AQ-1a (Construction Emissions Minimization) would reduce the project's less-than-significant impact by decreasing the project's net increase in cancer risk.

[64] Assumes implementation of Mitigation Measure M-AQ-1a and Tier 3 generators for proposed modifications.

[65] "MEISR" is maximally exposed individual sensitive receptor.

[66] "FEIR Construction MEISR Impact" values include the cancer risk at the MEISR identified in the FEIR from the entire project implementation, including construction and operation, minus the net reduction from decommissioning of certain existing facilities.

[67] Ramboll, Revised Air Quality Health Risk Assessment Update for Potential Modification to the Future End Use of Digester Gas at the Southeast Plant Biosolids Digester Facility Project in San Francisco, California, October 7, 2024.

[68] Total shown in this row may not be equal to the sum of values in rows above due to rounding.

Table 12 Cumulative Health Risk Impacts of the Modified Project, Cumulative Projects, and 2020 Updated Citywide Health Risk Assessment

Source	Excess Cancer Risk (in a million)	$PM_{2.5}$ Concentration (ug/m^3)	Chronic Non-Cancer Hazard Index (unitless)
FEIR Total Cumulative Health Risk (FEIR Construction MEISR Impact)[69]	111	9.2	0.009
Modified Project			
Modified Project Total Net Health Risk (Construction and Operations)[70]	4.2	0.04	0.02
Cumulative Projects	24	0.010	0.0053
Citywide HRA	106	9.5	--
Modified Project plus Cumulative Projects and Citywide HRA Impact	134	9.5	0.025
Significance Thresholds			
Cumulative Significance Threshold	90	9.0	10.0
Exceeds Cumulative Significance Threshold?	Yes	Yes	No
Threshold for Contribution to Cumulative Impact (Project-Level Threshold)	7.0	0.5	1
Modified Project Contribution Significant?	No	No	No

SOURCE: Appendix B, Table F.

Consistency with Clean Air Plan

Impacts associated with consistency with the adopted 2010 Clean Air Plan and Draft 2017 Clean Air Plan associated with the modified project would remain unchanged relative to the approved project because construction emissions during years 2 through 4 would not exceed BAAQMD thresholds with implementation of Mitigation Measure M-AQ-1a (Construction Emissions Minimization), and the only new emissions sources would be routine testing of two new emergency generators that would replace an existing emergency generator resulting in operational emissions below thresholds.

Odors During Construction and Operation

Odor impacts associated with the modified project would remain unchanged relative to the approved project because the proposed modifications would not alter biosolids handling or treatment processes.

[69] "FEIR Construction MEISR Impact" values include the cancer risk at the MEISR identified in the FEIR from the entire project implementation, including construction and operation, minus the net reduction from decommission of certain existing facilities.

[70] The modified project total for each type of health risk is calculated as shown in Table 11 and is the sum of health risks from the proposed modifications, construction maximum health risks from the FEIR, and operations maximum health risks of the approved project (including other approved project modifications). Values shown assume implementation of Mitigation Measure M-AQ-1a and Tier 3 generators for proposed modifications.

Conclusion

With implementation of approved Mitigation Measure M-AQ-1a (Construction Emissions Minimization), the modified project would not result in new significant impacts on air quality that were not previously identified in the FEIR, would not result in more severe impacts than those identified, and would not require new mitigation measures.

5.6 Biological Resources

Biosolids Digester Facilities Project FEIR Findings

The FEIR found that the approved project would have potentially significant impacts related to the following significance criteria regarding biological resources:

- Have a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service

The FEIR found that the project would have less than significant impacts related to: federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means; and conflicting with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. The approved project was determined to have no impacts related to riparian habitat or other sensitive natural community, interference with migratory corridors, or conflicts with an adopted habitat conservation plan. As explained in the FEIR, operational impacts on biological resources were not discussed because limited biological resources are found within and near the site, and upon completion of the project, all operations would be restricted to the expanded, modernized Southeast Plant, and no activities would occur in the staging areas.

Special-Status Species

The FEIR found that underutilized buildings, trees, and other structures in and near the project site and construction staging areas could serve as migratory bird nesting habitat and bat roosting sites. The FEIR determined that impacts to nesting birds would be less than significant with implementation of SFPUC's Standard Construction Measure 7 (Biological Resources) that requires pre-construction nesting bird surveys and establishing no-disturbance buffers for any active nests, while Mitigation Measure M-BI-1 (Protective Measures for Special Status Bats and Maternity Roosts) would reduce impacts on bats to a less-than-significant level. Mitigation Measure M-BI-1 (Protective Measures for Special Status Bats and Maternity Roosts) requires pre-construction bat surveys, establishing no disturbance buffers for active nests and roosts, removing bat roosts under certain weather conditions when bats are more active and only in consultation with the California Department of Fish and Wildlife, and installing artificial habitat to compensate for removed roosts.

Federally Protected Wetlands

The FEIR determined that with adherence to Article 4.2 of the San Francisco Public Works Code (Section 146) and the State Water Resources Control Board's Construction General Stormwater Permit during grading and

excavation near wetlands at the Piers 94 and 96 staging areas, the approved project would have a less-than-significant impact on wetlands.

Local Policies or Ordinances Protecting Biological Resources

The FEIR identified that the approved project would not significantly conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, because the design includes planting trees and other landscaping along Jerrold Avenue to replace trees requiring removal and a site-specific Tree Protection Plan would also be required to protect trees that would be retained pursuant to San Francisco Public Works Code Article 16.

Modified Project

Construction of the proposed modifications would be within the existing Southeast Plant boundary, but outside of the approved project boundary. The disturbance footprint is currently developed with pavement, existing buildings, and landscaping which does not support or contain sensitive natural communities, aquatic features, serve as a wildlife corridor, or provide suitable habitat for special-status plants. While the proposed modifications would occur beyond the approved project boundary, operations would occur within the existing Southeast Plant and therefore for the same reasons discussed in the FEIR, operational impacts are not discussed in the impact analysis below.

Special-Status Species

Wildlife habitat within the proposed modifications disturbance footprint is limited to existing landscape trees and buildings, which could support migratory bird nests or bat maternity roosts. Like the approved project, construction of the modified project could affect birds or bats if active nests or maternity roosts are present in the trees or buildings to be removed or demolished. Construction associated noise, vibration, and visual disturbance could also affect avian or bat behavior and disturb or disrupt use of active nests or roosts in the modified project area, if present. As with the approved project, direct impacts on active bird nests or bat maternity roosts resulting from the modified project, such as disturbance that causes nest or roost abandonment, would be potentially significant. Like the approved project, the SFPUC would implement Standard Construction Measure 7 (Biological Resources) and Mitigation Measure M-BI-1 (Protective Measures for Special Status Bats and Maternity Roosts) during construction to ensure that nesting birds and bat maternity roosts would not be adversely affected. Therefore, with implementation of **Mitigation Measure M-BI-1 (Protective Measures for Special Status Bats and Maternity Roosts)** as presented below in full, the modified project impacts on nesting birds, and special-status bat maternity roosts would remain less than significant with mitigation.

> **Mitigation Measure M-BI-1: Protective Measures for Special Status Bats and Maternity Roosts**
>
> The San Francisco Public Utilities Commission (SFPUC) shall engage a qualified biologist to conduct a pre-construction survey of buildings and other structures to be demolished, vacant buildings within 100 feet of construction activities, trees to be removed, and trees located within 100 feet of construction activities to locate potential roosting habitat for special-status bats and active maternal colonies. The pre-construction surveys shall occur no more than two weeks in advance of initiation of building demolition or renovation activities on-site or initiation of construction. No activities that could disturb active roosts of special-status bats or maternal roosts shall proceed prior to the completed surveys. The pre-construction survey shall include at a minimum:

- Identification of potential direct and indirect project-related bat- disturbing activities; and
- Locations of active roosting habitat and maternal colonies.

If the pre-construction survey does not identify signs of potentially active bat roosts (e.g., guano, urine staining, dead bats, etc.) then no further action is required. If the pre-construction survey identifies signs of potentially active bat roosts, the following measures shall be implemented:

- Removal of structures and trees shall occur when bats are active, approximately between the periods of March 1 to April 15 and August 15 to October 15; outside of bat maternity roosting season (approximately April 15 to August 31); and outside of months of winter torpor (approximately October 15 to February 28). On structures where bats were observed during the pre-construction survey, exclusion devices (i.e., one-way doors) shall be installed prior to removal of the structures. Exclusion devices shall be left in place for a minimum of four nights prior to demolition of the structures.
- If removal of structures and trees during the periods when bats are active is not feasible and active bat roosts being used for maternity or hibernation purposes are found on or in the immediate vicinity of the project site where structure demolition or renovation is planned, a no-disturbance buffer of 100 feet or less if determined adequate by a qualified biologist in coordination with the California Department of Fish and Wildlife (CDFW) based on site-specific conditions shall be established around the roost sites until they are determined to be no longer active or volant by a qualified biologist.
- The qualified biologist shall be present during structure and tree disturbance if active bat roosts are present. Structures and trees with active roosts shall be removed only when no rain is occurring or is forecast to occur for three days and when daytime temperatures are at least 50 degrees Fahrenheit (˚F).
- Structures or trees containing or suspected to contain active bat roosts shall be dismantled or removed under the supervision of the qualified biologist in the evening and after bats have emerged from the roost to forage. Structures shall be partially dismantled to significantly change the roost conditions, causing bats to abandon and not return to the roost.
- If significant bat roosting habitat (e.g., maternity roosts or special-status non-maternity roost sites) is destroyed during structure or tree removal, artificial bat roosts shall be constructed in an undisturbed area in the project site vicinity away from human activity and at least 200 feet from project demolition/construction activities. The design and location of the artificial bat roost(s) shall be determined by a qualified bat biologist.
- Bat roosts that begin during construction are presumed to be unaffected, and no buffer would be necessary.

Local Policies or Ordinances Protecting Biological Resources

Construction of the proposed modifications would remove approximately 35 landscaping trees within the modified project's disturbance footprint, including four trees mapped as "significant trees" as defined in San Francisco Public Works Code Article 16.[71] The landscaping plan for the proposed modifications incorporates

[71] San Francisco Planning Department, Biosolids Digester Facilities Project Final Environmental Impact Report Appendix BIO, Planning Department Case No. 2015-000644ENV, State Clearinghouse No. 2015062073 certified March 8, 2018.

planting approximately 35 replacement trees (see Figure 3), consistent with the 1:1 replacement ratio in San Francisco Public Works Code Article 16. Like the approved project, with tree replacement consistent with Article 16 of the San Francisco Public Works Code, the modified project would not substantially conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Like the approved project, the location of the modified project is not in or near an Urban Bird Refuge and the building design for the proposed modifications does not contain any components that creates feature-related hazards for birds. Therefore, the modified project conforms with the Standards for Bird Safe Buildings.

Conclusion

In summary, with implementation of SFPUC Standard Construction Measure 7 and Mitigation Measure M-BI-1, construction of the modified project would not result in significant impacts on biological resources greater than those identified in the FEIR. Moreover, the modified project would not result in new significant impacts on biological resources that were not previously identified in the FEIR; would not result in more severe impacts than those identified; and would not require new mitigation measures.

Cumulative Impacts

The FEIR establishes that the geographic scope for potential cumulative impacts on biological resources encompasses the species occurrences, habitats, and sensitive natural communities in the vicinity of the project site and off-site staging areas. Cumulative projects that would affect biological resources similar to those of the modified project and that could combine to result in potential cumulative impacts on biological resources include projects that would demolish or remove buildings or structures that could be used as bat roosts or result in adverse effects on nesting birds by removing trees or generating substantial noise. As the use of Piers 94 and 96 for construction staging is no longer proposed, the modified project would have no contribution to potential cumulative impacts on wetlands.

As discussed in Section 4.2, Cumulative Projects in the Site Vicinity, and presented in Appendix A, the list of potential cumulative projects at the at the Southeast Plant has also been revised since the certification of the FEIR. The following cumulative project could involve building demolition, tree or vegetation removal, and/or noise or visual disturbance during construction:

- Islais Creek Bridge Replacement

The building and tree removal of the modified project and cumulative projects in the vicinity could cause potentially significant cumulative impacts on biological resources. However, like the approved project, the modified project would implement Mitigation Measure M-BI-1 (Protective Measures for Special-status Bats and Maternity Roosts) and SFPUC Standard Construction Measure 7 (Biological Resources). As explained above, implementation of these measures would reduce or avoid potential impacts on nesting birds, and special-status bats, and maternity roosts. Therefore, with implementation of Mitigation Measure M-BI-1 and SFPUC Standard Construction Measure 7 (Biological Resources), the modified project's contribution to cumulative impacts would not be considerable, and the impact would be less than significant with mitigation.

In summary, the modified project would not result in new significant cumulative impacts on biological resources that were not previously identified in the FEIR; would not result in new more severe impacts than those identified; and would not require new mitigation measures.

5.7 Geology, Soils, and Paleontological Resources

Biosolids Digester Facilities Project FEIR Findings

The FEIR found that the approved project would have potentially significant impacts related to the following significance criteria regarding geology, soils, and paleontological resources:

- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

The approved project was determined to have less than significant impacts related to seismic ground shaking or seismically induced ground failure, erosion, or being located on a geologic unit or soil that is unstable or could become unstable as a result of the project. The approved project was determined to have no impacts related to fault rupture and landslides, loss of topsoil, expansive soil, septic tanks or alternative water systems, and changes in unique geologic features.

Paleontological Resources

The FEIR found that the Pleistocene-aged, upper-layered sediments underlying the approved project site have high paleontological sensitivity, and that excavations extending into these sediments could encounter and damage or destroy paleontological resources (fossils). The FEIR concluded that this potentially significant impact on paleontological resources would be less than significant with implementation of Mitigation Measure M-GE-4 (Paleontological Resources Monitoring and Mitigation Program), which requires that excavation activities within the upper layered sediments be monitored by a qualified paleontologist, that any substantial find be adequately curated, and establishes procedures in the event of discoveries.

Ground Shaking or Seismically Induced Ground Failure

The FEIR determined that impacts related to ground shaking or seismically induced ground failure, liquefaction, earthquake-induced settlement, lateral spreading, and ground settlement that could expose people or structures to the risk of loss, injury, or death would be less than significant because the approved project was designed in accordance with the San Francisco Building Code and ASCE/SEI 7-10 and the SFPUC's Seismic Design Requirements and the approved project incorporates engineering and design features to withstand a major earthquake. Moreover, the FEIR discussed that the approved project would substantially improve the Southeast Plant's seismic safety, because it would replace the digesters and other existing solids treatment facilities at the Southeast Plant that are over 60 years old and were not built to withstand a major earthquake.

Unstable Geologic Units

The geotechnical interpretive report concluded that there is a low potential for lateral spreading at the approved project site; and measures would be implemented to prevent ground settlement due to excavation, dewatering, and pile driving in accordance with Title 8 of the California Code of Regulations.

Soil Erosion

The FEIR determined that the approved project would not result in substantial erosion, because the SFPUC would be required to prepare and implement a site-specific erosion and sediment control plan pursuant to San Francisco Public Works Code Article 4.2.

Modified Project

To date, no fossils have been exposed during the sampling and monitoring performed for construction of the approved project pursuant to Mitigation Measure M-GE-4 (Paleontological Resources Monitoring and Mitigation Program). However, the SFPUC would continue to implement Mitigation Measure M-GE-4 during construction, same as the approved project. With implementation of Mitigation Measure M-GE-4, presented below in full, construction impacts on paleontological resources would remain less than significant with mitigation.

> **Mitigation Measure M-GE-4: Paleontological Resources Monitoring and Mitigation Program**
>
> The SFPUC shall retain the services of a qualified paleontological consultant having expertise in California paleontology to design and implement a Paleontological Resources Monitoring and Mitigation Program (PRMMP) for construction activities that would disturb the upper layered sediments that are sensitive for paleontological resources. The PRMMP shall not require monitoring in shallower excavations that do not encounter the upper layered sediments.
>
> The PRMMP shall include a description of when and where construction monitoring would be required; emergency discovery procedures; sampling and data recovery procedures; procedure for the preparation, identification, analysis, and curation of fossil specimens and data recovered; pre-construction coordination procedures; and procedures for reporting the results of the monitoring program.
>
> The PRMMP shall be consistent with the Society for Vertebrate Paleontology (SVP) Standard Guidelines for the mitigation of construction–related adverse impacts on paleontological resources and the requirements of the designated repository for any fossils collected. During construction, earth-moving activities shall be monitored by a qualified paleontological consultant having expertise in California paleontology in the areas where these activities have the potential to disturb the upper layered sediments. Monitoring need not be conducted for construction activities that would disturb only artificial fill material and/or young bay mud.
>
> The consultant's work shall be conducted in accordance with this measure and at the direction of the City's Environmental Review Officer (ERO) in coordination with the SFPUC. Plans and reports prepared by the consultant shall be submitted first and directly to the ERO for review and comment and concurrently to the SFPUC for review and comment, and shall be considered draft reports subject to revision until final approval by the ERO. Paleontological monitoring and/or data recovery programs required by this measure could suspend construction of the project in an appropriate buffer zone around a discovered paleontological resource or area determined in the PRMMP to be sensitive for paleontological resources for up to a maximum of four weeks. At the direction of the ERO and in coordination with the SFPUC, the suspension of construction may be extended beyond four weeks for a reasonable time required to implement appropriate measures in accordance with

the PRMMP only if such a suspension is the only feasible means to reduce potential effects on a significant paleontological resource as previously defined to a less-than-significant level.

Ground Shaking or Seismically Induced Ground Failure

Modified project impacts related to ground shaking or seismically induced ground failure, liquefaction, earthquake-induced settlement, lateral spreading, and ground settlement that could expose people or structures to the risk of loss, injury, or death would continue to be less than significant. This is because the modified project is also designed in accordance with the San Francisco Building Code and ASCE/SEI 7-10 and the SFPUC's Seismic Design Requirements.

Unstable Geologic Units

The modified project impacts related to unstable soils and geologic units would remain less than significant because the modified project would implement the recommendations of the geotechnical reports for each project and excavation safety requirements specified in California Code of Regulations Title 8.

Soil Erosion

Like the approved project, site-specific erosion and sediment control measures would continue to be implemented during construction of the modified project, and impacts related to soil erosion would remain less than significant.

Conclusion

In summary, with implementation of Mitigation Measure M-GE-4, construction of the modified project would not result in significant impacts related to geology and soils greater than those identified in the FEIR. Moreover, the modified project would not result in new significant impacts related to geology and soils that were not previously identified in the FEIR; would not result in more severe impacts than those identified; and would not require new mitigation measures.

Cumulative Impacts

The FEIR established that the geographic scope of cumulative impacts related to seismic hazards and erosion is restricted to the project site and adjacent areas, as these geology and soils impacts are relatively localized or even site-specific. The FEIR found that cumulative impacts related to seismic hazards, erosion, and unstable soils or geologic units would be less than significant. As discussed in the FEIR, all of the SFPUC-sponsored cumulative projects would be engineered and designed according to the most current building code requirements, the SFPUC Seismic Design Guidelines, and applicable engineering standards for seismic safety, which would reduce risks associated with seismic hazards. The non-SFPUC cumulative projects would also be subject to local and state building codes. Additionally, all cumulative projects would be required to implement the requirements of Article 4.1 of the San Francisco Public Works Code, which includes stormwater pollution prevention and erosion control requirements applicable to construction projects.

The FEIR establishes that the geographic scope for potential cumulative impacts to paleontological resources includes the Islais Creek area where the upper layered sediments and other Pleistocene-age sediments could be disturbed. As discussed in Section 4.2, Cumulative Projects in the Site Vicinity, and presented in Appendix A, the list of potential cumulative projects at the Southeast Plant has been revised

since the certification of the FEIR. The following cumulative projects could include ground disturbance in the upper layered sediments and other Pleistocene-age sediments:

- Southeast Plant Headworks Replacement Project
- Islais Creek Bridge Replacement

The modified project in combination with cumulative projects could disturb upper layered sediments or other Pleistocene-age sediments and could result in potentially significant cumulative paleontological resources impacts. However, like the approved project, implementation of Mitigation Measure M-GE-4 (Paleontological Resources Monitoring and Mitigation Program) would ensure the modified project's contribution to this cumulative impact would be less than significant with mitigation.

In summary, the modified project would not result in new significant cumulative impacts related to geology and soils that were not previously identified in the FEIR; would not result in new more severe impacts than those identified; and would not require new mitigation measures.

5.8 Wildfire

The Biosolids Digester Facilities Project FEIR did not analyze wildfire impacts, because this topic was not mandated for inclusion under CEQA until 2019, after the FEIR certification. CEQA Guidelines Appendix G Checklist criteria for wildfire impacts are listed below.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

- Substantially impair an adopted emergency response plan or emergency evacuation plans?
- 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?
- 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?
- Expose people or structure to significant risks including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The City and County of San Francisco does not have any state responsibility areas for fire prevention or lands that have been classified as very high fire hazard severity zones.[72,73,74] Therefore, the wildfire topics are not applicable to the project and are not discussed further in this addendum. Refer to Section 5.9.10, Hazards

[72] California Department of Forestry and Fire Protection (CAL FIRE), San Francisco County Fire Hazard Severity Zone (FHSZ) Maps, November 2008, https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones/fire-hazard-severity-zones-maps, accessed February 13, 2024.

[73] CAL FIRE, San Mateo County Very High FHSZ Map, November 24, 2008, https://34c031f8-c9fd-4018-8c5a-4159cdff6b0d-cdn-endpoint.azureedge.net/-/media/osfm-website/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones/fire-hazard-severity-zones-map/upload-5/fhszl_map41.pdf, accessed April 9, 2024.

[74] CAL FIRE, San Mateo County FHSZ Map, June 15, 2023, https://34c031f8-c9fd-4018-8c5a-4159cdff6b0d-cdn-endpoint.azureedge.net/-/media/osfm-website/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones/fire-hazard-severity-zones-map-2022/fire-hazard-severity-zones-maps-2022-files/fhsz_county_sra_11x17_2022_sanmateo_2.pdf, accessed April 9, 2024.

and Hazardous Materials, for a discussion of additional fire risks and emergency response or evacuation plans.

5.9 Other Environmental Topics with Less-Than-Significant Impacts

5.9.1 Land Use and Planning

The existing Southeast Plant is an area designated as Public Facilities and Light Industrial in the San Francisco General Plan. The FEIR discussed that construction would temporarily affect land uses in the project vicinity, particularly related to closing Jerrold Avenue to public through-traffic between Phelps Street and the Caltrain right-of way to maintain a safe work area; however, this would be a less-than-significant impact, because the closure would be temporary, there would be detour routes, and the area affected by the closure does not clearly constitute an established community given the distinct nature of land uses on either side of this closed road segment (e.g., industrial warehouses to the west and residences and commercial uses to the east) along with the large-scale intervening industrial land uses that comprise the existing Southeast Plant site. Regarding operation, the FEIR determined that although the approved project would expand the Southeast Plant wastewater facilities into the Central Shops and Asphalt Plant sites, the new facilities would not divide an established community because those areas were already being used for storage and for industrial uses similar to the Southeast Plant, were already not accessible to the public, and would not block access between adjacent land uses. The FEIR assessed the demolition of Building 870, a contributor to the Southeast Treatment Plant Streamline Moderne Industrial Historic District (See Section 5.1, Cultural Resources) but was subsequently removed from the project and proposed demolition plans.[75] The FEIR concluded that, on the whole, the approved project would not conflict with applicable land use plans and policies, since it would advance the General Plan objective and policy concerning the location of wastewater facilities and provision of effective and efficient wastewater treatment, and the streetscape improvements would be consistent with the Better Streets Plan; however, the project could conflict with General Plan policies related to the preservation of historic resources (impacts would be mitigated to less than significant; see Cultural Resources, Section 5.1).

While the modified project would expand the project footprint to the corner of Phelps Street and Jerrold Avenue, the modified project would be constructed and operated entirely within the Southeast Plant such that, like the approved project, construction and operation would not physically divide an established community. The modified project would demolish Building 850, a contributor to the *Southeast Treatment Plant Streamline Moderne Industrial Historic District* (See Section 5.1, Cultural Resources) to construct the operations, engineering and maintenance Buildings, which could conflict with General Plan policies related to the preservation of historic resources, but would not demolish Building 870, as mentioned above. As discussed in Section 5.1, the demolition of Building 850 would have a comparable impact on the significance of the historic district as the approved project and would be addressed through the same mitigation measure approved in the FEIR, Mitigation Measure M-CR-1, Documentation of Historic Resources and Interpretive Display.

As discussed in the FEIR, the approved project includes long-term streetscape and landscape improvements along Jerrold Avenue that would enhance the safety and connectivity of Jerrold Avenue for various

[75] SFPUC Biosolids Digester Facilities Project Minor Project Modification 10-Modified Facilities, Approved by San Francisco Planning Department February 2, 2021.

transportation modes (e.g., bikes, pedestrians) in the plant's vicinity. As discussed above in the addendum, the modified project would take approximately an additional 1 year to construct, which would extend the closure period of Jerrold Avenue between Rankin and Phelps for safety considerations. During this time, detour routes would continue to be provided.

Therefore, the modified project would not result in new significant land use impacts that were not previously identified in the FEIR; would not result in more severe land use impacts than those identified; and would not require new land use mitigation measures.

5.9.2 Aesthetics

As stated in the FEIR, there are no scenic views or vistas in the project vicinity. The FEIR discussed that construction could affect the visual character of the area due to views of construction activities and staging areas, as well as the creation of new sources of light or glare. The FEIR determined that these impacts would be less than significant because construction equipment would be similar to other equipment and buildings already present in the area; other existing buildings at the Southeast Plant and in the general area, and the 15-foot-tall Caltrain berm would block views of the site from nearby residential, commercial, and industrial properties; views from adjacent or nearby streets for passing motorists, bicyclists, pedestrians, and Caltrain passengers would be brief and quickly replaced by succeeding streetscape views as the viewer moves past the project; views from the hills would be distant and include other industrial facilities; views of construction trailers would replace those of the former greenhouses; and construction equipment and activities would not create a substantial new source of light or glare because the SFPUC would implement Standard Construction Measure 8 to shield lights if used at night. Regarding operations, the FEIR found that the new Biosolids facilities would be similar to the existing Southeast Plant facilities, views of the new facilities from outside the project site would be limited by intervening structures and trees or would be fleeting views from cars or the train, and that the overall visual character of the Southeast Plant as seen from surrounding areas would remain essentially the same as the existing character, that of a major industrial facility. The FEIR also discussed that the design of the new facilities would be consistent with applicable standards (such as the Industrial Area Design Guidelines, the San Francisco Arts Commission Civic Design Review process, and the *Better Streets Plan)* and that landscaping and other street improvements included in the project would enhance the overall long term visual quality of the area. As a result, the FEIR determined that the new permanent facilities would have less-than-significant aesthetics impacts.

The proposed modifications would expand the project construction footprint to the corner of Jerrold Avenue and Phelps Street. On-site trees visible from Jerrold Avenue and Phelps Street would also be removed and replaced to the north of the proposed buildings. Equipment associated with project construction would be the same as that described in the FEIR. As discussed in previous environmental review, views from adjacent or nearby streets for passing motorists, bicyclists, and pedestrians would be brief, and while some project construction may be discernable from hills to the south and southeast, it would be difficult to distinguish from surrounding land uses. The previously approved closure of Jerrold Avenue east of the Caltrain tracks for use as a staging area would further limit views of project construction. For these reasons, construction would not result in new or more substantial temporary impacts on visual character.

Regarding project operations, the proposed modifications would replace an existing two-story building and a parking lot visible from the adjacent streets with a three-story Operations, Engineering, and Maintenance building along Jerrold Avenue and a two-story (including mezzanine) Mechanical Maintenance building at

the corner of Phelps Street and Jerrold Avenue. The new operations, engineering and maintenance buildings would be up to 50 feet tall. As stated in the FEIR, most of the approved project's new structures would be 20 to 50 feet tall, although the digesters would be up to 65 feet tall. The proposed buildings would replace existing buildings and be of similar height as previously approved structures and would be seen in the foreground of the 65-foot-tall digesters that, as with the approved project, would dominate views from Jerrold Avenue overall.

Like the approved project, the modified project facilities would be behind the Southeast Plant perimeter wall and trees would be installed along both sides of Jerrold Avenue consistent with the planned long-term streetscape and landscape improvements along Jerrold Avenue discussed in the FEIR. These improvements would enhance the visual quality of the area compared to existing conditions. The FEIR determined that, overall, the approved project would not substantially degrade the visual character of the area because the new facilities (including the originally approved Maintenance Shops 1 and 2) would be consistent with the existing industrial zoning and visually compatible with existing plant facilities. Additionally, for the typical motorist or pedestrian heading southeast on Jerrold Avenue, views of the new biosolids facilities at the plant would be fleeting. These conditions would remain the same because the modified project proposes structures that would be visually compatible with existing plant facilities and views from the surrounding areas would remain that of a major industrial facility, at heights that are lower than the tallest approved project components evaluated in the FEIR.

Therefore, the modified project would not result in new significant aesthetics impacts that were not previously identified in the FEIR; would not result in more severe impacts than those identified; and would not require new mitigation measures.

5.9.3 Population and Housing

As discussed in the FEIR, the approved project does not involve any housing construction and thus would not directly induce growth by constructing housing that would attract people to the area, nor would it extend roads or other infrastructure that could indirectly induce growth. The FEIR found that construction workers would likely be drawn primarily from the local and regional construction work force and commute from the Bayview-Hunters Point neighborhood or from elsewhere in the city or Bay Area. Accordingly, the approved project would not induce population growth by attracting workers from outside the region. The FEIR found that operation of the approved project would also have a less than significant impact on population and housing because it would not include new homes; increase the number of workers employed at the Southeast Plant; extend roads or other infrastructure into areas lacking such services that could induce substantial population growth; and would not increase existing overall Southeast Plant wastewater treatment capacity and would only provide solids treatment capacity that is consistent with the Association of Bay Area Government's growth forecasts. Thus, the project would not indirectly induce population growth.

The construction and operation of the modified project, including the proposed modifications, would have similar less-than-significant impacts as the approved project because the maximum number of construction workers would not increase compared with the approved project. The proposed modifications are intended to provide improved facilities for existing Southeast Plant employees and no new workers are proposed as part of the modified project. Further, like the approved project, the modified project would not change the Southeast Plant's treatment capacity.

Therefore, the modified project would not result in new significant population and housing impacts that were not previously identified in the FEIR; would not result in more severe impacts than those identified; and would not require new mitigation measures.

5.9.4 Greenhouse Gas Emissions

The FEIR concluded that the approved project would have a less-than-significant impact related to the generation of greenhouse gas emissions, either directly or indirectly, and would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The FEIR discussed that because no individual project could emit greenhouse gases at a level that could result in a significant impact on global climate, greenhouse gas (GHG) emissions are a cumulative impact. The FEIR evaluated the proposed project's consistency with the goals of Assembly Bill 32[76] by comparing the project's net changes in non-biogenic GHG emissions to the stationary source GHG significance threshold from the Bay Area Air Quality Management District (air district), which is 10,000 metric tons of carbon dioxide equivalent (MTCO2E).

The FEIR identified that construction would directly emit GHG from equipment use and vehicles and indirectly emit GHG via electricity providers for electric power. It also determined that the approved project's annualized construction-related GHG emissions[77] would average 894 MTCO2E, which would be below the air district's annual threshold for stationary sources of 10,000 MTCO2E. Further, the SFPUC would be required to use renewable diesel in all municipal fleets (Executive Directive 06-02) and comply with San Francisco Environment Code, chapters 7 and 14, to recycle construction waste. Therefore, the FEIR concluded that the approved project's contribution to global GHGs from construction would be less than significant. Construction of the modified project would require offhaul of up to 21,455 cubic yards of excavated material over the originally anticipated approved project's construction. As noted above, the approved project's annualized construction-related GHG emissions would average 894 MTCO2E, well below the applicable threshold. Moreover, during construction between 2020 and 2023, the actual emissions from approved project construction have been lower than anticipated in the FEIR.[78] Therefore, it is reasonable to conclude that the modified project's annualized construction-related GHG emissions would be substantially less than air district's GHG significance threshold of 10,000 MTCO2E per year for stationary sources.

Regarding operations, the approved project would result in an increase in net non-biogenic emissions[79] of 5,005 MTCO2E per year in 2045 associated with future wastewater treatment demand. In 2045, an annual net total of 19,805 MTCO2E would be emitted per year when accounting for averted non-biogenic emissions (consisting of 5,005 MTCO2E per year non-biogenic emissions and 14,800 MTCO2E per year biogenic emissions). Non-biogenic emissions would be below the GHG significance threshold outlined by the air district, which is 10,000 MTCO2E per year for stationary sources. The FEIR did not consider biogenic greenhouse gas emissions from the Southeast Plant to be a project impact because they would occur regardless of the project and regardless of whether the organic material decomposes in solids processing

[76] Global Warming Solutions Act of 2006. Cal Assembly Bill. 32, Health and Safety Code Section 38500, Division 25.5.

[77] Total GHG emissions from construction activities divided by years of construction activity.

[78] San Francisco Planning Department, SFPUC Biosolids Digester Facilities Project Addendum 1 to Environmental Impact Report, July 12, 2024.

[79] Biogenic GHG emissions are emissions from biological processes involving living organisms (i.e., not related to energy production and consumption). Non-biogenic GHG emissions are emissions related to energy production and consumption.

facilities at the treatment plant or at a land application site elsewhere (such as landfills, composting operations).

The FEIR also noted that the approved project would be subject to the California Air Resources Control Board's Greenhouse Gas Mandatory Reporting Regulation, just as it is now for the existing facilities. The approved project would also be subject to applicable City regulations adopted to reduce operational greenhouse gas emissions as identified in the San Francisco Strategies to Address Greenhouse Gas Emissions, which include but are not limited to: compliance with the City's Commuter Benefits Program, Emergency Ride Home Program, Executive Directive 06-02 requiring use of renewable diesel, Clean Construction Ordinance, bicycle parking requirements, the City's Green Building and recycling and composting ordinance requirements that would reduce greenhouse gas emissions in the City from transportation, waste, and promote energy and water efficiency. Lastly, by planting new landscaping trees consistent with San Francisco's Street Tree planting requirements, the approved project would help offset the effects associated with the proposed removal of about 90 trees and would serve to increase carbon sequestration. Through implementation of these actions, the FEIR determined that the project would be consistent with San Francisco's Strategies to Address Greenhouse Gas Emissions, and thus would not conflict with the goal of Assembly Bill 32 to reduce greenhouse gas emissions to 1990 levels by 2020.

The modified project, including the operations, engineering and maintenance buildings, does not include new types of operations activities that emit greenhouse gases. As discussed in Section 3, the proposed modifications would replace two existing inefficient shared boilers with two updated and smaller, efficient boilers and install a new chiller. As discussed in **Appendix F**, the new buildings would also be LEED certified, further reducing any greenhouse gas emissions associated with the modified project.

Additionally, like the approved project, the modified project would continue to be consistent with San Francisco's Strategies to Address Greenhouse Gas Emissions to reduce emissions during construction and operation and would not conflict with local or state climate goals.

Therefore, the modified project would not result in new significant greenhouse gas emissions impacts that were not previously identified in the FEIR; would not result in more severe impacts than those identified; and would not require new mitigation measures.

5.9.5 Wind and Shadow

The FEIR determined that construction would have no impact on wind or shadow because construction equipment would be smaller than or similar in size and height to other equipment and buildings in the area. Consequently, construction equipment would not substantially alter wind patterns in the project vicinity nor be tall enough to create substantial new shadows that could affect public open spaces. Construction of the modified project would use the same type of construction equipment and contain new structures of similar height (approximately 50 feet tall) as in the approved project. Although the modified project would be outside of the approved project footprint, it would be adjacent to it and within the boundaries of the Southeast Plant and would therefore have similar, less-than-significant impacts on wind and shadow as the approved project.

Regarding the approved project's new permanent facilities, the FEIR found that the approved new project facilities would range in height from 10 feet to 65 feet above grade with most buildings between 20 and 50 feet tall, would be similar in height to some existing buildings at the Southeast Plant and to neighboring

buildings that would remain, and would not be substantially taller than adjacent or nearby buildings or structures. In addition, the FEIR indicated that based on wind analyses for other development projects in San Francisco, a building or structure that does not exceed a height of 80 feet generally has little potential to cause substantial changes to ground level wind conditions. The approved project was not found to alter wind patterns in a manner that substantially affects public areas. The shadow analysis conducted for the FEIR to evaluate the impacts of the new permanent facilities on the nearest recreational facilities found that the project would not create new shadows that would substantially affect outdoor recreational areas, streets, and sidewalks. Wind and shadow impacts were determined to be less than significant.

The approved project would no longer demolish Building SEP 870, which is approximately 30 feet tall. With the proposed modifications, the modified project would instead demolish the existing building SEP 850, which is a two-story building ranging in height from approximately 26-40 feet, and two temporary pre-fabricated trailers (SEP 850A and SEP 850B). The proposed new buildings of the modified project would replace these existing structures and be up to approximately 50 feet tall, which is similar to other approved structures at the Southeast Plant and in nearby areas.

Regarding potential wind impacts, the new operations, engineering and maintenance buildings would be up to 50 feet tall, shorter than the approved project's maximum heights of 65 feet (for the digesters), and shorter than 80 feet (the height at which wind impacts would be expected to occur). Again, as stated in the FEIR, most of the approved project's new structures would be 20 to 50 feet tall, although the digesters would be up to 65 feet tall. The digesters would be located northwest of the modified project site and existing Building SEP 870. According to the FEIR, since wind primarily comes from the west in San Francisco, the approaching wind would be intercepted by the digesters on the western boundary of the Southeast Plant site, to the west of the modified project, and therefore would not significantly impact nearby publicly accessible areas such as streets and sidewalks. As discussed in Section 5.9.6 below, there would be no impact on recreational facilities because none are present within or adjacent to the approved project or the proposed modified project. Like the approved project, the net new project shadow from the modified project would be within the original footprint that was analyzed for shadow with buildings at proposed heights of 65 feet. As stated in Section 4.10 of the FEIR, shadows on streets and sidewalks would be transitory, would not substantially affect the function of sidewalks, and would not exceed levels commonly expected in urban areas[80].

Therefore, the modified project would not result in new significant wind and shadow impacts that were not previously identified in the FEIR; would not result in more severe impacts than those identified; and would not require new mitigation measures.

5.9.6 Recreation

The FEIR found that construction of the approved project would have no impact on recreational facilities, either directly or indirectly, because there are no such facilities within the approved project site or the off-

[80] The FEIR used a "shadow fan" diagram prepared by the San Francisco Planning Department (San Francisco Planning Department, Shadow Fan, September 3, 2015) to determine whether any properties under the jurisdiction of the Recreation and Park Commission could be potentially affected by project shadow. The shadow fan is a diagram that shows the maximum extent of the shadows cast by a building throughout the year, between one hour after sunrise and one hour before sunset. The preliminary shadow fan is typically based on full buildout of the zoning envelope (the maximum three-dimensional space within which a structure can be built, based on the zoning of the relevant lot), including complete lot coverage and maximum building height (in this case, 65 feet). According to the shadow fan analysis, due to the distance between the proposed structures and the nearest recreational facilities, there would be no new shadows created by the approved project that would affect outdoor recreational areas.

site staging areas and the existing parks and trails in the vicinity at over 1,000 feet and 300 feet (Bay Trail) respectively would remain open and are sufficiently far away so as not to be physically deteriorated or degraded by the project. The FEIR found that operation of the project would also have no impact on recreational facilities because it would not permanently affect existing recreational resources, include new residential or other uses that would generate increased demand for parks or other recreational facilities, or increase existing operations staff levels at the Southeast Plant that could increase demand at existing recreational facilities near the Southeast Plant, and that ongoing demand would continue to be met by existing parks and recreational facilities.

Construction and operation of the modified project, like the approved project, would not include the construction or expansion of recreational facilities, or increase the use of existing neighborhood and regional parks or other recreational facilities, because construction workers would continue to be drawn from the local and regional work force and there would be no increase in permanent employees at the Southeast Plant such that there would not be a significant increase in population that could accelerate the physical deterioration existing recreational facilities.

Therefore, the modified project would not result in new significant recreation impacts that were not previously identified in the FEIR; would not result in more severe impacts than those identified; and would not require new mitigation measures.

5.9.7 Utilities and Service Systems

The FEIR evaluated several construction-related utilities and services systems topics, including wastewater discharges in excess of the treatment capacity of the Southeast Plant and associated conveyance infrastructure, landfill capacity for construction waste, and compliance with local, state and federal regulations pertaining to the disposal of solid waste. The FEIR concluded that potential impacts would be less than significant because wastewater discharges from the sanitary needs of construction workers and groundwater dewatering could be accommodated by the Southeast Plant's existing treatment capacity, the SFPUC would be required to recycle construction and demolition debris pursuant to Section 708 and Chapter 14 of the San Francisco Environment Code to divert solid waste from landfills, and that the landfills the project would use have sufficient capacity for the maximum amount of potential waste. By complying with the local codes, the approved project would also be consistent with the California Integrated Waste Management Act of 1989 (AB 939). Regarding potential impacts due to operations, the FEIR identified that the project would increase water demand due to changes in processes and facilities (i.e., for the energy recovery facilities and the Maintenances Shops 1 and 2) and generate 820 cubic yards of solid waste (iron sponge media waste and siloxane media waste) annually from the new digester gas treatment facilities. As discussed in addendum 1 to the FEIR, the approved project would result in similar amounts of water use and solid waste as estimated in the FEIR.[81] The FEIR and addendum concluded that these impacts would be less than significant because the City's existing water supply could sufficiently meet the additional demand and that amount of solid waste constituted a small fraction of available, permitted landfill capacity.

Construction of the modified project would involve slightly more excavation (approximately 21,455 cubic yards more than the approved project) and would demolish an additional 15,270 square feet of existing buildings and structures. The modified project could require more groundwater dewatering due to the expansion of the project footprint within the Southeast Plant. However, any additional groundwater

[81] San Francisco Planning Department, SFPUC Biosolids Digester Facilities Project Addendum 1 to Environmental Impact Report, July 12, 2024.

dewatering required for construction of the modified project could be accommodated by the Southeast Plant's existing treatment capacity and wastewater discharges from the sanitary needs of construction workers would not change from the approved project. The increase in excavation and demolition would constitute a small fraction of available, permitted landfill capacity for solid waste. Similar to the approved project, the SFPUC would be required to divert waste from landfills during construction in accordance with the City code to recycle construction demolition and debris. These changes do not constitute a new or substantially more severe significant impact on utilities and service systems than the approved project.

Operation of the modified project would not use more water during operations than the approved project, because the new facilities would be operated by existing Southeast Plant employees and the modified project does not propose an increase in staff. The modified project would not introduce new work activities or additional staff that could result in more solid waste.

Therefore, the modified project would not result in new significant utilities and service systems impacts that were not previously identified in the FEIR; would not result in more severe impacts than those identified; and would not require new mitigation measures.

5.9.8 Public Services

The FEIR found that construction and operation of the approved project would have a less-than-significant impact on public services, because it would not result in a substantial increase in the local population as construction workers would likely be drawn primarily from the local and regional construction work force, and the new facilities would be operated by existing Southeast Plant employees. Addendum 1 to the FEIR determined that one additional employee as part of the approved project would not result in a substantial increase in the local population. The FEIR also concluded that incidents during construction that require law enforcement, fire protection, or emergency medical services would constitute an incremental increase in demand that would be temporary, could be accommodated by existing services, and would not require construction of new or physically altered facilities to maintain services.

Similar to the approved project, the use of construction equipment and traffic generated by construction workers commuting to the modified project's construction sites could increase the potential for accidents in the modified project area. However, any increase in the number of accidents during construction (no new staff would be added for operation) of the modified project would not be expected to exceed the capacity of existing emergency response services, local medical facilities, or other services to the extent that new emergency response facilities would need to be constructed. As with the approved project, operation of the modified project would not increase the local population, or otherwise affect the need for fire protection, police protection, schools, parks, or other public services (the construction of which could result in impacts on the environment), given that it would not result in an increase of staff at the Southeast Plant. Therefore, no expansion of such services, causing adverse physical impacts, would occur. As with the approved project, the modified project's impact related to public services would be less than significant.

Therefore, the modified project would not result in new significant impacts related to public services that were not previously identified in the FEIR; would not result in more severe impacts than those identified; and would not require new mitigation measures.

5.9.9 Hydrology and Water Quality

The FEIR determined that the approved project would have a less than significant impact on water quality related to stormwater runoff during construction and discharge of groundwater produced during dewatering. Construction would be subject to the regulatory requirements specified in San Francisco Public Works Code Section 146, Articles 4.1 and 4.2, as well as the State Water Quality Control Board's Construction General Permit, and implementation of the required control measures would adequately protect water quality. Similarly, the modified project would be subject to the regulatory requirements specified in Articles 4.1 and 4.2, and Section 146 of the San Francisco Public Works Code and as a result, there would be less-than-significant water quality impacts related to stormwater runoff and groundwater discharge during construction.

The FEIR and minor project modifications determined that operation of the approved project would have a less-than-significant impact on water quality standards, waste discharge requirements, and water quality. The approved project's required compliance with the Bayside National Pollutant Discharge Elimination System permit during operations would also ensure that discharges comply with applicable water quality standards and do not degrade water quality. The modified project includes the same treatment technologies as the approved project[82] and therefore would still be expected to comply with the Bayside National Pollutant Discharge Elimination System permit for effluent limitations and requirements. Therefore, the modified project would have less-than-significant water quality impacts during operations.

The FEIR determined that the approved project would have a less than significant impact on groundwater supplies or recharge during construction because the project would obtain and comply with a Batch Wastewater Discharge Permit for discharging groundwater from temporary construction dewatering into the combined sewer system pursuant to San Francisco Public Works Code Article 4.2 and construction dewatering would be temporary. Similarly, groundwater dewatering for the modified project would be temporary and would be required to comply with the same Batch Wastewater Discharge Permit. As a result, like the approved project, construction of the modified project would have less-than-significant impacts on groundwater supplies and recharge.

No long-term dewatering would be required for operation of the approved project, and the approved project would not withdraw groundwater from the Islais Valley Groundwater Basin for any other purposes during operation. Similarly, the modified project would not require long-term groundwater dewatering or other use of groundwater, and would not result in an increase in impervious surfaces. As discussed in the FEIR, no wells that utilize groundwater are present within 0.5 mile of the approved project site. As a result, like the approved project, operation of the modified project would have less-than-significant impacts on groundwater supplies and recharge.

The FEIR determined that the approved project would have a less than significant impact on the exposure of people or structures to risk of loss, injury, or death involving flooding under current conditions, future conditions resulting from sea level rise, or inundation by seiche or tsunami. The FEIR found that most project components were not within an existing 100-year flood zone and were not within a potential tsunami inundation zone shown on Map 5 of the Community Safety Element of the San Francisco General Plan or on

[82] Including the interim sidestream treatment facility, which was incorporated into the approved project after FEIR certification. SFPUC Biosolids Digester Facilities Project Minor Project Modification 17 – Interim Sidestream Nutrient Removal, reviewed by San Francisco Planning Department February 12, 2024

statewide maps prepared by the California Emergency Management Agency,[83] with the exception of the Piers 94 and 96 staging areas. However, because those staging areas would be temporarily used, would not involve the placement of permanent structures within the 100-year flood zone, and would be subject to the City emergency warning system as well as an operations plan with best management practices for construction-related hazardous materials storage, the FEIR concluded that use of the staging areas would have a less than significant effect on the risk of loss, injury, or death related to flooding or inundation by seiche or tsunami. Similarly, the modified project includes construction worker vehicle parking at 2 Rankin Street, an area within the Federal Emergency Management Agency flood zone, for temporary use during construction and would not involve the placement of structures. The proposed modifications are not within mapped seiche or tsunami zones; accordingly, the modified project would result in less-than-significant impacts related to exposing people or structures to inundation from seiche, tsunami, or mudflow during operation.

The FEIR determined that the approved project would not exceed the capacity of stormwater drainage systems or provide additional sources of polluted runoff because the project would comply with the City's Stormwater Management Ordinance and Stormwater Management Requirements and Design Guidelines. The modified project would also comply with the City's Stormwater Management Ordinance and Stormwater Management Requirements and Design Guidelines, and therefore would have a less-than-significant impact on stormwater drainage systems.

In summary, the modified project would not result in new significant hydrology and water quality impacts that were not previously identified in the FEIR; would not result in more severe impacts than those identified; and would not require new mitigation measures.

5.9.10 Hazards and Hazardous Materials

The FEIR disclosed that, during construction, the approved project would transport, store, and use routine hazardous materials (i.e., fuels, lubricants, and solvents for construction vehicles and equipment). The FEIR concluded that potential impacts would be less than significant because the SFPUC must comply with California Highway Patrol regulations related to transport of hazardous materials, implement site-specific best management practices like proper storage and secondary containment to prevent spills consistent with San Francisco Public Works Article 4.2 (Construction Site Runoff Controls) and the requirements of a Construction General Stormwater Permit from the State Water Resources Control Board, and comply with other applicable state and federal laws. The same types of hazardous materials would be used during construction of the modified project, and the SFPUC would be required to continue transporting and managing the materials properly in accordance with the local, state, and federal laws, as discussed above.

During operation, the FEIR discussed that the approved project would increase the quantity of several chemicals used at the Southeast Plant, use diesel for a backup generator, and may require periodic disposal of hazardous wastes (i.e., fluorescent light tubes), but that impacts would be less than significant, because the SFPUC would be required to update the Hazardous Materials Business Plan for the Southeast Plant that is on file with the San Francisco Health Department pursuant to Article 21 of the San Francisco Health Code and also comply with local, state, and federal regulations for hazardous materials use, storage, and disposal. Operation of the modified project would not introduce new types of chemicals beyond those identified in

[83] San Francisco Planning Department, Biosolids Digester Facilities Project Final Environmental Impact Report, Planning Department Case No. 2015-000644ENV, State Clearinghouse No. 2015062073 certified March 8, 2018.

the FEIR for operation of the approved project. Like the approved project, operation of the modified project would use hazardous materials in accordance with applicable laws.

The FEIR disclosed that the approved project includes the demolition of old structures that could contain hazardous building materials (i.e., asbestos and lead based paint). The approved project would abate building hazards pursuant to well-established regulations prior to demolition, and thereby impacts related to release of hazardous building materials into the environment would be less than significant. The modified project would demolish building SEP 850, which, similar to other structures demolished as part of the approved project, is likely to contain hazardous building materials such as asbestos-containing materials and lead-based paint. In accordance with Rule 11, Regulation 2, of the Bay Area Air Quality Management District, the SFPUC would be required to retain qualified contractors to identify the presence of asbestos-containing materials and complete removal of such materials prior to building demolition using methods that prevent visible asbestos emissions. Demolition activities would also be subject to: Section 3426 of the San Francisco Building Code and to the lead-in-construction standard regulated by the Occupational Safety and Health Administration of California, which aims to reduce the risk of exposing workers and the public to hazardous levels of lead; and California Code of Regulations Title 22 Sections 66261.24 and 66261.9, requiring specific handling of wastes with PCBs or otherwise considered "universal waste" in California. The modified project would comply with the same regulations regarding abatement of asbestos-containing materials, lead-based paint, and electrical equipment that could include polychlorinated biphenyls (PCBs), DEHP[84], or mercury vapors. The modified project would have less-than-significant impacts related to the release of hazardous building materials into the environment.

The FEIR disclosed that the approved project site and staging areas are known to contain contaminated soil and groundwater. The FEIR queried regulatory databases for information about the Southeast Plant as well as surrounding areas within one-quarter mile and found that the Southeast Plant, the Central Shops, and the Asphalt Plant are included on a list of hazardous materials sites compiled by one or more government regulatory agencies. The FEIR concluded that construction of the approved project would be required to comply with Article 22A of the San Francisco Health Code (the Maher Ordinance, which regulates the handling of hazardous soils), Article 22B of the San Francisco Health Code (the San Francisco Dust Control Ordinance, which regulates dust from construction sites), San Francisco Public Works Code Section 147 (construction site runoff controls), Article 4.1 of the San Francisco Public Works Code (groundwater dewatering controls), Article 21 of the San Francisco Health Code (closure of underground storage tanks), California Code of Regulations Title 13 Division 2, Chapter 6 (handling of hazardous materials and wastes), and California Code of Regulations Title 22 Division 4.5, Chapters 13 and 29 (transport of hazardous wastes). The modified project includes ground disturbance outside of the approved project site but within the Southeast Plant. An updated review of regulatory databases found no additional hazardous materials sites within the modified project site.[85] Construction of the modified project would occur within the Southeast Plant under the same regulatory environment such that, like the approved project, it would not affect, or be

[84] Di(2-ethylhexyl) phthalate or DEHP is a manufactured chemical that was use in place of PCBs as a dielectric fluid in some fluorescent light ballasts and other electrical equipment.

[85] California Water Resources Control Board, Geotracker results for area surrounding 750 Phelps Street, San Francisco CA. https://geotracker.waterboards.ca.gov/map/?global_id=T10000016780, accessed September 19, 2024; California Department of Toxic Substances Control, Envirostor Hazardous Waste and Substances Site List (Cortese), https://www.envirostor.dtsc.ca.gov/public/search?cmd=search&reporttype=CORTESE&site_type=CSITES,FUDS&status=ACT,BKLG,COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+%28CORTESE%29, accessed September 19, 2024; California Environmental Protection Agency, Cortese List Data Sources, https://calepa.ca.gov/sitecleanup/corteselist/, accessed September 19, 2024.

affected by, existing soil and/or groundwater contamination that could expose the public and environment to new or more severe significant impacts.

The FEIR disclosed that the approved project could interfere with emergency access. Emergency access with the modified project is discussed in Section 5.3, Transportation and Circulation, above.

The FEIR concluded that the approved project would comply with the California Fire Code requirements for fire safety during construction and therefore result in less-than-significant impacts related to fire hazards. The same California Fire Code requirements would apply to the modified project, and the modified project does not include facilities or materials that would increase project fire hazards. The modified project would have less-than-significant impacts related to fire hazards.

Therefore, the modified project would not result in new significant impacts related to hazards and hazardous materials that were not previously identified in the FEIR; would not result in more severe impacts than those identified; and would not require new mitigation measures.

5.9.11 Mineral Resources, Energy Resources, and Water Use

The FEIR found that the project site and construction areas do not contain substantial mineral resources or locally important mineral resource recovery sites. Similarly, construction of the proposed modifications would not impact mineral resources, because the operations, engineering and maintenance buildings would be built within the same geologic units that the FEIR determined did not contain mineral resources.[86] Although construction of the modified project would require additional truck trips and associated energy use (for example, due to the additional 21,455 cubic yards of excavation; see Section 5.3, Transportation and Circulation), like the approved project, energy consumption during construction would not be wasteful because efficient equipment would be used pursuant to the City's Clean Construction Ordinance and Mitigation Measure M-AQ-1a (Construction Emissions Minimization) and consumption would be temporary such that it would also not result in long-term depletion of local or regional energy resources.

The FEIR discussed that energy, in the form of diesel, gasoline, and electricity would be consumed directly by construction equipment as well as indirectly through the energy needed to make the materials and components used in construction. The FEIR determined that impacts of construction energy use would be less than significant, because construction would be temporary and would therefore not result in long-term depletion of local or regional energy resources, would not be wasteful because efficient equipment and alternative fuels would be used per Mitigation Measure AQ-1a, and would recycle construction waste per Chapter 14 and Section 708 of the San Francisco Environment Code, which would reduce energy associated with extraction and manufacturing of new and raw materials.

Operation of the approved project would increase energy use (natural gas and electricity). The steam needed for digester operations would be generated by the steam boilers operating full time. However, the approved project would process digester gas into renewable natural gas offsetting a portion of natural gas that would have had to be extracted by others elsewhere. In addition, the approved project would also use the same amount of diesel for a back-up generator as conditions existing prior to project approval. The approved project would increase electricity use which would be supplied by hydroelectricity generated by

[86] Kohler-Antablin, S., *Generalized Mineral Land Classification Map of the South San Francisco Bay Production-Consumption Region*, 1996. Published by the California Department of Conservation Division of Mines and Geology.

City-owned facilities, except as identified below related to PG&E, and the SFPUC confirmed its ability to generate sufficient hydroelectricity to provide all the power for the approved project.

As part of the approved project (as reviewed by Addendum 1 to the Biosolids EIR), the developer of the biogas upgrade facility and deoxygenation system, together with PG&E, may elect to use PG&E's power for the biogas utilization system components. In this case, it would represent a small amount of overall power (approximately 1.6 megawatts out of a total of 6.6 megawatts) and, as of 2022, nearly 40 percent of PG&E's power comes from renewable resources. Therefore, the approved project's operations would not result in significant impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, because sufficient clean hydroelectricity would be available to supply the approved project, any portion of energy obtained from PG&E includes renewable resources, diesel use would not increase, and the approved project would offset a portion of natural gas usage elsewhere that would otherwise have been extracted. Regarding operation, the proposed operations, engineering and maintenance buildings would be designed to comply with LEED Gold standards, would incorporate solar panels into the building design, and would use up to approximately 0.60 megawatt annually. With the modified project, the annual operational energy needs of the Southeast Plant would be approximately 7.2 megawatts in 2045. The additional operational energy needs of the new operations, engineering, and maintenance buildings would also be provided by solar and hydroelectric power from SFPUC sources, and therefore modified project operations would result in less-than-significant impacts due to wasteful, inefficient, or unnecessary consumption of energy resources.

The FEIR discussed that potable water use during construction would not be wasteful, inefficient, or unnecessary, with compliance to Article 21 of the San Francisco Public Works Code, which requires the use of recycled water for dust control during construction unless a waiver is obtained from the City Water Department.[87] While the SFPUC obtained a waiver for the use of potable water for dust control, as allowed under applicable sections of Article 21, the use of this water would protect air quality and, in turn, public health, and therefore the modified project would result in less-than-significant impacts related to wasteful, inefficient, or unnecessary use of potable water during construction. Regarding operation, the FEIR discussed that the approved project would increase energy and water use; however, the FEIR concluded that the approved project's design maximizes using recycled water and/or other non-potable water to the extent possible in the new processes along with complying with the San Francisco Building Code and the San Francisco Water Efficient Irrigation Ordinance; furthermore, as discussed in the FEIR, the water would be used for wastewater treatment. Therefore, operation of the approved project would not result in the use of large amounts of water in a wasteful manner and operational impacts related to water usage would be less than significant. Like the approved project, the modified project design would maximize the use of recycled and other non-potable water to the extent possible and comply with the San Francisco Building Code and the San Francisco Water Efficient Irrigation Ordinance such that impacts related to water use would be less than significant.

Therefore, the modified project would not result in new significant impacts related to mineral resources, energy, and water use that were not previously identified in the FEIR; would not result in more severe impacts than those identified; and would not require new mitigation measures.

[87] San Francisco Public Works Code, Article 21, Sections 1101 and 1102.

6.0 Conclusion

Based on the foregoing, the San Francisco Planning Department concludes that the analyses conducted, and the conclusions reached, in the final FEIR certified by the San Francisco Planning Commission on March 8, 2018, and adopted by the San Francisco Public Utilities Commission on December 18, 2018, as well as in determinations made for subsequent minor project modifications and in Addendum 1 to the FEIR, remain valid. The modified project would not cause new significant impacts not identified in the FEIR, would not substantially increase the severity of the previously identified environmental impacts, and would not require new mitigation measures. No changes have occurred with respect to circumstances surrounding the modified project that would cause significant environmental impacts to which the modified project would contribute considerably to cumulative impacts, and no new information has become available that shows that the modified project would cause significant environmental impacts or a substantial increase in the severity of previously identified significant impacts. Therefore, no supplemental environmental review is required beyond this addendum.

I do hereby certify that the above determination has been made pursuant to State and local requirements.

Lisa Gibson
Environmental Review Officer

December 20, 2024
Date of Determination:

cc: Distribution List

Appendix A – Cumulative Projects

Appendix B – Air Quality Technical Memorandum and Health Risk Assessment Update

Appendix C – Historic Resources Evaluation Memorandum

Appendix D – Construction Equipment and Activity

Appendix E – Transportation Demand Estimate and Supporting Documentation

Appendix F – Greenhouse Gas Checklist

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APPENDIX A
CUMULATIVE PROJECTS

Appendix A Projects Considered in Cumulative Impact Analysis

Project No. in FEIR	Project Name (Project Sponsor)	Project Description	Construction Dates
1	Southeast Plant Headworks Replacement Project (SFPUC)	The project would construct a new 250 million gallon per day, all-weather headworks facility to provide better screening and grit removal at the SEP. The project would replace two existing headworks facilities, modify the Bruce Flynn Pump Station (BFS), and construct a new odor control facility. It would provide redundant infrastructure to provide reliability and ensure operational reliability. It would also improve the seismic reliability of the headworks facility and improve odor control. The project would modify and eventually demolish the influent control structure/Southeast Lift Station. The two existing headworks buildings (SEP 011 and SEP 012) would also be demolished. The project was modified to include upgrades to the Bruce Flynn Pump station to enhance reliability in wet weather events, modify influent sewer, remove a proposed new generator and the sewer construction in Evans Avenue, Rankin Street and Davidson Avenue. The modified project would also construct a new SEP 005 Southeast Lift Station and associated piping.	Spring 2018 to Spring 2026 (Revised from January 2017 to December 2021)
6	SEP Power Feed and Primary Switchgear Upgrades (SFPUC)	The objective of the project is to increase reliability, redundancy and capacity of the electrical system at Southeast Plant (SEP) to meet Sewer System Improvement Program (SSIP) level-of-service goals by upgrading the existing power feed by PG&E and obtaining a new feed by SFPUC Power Enterprise. The project will construct an elevated building to house the new Primary Power Switch Station and substructures to provide adequate power for the existing electrical loads and new SSIP facilities, upgrade/replace aging existing substations, install power monitoring and protection system for additional reliability and efficiency, as well as provide redundant services to the nearby pump stations.	January 2024 to May 2025 (Revised from November 2017 to January 2020)
11	SEP Repair and Replacement Treatment Plant Improvement Projects (SFPUC)	In order to maintain the operational reliability of existing facilities, ongoing repair and replacement activities are conducted including replacement of equipment that has reached the end of its useful life, is no longer operational due to continuous operation in a highly corrosive environment, or does not meeting current operational requirements.	Ongoing
12	Demolition of the Existing SEP Digesters and Southside Renovation Project (SFPUC)	This Phase II Sewer System Improvement Program (SSIP) project (Phase II has not yet been approved) would include demolition of the existing SEP digesters and associated control buildings, and improvements within the south side of the SEP. This project has not yet begun	After 2028 (Revised from after 2025)

Project No. in FEIR	Project Name (Project Sponsor)	Project Description	Construction Dates
		the planning phase and the SFPUC has not yet determined the specific improvements to be constructed.	
24	Quint-Jerrold Connector Road (San Francisco County Transportation Authority)[1]	This project would construct a new 950-foot-long roadway to provide access between existing Quint Street and Jerrold Avenue. The roadway would consist of two 13-foot-wide lanes (within a 50-foot-wide corridor), one northbound and one southbound. In addition, the project would construct or install several other elements along or beneath the length of the new roadway. Along the western side of the new roadway, the project would construct a new 5.5-foot-wide to 20-foot-wide sidewalk, depending on location; construct a new 27-foot-wide curb cut located along the San Francisco Wholesale Produce Market property (Project 25, below); and install street trees and street lighting. Along the eastern side of the new roadway, the project would construct a new 6.5-foot-tall reinforced concrete retaining wall. A new stop sign would be installed at the intersection of the new roadway and Jerrold Avenue. New sewer and water pipelines would be installed beneath the new roadway to provide on-site drainage and overall system reliability. The new road would support a potential new Caltrain station at Oakdale Avenue. The intersection with Jerrold Avenue also would accommodate trucks, although some movements would require wide turns. The San Francisco County Transportation Authority (SFCTA), Caltrain, and SF Public Works have coordinated project schedules to minimize the duration of the street closure.	Currently in the right-of-way acquisition phase. If successful, design would begin and construction could start in 2025. (Revised from later 2018 to 2019 depending on land acquisition)
25	San Francisco Market (formerly San Francisco Wholesale Produce Market) Expansion (City and County of San Francisco Market Corporation)[2]	This project consists of phased development to expand the existing San Francisco Wholesale Produce Market. The project would demolish the existing San Francisco Market buildings at the four quadrants of the main site, and would construct new buildings at each of the four quadrants. The project would include warehousing, office, meeting hall, and restaurant/café land uses. The new buildings would be 16 to 45 feet tall and would have a larger footprint than the existing buildings. The project and its associated roadway infrastructure would be built in about nine phases, over a period of approximately 16 years. It would start with the demolition of existing facilities at the SE Quadrant and construction of the 1900 Kirkwood Avenue building in January 2024, and would conclude with the occupancy of the 2000 Kirkwood Avenue building in June 2041. Phases 1 through 4 of the project include: Closure of Jerrold Ave between Toland and Rankin by the San Francisco Market; Demolition of the existing 455 Toland St building (NW Quadrant), and	2024 through 2041: Phases 1 through 4 would occur between 2024 and 2028

Project No. in FEIR	Project Name (Project Sponsor)	Project Description	Construction Dates
		grading for new surface parking lot; Vacation of Jerrold Ave, and other minor right-of-way areas at the Main Site; and Demolition of existing SE Quadrant Building and dock, and construction of 1900 Kirkwood Ave Building. The project would vacate Jerrold Avenue on the main site and reroute through-traffic around the main site on Innes Avenue, which will become the primary route for non-market destined traffic traveling through the area.	
27	Candlestick Point-Hunters Point Shipyard Phase I and II Development Project (Lennar Urban)[3]	This project would redevelop the 702-acre Candlestick Point-Hunters Point Shipyard area along the waterfront between south of India Basin and Candlestick Point. The project includes a mixed-use community with a wide range of residential, retail, office, research and development, civic, and community uses, and parks and recreational open space. In addition, a 300-slip marina would be constructed as would shoreline improvements to stabilize the shoreline. Phase I is already underway, including demolition of Candlestick Park Stadium. Phase II includes 6,225 units of housing (including rebuilding the Alice Griffith Public Housing), a regional retail center, a 220-room hotel, a performance venue, and 160 acres of new and revitalized open space.	Phased construction 2015 - 2035 (expect delays)
29	Pier 70 Waterfront Site (Forest City Development CA)[4]	This project consists of redevelopment of approximately 28 acres (identified as the "Waterfront Site") of the former industrial shipyard at Pier 70 and an additional 7 acres of land owned by the Port and PG&E. The site would be developed into a new mixed-use community with new commercial office development, new residential development, and a retail and arts component. New above-grade and below-grade parking and approximately 8 acres of new and expanded parks and shoreline access would be constructed. The project also includes the rehabilitation and adaptive reuse of Buildings 2, 12, and 21, which contribute to the eligible Pier 70 National Register Historic District. Overall, the project would construct a maximum of 4.2 million gross square feet in four phases over about 11 years. Two land use scenarios are under consideration, each with different amounts of commercial and residential land uses. The project would include up to 3,025 new residential units and up to 2.3 million square feet of commercial, restaurant, retail, and arts/light industrial land uses.	Phased construction 2018 - 2029 (expect delays)
30	Blue Greenway Project (Port of San Francisco)[5]	The Blue Greenway is the City's project to improve the City's southerly portion of the 500-mile, nine-county, region-wide Bay Trail, as well as the newly established Bay Area Water Trail and associated waterfront open space system. The alignment of the Blue Greenway generally follows the	Aqua Vista Park to be completed by 2025-2026

Project No. in FEIR	Project Name (Project Sponsor)	Project Description	Construction Dates
		alignment of the Bay Trail and Bay Area Water Trail from Mission Creek on the north to the County line on the south. Remaining parks: Warm Water Cove Park (in future after 2030), Pier 70 Parks (2028-2029) and Aqua Vista Park (would be completed by 2025-2026). The Port expects to complete all Blue Greenway projects within its jurisdiction by 2035.	
39	India Basin Mixed-Use Development (Build, Inc. and San Francisco Recreation and Parks Department)[6]	This project would encompass publicly and privately owned parcels, including existing streets, totaling approximately 38.8 acres at 700 Innes Avenue, 900 Innes Avenue, India Basin Shoreline Park, and India Basin Open Space locations. The project at 700 Innes Avenue would develop 17.12 acres of privately owned land plus 5.94 acres of developed and undeveloped public rights-of-way in phases; proposed uses include residential, retail, commercial, office, research and development/laboratory and clinical care space, institutional, flex space, recreational and art uses, parking, and a shoreline network of publicly accessible open space. The project at 900 Innes Avenue, India Basin Shoreline Park, and India Basin Open Space would include improvement of 14.2 acres of publicly owned parcels along the shoreline plus 1.58 acres of unimproved "paper" streets to create a publicly accessible network of new and/or improved parkland and open space. This new shoreline network would extend the Blue Greenway/Bay Trail and would provide pedestrian and bicycle connections to and along the shoreline, fronting San Francisco Bay.	On hold (Revised from 2018 – 2024)
40	San Francisco Gateway Project (Prologis, Inc.)[7]	The San Francisco Gateway Project would demolish the four existing single-story buildings at 749 Toland Street and 2000 McKinnon Avenue and construct two new multi-story buildings that would provide new production, distribution, and repair (PDR) space in the city. Each building would be approximately 97 feet tall and would have a maximum height of 115 feet, including rooftop appurtenances. The two new buildings would include PDR space, a logistics yard, vehicular circulation systems, and ground-floor retail spaces; they would total 2,160,000 gross square feet. The proposed project would convert Kirkwood Avenue (along the northern side of the project site, between Toland and Rankin streets) to a single-lane, eastbound one-way street; and convert a portion of McKinnon Avenue (along the southern side of the project site, between Toland and Selby streets) to a single-lane, westbound one-way street. Construction is anticipated to take approximately 31 months. Approximately 140,600 cubic yards of soil would	Summer 2026 through Winter 2028 (Revised from TBD)

Project No. in FEIR	Project Name (Project Sponsor)	Project Description	Construction Dates
		be excavated for the proposed project. The EIR also analyzes an expanded streetscape variant, which would improve the public right-of-way surrounding the project site.	
	Channel Force Main Intertie (SFPUC)	The existing 66-inch Channel Force Main transports wastewater from the northeastern part of San Francisco to the Southeast Treatment Plant. The Channel Force Main Intertie Project will increase reliability, provide operational flexibility, and allow for future inspections and maintenance. This project will construct a new pipeline connection and control systems along the existing force main. The project will also install control panels in the sidewalk along Cesar Chavez Street, between Indiana and Pennsylvania Streets, and replace existing air valves at two locations on Indiana Street, near the 20th Street and 25th Street intersections.	January 2024 - December 2025
	City Distribution Division Headquarters Project (SFPUC)[8]	This project would establish a new City Distribution Division (CDD) headquarters at 2000 Marin Street that would replace the existing CDD yards located at 639 Bryant and 1990 Newcomb. The proposed CDD headquarters would consist of an administrative building, car shop, machine shop, meter shop, warehouse, fabrication shop, paint and autobody shop, auto shop, landscape shop, a parking garage, outdoor vehicle and equipment parking, outdoor storage and laydown area, outdoor space, and a fuel station.	January 2025 - December 2027
	3433 3rd Street (Equity Community Builders)[9]	The proposed project would construct an approximately 16,194 gross square-foot (sf), two-story, office and assembly building with surface parking with an approximate 9,441 sf ground floor footprint. The proposed project would include a 7,364 sf of union assembly/meeting hall, 8,830 sf of office space which includes 2,646 sf of elevators and corridors, 4,215 sf of landscaped area, and 9,372 sf of parking area. The project site is approximately 25,968 sf in area.	Under review with SF Planning
	Bay Corridor Transmission and Distribution (Phase 3 and 4) (SFPUC)	The San Francisco Public Utilities Commission Power Enterprise is building a high voltage transmission and distribution system in the Southeast portion of the city. It is intended to serve existing and future customers with large power needs. There are four phases of the project; phases 1 and 2 were completed in 2022. Phase 3 - 1535 Davidson Avenue - Power Distribution System - builds a new electrical substation at 1535 Davidson Avenue. Phase 4 - The Project proposes the following improvements in the City's Bayview District: Installation of	Phase 3 construction on-going with completion by Winter 2024. Phase 4 construction August 2024-May 2026

Project No. in FEIR	Project Name (Project Sponsor)	Project Description	Construction Dates
		a new duct bank from the intersection of Evans Avenue and Rankin Street to 2000 Marin Street. Replacement of existing 12-inch and 8-inch cast iron potable water mains with new 12-inch ductile iron pipe mains along three segments (Evans Avenue from Napoleon Street north to the existing Evans Avenue bridge near Cesar Chavez Street, Marin Street from Evans Avenue to the Marin Street terminus, and Cesar Chavez Street from Evans Avenue to Mississippi Street). This project component involves: the replacement of water main appurtenances including valves, fire hydrants, and water service; and extension and modernization of the existing emergency water system from the intersection of Evans Avenue and Marin Street to the Marin Street terminus; installation of high-pressure fire hydrants and high pressure valves. Ancillary work including ADA curb ramp upgrades, traffic signal related improvements, and restoration of traffic markings and striping.	
	SEP HVAC and Mechanical Upgrades (SFPUC)	The SFPUC proposes to repair and replace various HVAC equipment and mechanical systems at the Southeast Plant.	December 2022 - Winter 2025
	SEP 545 Electrical Controls Upgrade (SFPUC)	The project would conduct electrical service upgrades and repairs to existing facility valve controls adjacent to the Southeast Plant, Bruce Flynn Pump Station, and Booster Pump Station (adjacent to Islais Creek) to maintain permit compliance and support operational reliability and resilience. Key project scope includes selective demolition of the existing and installation of new power feeders and fiber optic cable between Bruce Flynn Pump Station through the new and existing duct bank to the valve vault and existing pull box; new control panel; new automatic transfer switch, input/output unit; pump station ventilation; bollards; associated conduit and wiring, miscellaneous site and vault upgrades as required.	Spring 2023 - Fall 2024
	1399 Marin Transit Service Operations and Maintenance Plan (SFMTA)[10]	The existing diesel hybrid fleet of approximately 88 buses will be moved from the Kirkland Transit Facility near Fisherman's Wharf to operate from the Islais Creek Transit Facility located at 1301 Cesar Chavez Street, with bus storage and repair-level maintenance occurring at the 1399 Marin facility, located across Indiana Avenue from Islais Creek facility site. Minimal improvements to the site (replacement or upgraded fencing, improved yard lighting, which likely will include some minor trenching and spot repavement of the surface yard area) are planned. No improvements are planned for the interior of the building on site.	Spring - Winter 2025

Project No. in FEIR	Project Name (Project Sponsor)	Project Description	Construction Dates
	Additional Newcomb Yard Improvements (SFPUC)	This program will fund interim improvements at CDD Headquarters at 1990 Newcomb Avenue that are required to address health and safety concerns and to renovate existing facilities to accommodate the division's staffing needs while a new SFWD Headquarters at 2000 Marin is designed and constructed. Interim improvements include: re-roofing the Administration, Shops and Warehouse Building; Emergency Communication Facilities at Newcomb Yard and Lake Merced Pump Station; developing approximately 4,000 square feet of new office space; renovating the Shops Building mechanical systems; developing Incident Command Structure facilities; developing access control systems; and street and sidewalk improvements.	2025 - 2027
	Islais Creek Bridge Project (San Francisco Public Works)[11]	The City and County of San Francisco is proposing to replace the existing Islais Creek Bridge along Third Street in San Francisco's Bayview neighborhood. Construction of the proposed project would result in the replacement of the existing drawbridge with a fixed bridge and large ships would no longer be able access the Islais Creek channel west of the new bridge. Throughout the construction duration, there would be no access for vehicles, the T-Third Street light rail service, or pedestrians to the bridge or Third Street between Marin Street to the north and Cargo Way to the south. Vehicles would be detoured around the site to other routes. T-Third Street passengers would use bus shuttles in lieu of light rail service south of Islais Creek Bridge and the 15 Bayview Hunters Point Express and 91 Third Street/19th Avenue OWL buses would be detoured around the project site.	Spring 2026 -Spring 2028
	Bayview Train Caltrain Station (SFCTA)[12]	The San Francisco County Transportation Authority is proposing a new Caltrain Station in the Bayview community at either Oakdale (Quint Street between Oakdale and Jerrold avenues) or Evans Avenue (between Selby and Rankin streets).	Unknown

NOTES

Projects with numbers were included in the FEIR Cumulative Projects List, with locations shown on FEIR 4.1-1. Projects completed since the FEIR have been removed from the cumulative list. Projects with no numbers are new projects.

SOURCES

Project descriptions without noted sources were prepared by the SFPUC.

1 San Francisco Planning Department, Mitigated Negative Declaration, Quint-Jerrold Connector Road Project, Case No. 2013.0858E, August 5, 2015. Schedule update from SFCTA website project page: https://www.sfcta.org/projects/quint-jerrold-connector-road; accessed January 9, 2024.

2 San Francisco Planning Department, Addendum 2 to Mitigated Negative Declaration, San Francisco Market Project (formerly SF Produce Mart), Case No. 2009-1153ENV-03, July 27, 2022. Available at sfplanning.org/sfceqadocs.

3 City and County of San Francisco, Office of Community Investment and Infrastructure, Hunters Point Shipyard Phase 1 and 2/Candlestick Point. Available online at Hunters Point Shipyard Phase 1 and 2/Candlestick Point | Office of Community Investment and Infrastructure (sfocii.org). Accessed July 8, 2024.

4 San Francisco Planning Department, Pier 70 Mixed-Use District Project Final EIR, Case No. 2014-001272ENV, certified August 24, 2017. Addendum to Environmental Impact Report dated April 16, 2018. Available at sfplanning.org/sfceqadocs. Accessed July 8, 2024.

5 Port of San Francisco, https://sfport.com/projects-programs/blue-greenway; Accessed January 23, 2024.
6 San Francisco Planning Department, India Basin Mixed-use Project, Case No. 2014-002541ENV, Final EIR certified July 26, 2018. Available at sfplanning.org/sfceqadocs. Accessed July 8, 2024.
7 San Francisco Planning Department, San Francisco Gateway Project, Case No. 2015-012491ENV, State Clearinghouse No. 2022030286, Draft EIR. Available at sfplanning.org/sfceqadocs. Accessed July 8, 2024.
8 San Francisco Planning Department, SFPUC City Water Distribution Division Campus Project at 2000 Marin Street, Case No. 2022-000702ENV, Preliminary Mitigated Negative Declaration, June 18, 2024. Available at sfplanning.org/sfceqadocs.
9 San Francisco Planning Department, San Francisco Planning Department Public Portal. Available: https://aca-prod.accela.com/ccsf/Cap/CapDetail.aspx?Module=Planning&TabName=Planning&capID1=23CAP&capID2=00000&capID3=009CS&agencyCode=CCSF. Accessed December 1, 2023.
10 SFMTA, 1399 Marin Facility Improvements, https://www.sfmta.com/projects/1399-marin-facility-improvements. Accessed July 8, 2024.
11 San Francisco Planning Department, Islais Creek Bridge Project, Case No. 2022-000112ENV, Draft EIR, November 29, 2023. Available at sfplanning.org/sfceqadocs.
12 SFCTA, Bayview Caltrain Station Location Study. Available at: https://www.sfcta.org/bayview-caltrain. Accessed July 8, 2024

APPENDIX B
AIR QUALITY TECHNICAL MEMORANDUM AND HEALTH RISK ASSESSMENT UPDATE

AIR QUALITY MEMO

Date: **October 11, 2024**

To: **Tiffany Edwards, ESA**
Karen Lancelle, ESA
Josh Pollak, San Francisco Planning Department

From: **Michael Keinath, PE**
Rei Zhang

Subject: **Air Quality Health Risk Assessment Update for the Biosolids Digester Facilities Project: SEP-7 Operations, Engineering and Maintenance Buildings**

As part of the original environmental analysis effort in 2017, for the construction and operation of the San Francisco Public Utilities Commission's (SFPUC) Southeast Plant (SEP) Biosolids Digester Facilities Project (BDFP or "the Project"), Ramboll conducted California Environmental Quality Act (CEQA) analyses of greenhouse gases (GHGs), criteria air pollutants (CAPs) and precursors, as well as a health risk assessment (HRA) based on exposure to toxic air contaminants (TACs). Analysis methodology and results were documented in an Air Quality Technical Report (AQTR, 2017), which was incorporated into the Final Environmental Impact Report (FEIR).[1,2] The approved project to date includes one addendum (Addendum 1), which analyzed the potential impacts of constructing and operating a biogas utilization system at the SEP plant.

SFPUC is proposing to modify the approved BDFP to construct the SEP operations, engineering, and maintenance buildings (SEP-7), instead of the originally planned and approved Maintenance Shops 1 and 2 within the SEP along Jerrold Avenue. The SEP-7 area would be adjacent to but outside of the BDFP project site evaluated in the FEIR. SEP-7 would also replace an existing 500 kVA emergency backup generator with two new 750 kVA generators.[3] The two new generators would be at minimum Tier 3 compliant; due to the lack of specifications for the two new generators, both Tier 3 and Tier 4 Final generators were analyzed.

This memorandum analyzes the effects of this proposed modification on construction and operational emissions and health risks. GHG emissions are evaluated for SEP-7 operations only, as the BAAQMD does not identify a significance threshold for construction-related GHG emissions.

The Maintenance Shops 1 and 2 were originally analyzed in the BDFP FEIR as part of the construction and operations emissions estimation and health risk assessment. This analysis estimates SEP-7 emissions and health risk independently before adding them to the construction and operational

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[1] Ramboll. 2017. Air Quality Technical Report. March. Available upon request.

[2] City and County of San Francisco. 2017. Biosolids Digester Facilities Project. May. Available at: https://ceqanet.opr.ca.gov/2015062073/2

[3] Project Description for the SEP-7 Maintenance and Trades Buildings Project, provided on 8/8/2024.

emissions and health risk results from the approved project,[4] which is conservative for the following reasons:

1. Actual BDFP construction emissions have been much lower than estimated in the FEIR;[5] however, this analysis adds SEP-7 to the approved project, which consists of the construction emissions and health risks previously estimated in the FEIR including the former project design of Maintenance Buildings 1 and 2, as well as the operational emissions and health risk from Addendum 1 (the biogas addendum)
2. First analyzing SEP-7 as an individual project would be conservative with regard to exposure assumptions used in the cancer risk analysis, as it would assume a resident is exposed from the third trimester, with the highest exposure numbers; whereas the SEP-7 project would not actually have construction activity in the first year of approved project construction, since that construction began in January of 2020.
3. Adding the maximum individual project health impacts from SEP-7 onto the maximally exposed individual sensitive receptors (MEISR) impacts for the approved project is also conservative since this assumes that the maximum impact from both analyses could be occurring at the same location, when the maximum impacts from each could be in different locations.

OVERVIEW OF PROPOSED CHANGES

As described in the FEIR, Maintenance Shops 1 consisted of a 30-foot-tall building with a footprint of approximately 12,600 square feet and a total floor area of 19,600 square feet. Maintenance Shops 2 consisted of a 15-foot-tall building with a total footprint and floor area of 5,500 square feet.

Instead of Maintenance Shops 1 and 2, the SFPUC proposes to modify the project to construct SEP-7, which would also consist of two buildings (SEP 603 and SEP 914). These modifications are described in more detail in the Project Description for the SEP-7 Operations, Engineering and Maintenance Buildings Project. The modification would also demolish the existing building (SEP 850), two pre-fabricated trailers (SEP 850A and 850B), and the adjacent, paved surface parking lot (a total area of approximately one acre), instead of existing building (SEP 870) as covered in the FEIR. The proposed Mechanical Maintenance building (SEP 603) would consist of an approximately 8,700-square-foot, 35-foot-tall two-story building (including mezzanine) at the corner of Jerrold Avenue and Phelps Street (accessed from Jerrold Avenue). The proposed Operations, Engineering, and Maintenance building (SEP 914) would consist of an approximately 34,600-square-foot, 50-foot-tall three-story building located along Jerrold Avenue between the proposed Mechanical Maintenance building and existing building SEP 870 (also accessed from Jerrold Avenue). Proposed staging areas would be on-site at the SEP and in front of the project site along the parking strip on Jerrold Avenue.

SEP-7 construction would also temporarily relocate SFPUC operational activities in existing Building 850 to the existing 1900 Jerrold Avenue building, within existing Building 870, and to newly constructed temporary shower trailers in the parking area adjacent to Building 870. Activities associated with connections to existing and new utilities, the construction of a utility enclosure for a

[4] The approved project consists of the FEIR and Addendum 1, which analyzed the potential impacts of constructing and operating a biogas utilization system at the SEP plant.

[5] This memorandum builds upon previous analyses done for the biogas utilization system, a previous addendum to the BDFP FEIR. For that project modification, actual construction hours to date were used to estimate emissions. Actual construction activity (horsepower hours) and thus emissions are lower than those estimated in the FEIR.

new chiller, and construction staging would be limited and are accounted for by the overall construction activity occurring with the SEP-7 project construction footprint.

The proposed SEP-7 modification represents an increase in building square footage from the original Maintenance Shops 1 and 2. Project construction would occur outside the project area analyzed in the FEIR, including construction closer to Phelps Street.

Construction Emissions Analysis

Ramboll utilized California Emission Estimator Model version 2022.1 (CalEEMod) and its equivalent methodologies to quantify construction CAP emissions for the SEP-7 project. Emissions are estimated for on-site exhaust, mobile exhaust,. and architectural coatings from six construction subphases. As described below, Ramboll updated several default assumptions to reflect Project-specific information to generate emission estimates.

The construction schedule is shown in **Table 1**. The off-road equipment list is shown in **Table 2**; off-road equipment quantities, utilization, and fuel types were provided by SFPUC. Equipment load factor and horsepower were assumed to be CalEEMod default. These parameters were used along with CAP and GHG emission factors to calculate offroad emissions. Emissions assume compliance with FEIR Mitigation Measure M-AQ-1a, which is the scenario using Tier 4 Final equipment for all equipment greater than or equal to 140 horsepower. Equipment with horsepower less than 140 horsepower were assumed to be Tier 2 equipment with a Diesel Particulate Filter (DPF). This mitigation measure also includes renewable diesel for all diesel offroad equipment and on-road haul trucks.

Construction on-road vehicle trip rates are shown in **Table 3**. All worker vehicles were assumed to be fueled by gasoline, and all vendor vehicles and haul trucks were assumed to be fueled by diesel. On-road emissions were calculated using emission factors from the California Air Resources Board's (CARB) Emission FACtor onroad emissions model (EMFAC2021). Construction emissions are also generated from architectural coatings, as shown in **Table 4**.

The control measures incorporated into the emission estimates for the controlled scenario are consistent with the engine requirements outlined in FEIR Mitigation Measure M-AQ-1a for construction emissions.[6] Summarized CAP and GHG emissions from SEP-7 construction are presented in **Table 5**.

For construction emissions, only diesel particulate matter (DPM) and $PM_{2.5}$ emissions from vendor and hauling trucks were included in the HRA. Construction worker vehicle trips were assumed to be gasoline-fueled and thus not a source of diesel particulate matter. Therefore, construction worker vehicle emissions were not included in the health risk assessment.

All construction equipment was assumed to be diesel-fueled, such that the only TAC evaluated in the health risk assessment is DPM.

Operational Emissions Analysis

Ramboll calculated emissions from the existing 500kva and the two new 750kva backup generators, as shown in **Table 6**. Generator emissions were calculated assuming 50 hours of emergency use in accordance with the San Francisco Planning Department's Air Quality and Greenhouse Gas Analysis

[6] This is the scenario using Tier 4 Final equipment for all equipment greater than or equal to 140 horsepower. Equipment with horsepower less than 140 horsepower were assumed to be Tier 2 equipment with a Diesel Particulate Filter (DPF). Emissions also include renewable diesel for all diesel offroad equipment and on-road haul trucks.

Guidelines.[7] The existing generator's emissions were calculated using emission factors from the generator specifications. Due to the lack of specifications for the two new generators, Ramboll analyzed both Tier 3 and Tier 4 Final generators and conservatively used a power factor of 1 to convert from kva to kW (apparent to actual power).[8]

Air Dispersion Modeling Methodology

Ramboll modeled the SEP-7 sources at the proposed project location, sourced from the project description, shown in **Figure 1**. The construction area was modeled as a single area emissions source, consistent with parameters used for modeling construction in the AQTR. The generators were modelled using information from the generator specification sheets (existing generator) or the BAAQMD's default generator modeling parameters[9] (proposed generators) and the locations provided by SFPUC. Construction traffic routes were not separately modeled and all on-road traffic emissions were conservatively assigned to the construction area source.[10]

Health Risk Assessment Methodology

Project construction would generate TAC emissions, specifically DPM. Per the Consolidated Table of California Office of Environmental Health Hazard Assessment (OEHHA)/CARB Approved Risk Assessment Health Values, DPM can cause cancer and non-cancer chronic health impacts; DPM has no acute toxicity value. Sources of DPM included in the HRA include: vendor truck trips, hauling truck trips, offroad equipment associated with construction, and operational emergency generator emissions.

During the previous health risk assessment associated with the BDFP FEIR, long-term health impacts (such as cancer risk, chronic HI, and $PM_{2.5}$ concentrations) from Project construction and operations were evaluated at sensitive receptors (such as residences), and the MEISR were identified.

Ramboll conducted a health risk assessment for the SEP-7 operations, engineering and maintenance buildings consistent with OEHHA's 2015 Guidance Manual for Preparation of Health Risk Assessment[11] and the 2022 BAAQMD CEQA Guidelines.[12] Following these guidance documents for assessing impacts to exposed populations from emissions resulting from a project's construction, sensitive receptors were evaluated as a fetus *in utero* at the beginning of the third trimester at the start of SEP-7 construction until the end of construction. The exposure parameters for residential receptors are presented in **Table 8**. This approach is conservative because it places the proposed SEP-7 construction activity in the earliest years of exposure, which have the highest intake factors and thus

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[7] SF Environmental Planning. 2024. Air Quality and Greenhouse Gas Analysis Guidelines. Available at: https://sfplanning.org/air-quality

[8] While a power factor of 0.8 is typical, the use of a power factor of 1 is conservative, as emissions are calculated using emission factors in units of g/hp-hr.

[9] BAAQMD. 2023. California Environmental Quality Act Air Quality Guidelines, Appendix E: Recommended Methods For Screening and Modeling Local Risks and Hazards. April.

[10] The construction routes for SEP-7 will include previously modeled routes for the BDFP. Ramboll has previously performed analyses to determine that contributions from construction traffic are small at the MEIR, and that a worst-case screening (worst-case construction traffic) would not result in an exceedance of CEQA thresholds; see MPM 16, available upon request.

[11] OEHHA. 2015. Air Toxics Hot Spot Program. Risk Assessment Guidelines. Guidance Manual for Preparation of Health Risk Assessments. February. Available online at: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf

[12] BAAQMD. 2023. California Environmental Quality Act Air Quality Guidelines. April.

contribution to health risk impacts (i.e., as would be done if SEP-7 was a standalone project, rather than a part of the BDFP project even though the SEP-7 project would actually be built toward the end of the BDFP project). Operations were assumed to start immediately after construction, with the total exposure duration for the health risk assessment set at 30 years (2 years of construction and 28 years of generator operation). The maximum cancer risk, chronic HI, and $PM_{2.5}$ concentrations for the Tier 3 generators scenario are shown in **Table 9a** and the maximum cancer risk, chronic HI, and $PM_{2.5}$ concentrations for the Tier 4 Final generators scenario are shown in **Table 9b**. The maximum health impacts occur at different locations between the Tier 3 and Tier 4 scenarios.

As mentioned above, the SEP-7 operations, engineering and maintenance buildings are a component of the BDFP; therefore, the health risks from SEP-7 construction were then conservatively added to the previously identified MEISRs from BDFP Project construction in the FEIR, as shown also in **Table 9a** and **9b** and **Figure 2**. **Table 9** also includes the results of the cumulative risk assessment, which estimates excess lifetime cancer risks and $PM_{2.5}$ concentrations that are attributable to other mobile and stationary sources within the Project vicinity, in addition to impacts from the Project. The cumulative sources analyzed remained consistent with the AQTR, and consist of additional projects in the surrounding area that will be under construction during the construction and operation of the BDFP, as well as an update of the background risks from the health risks database from the 2020 San Francisco Citywide HRA.[13,14]

RESULTS

Construction Emissions

Table 7 and **Table A** (below) show CAP and GHG construction emissions from the proposed construction of the SEP-7 operations, engineering and maintenance buildings project.

[13] The San Francisco Planning Department evaluated citywide the cumulative cancer risks and $PM_{2.5}$ concentrations from existing known sources of air pollution in 2014 as part of the development of a Community Risk Reduction Plan (CRRP) and corresponding HRA database (CRRP-HRA) and this was used in the AQTR. Since the certification of the FEIR with the AQTR in 2018, the cumulative health risks were re-evaluated and the Citywide HRA was updated in 2020, supplanting the former CRRP-HRA. As requested by the SF Planning Department, this analysis uses the updated Citywide HRA for the cumulative risk assessment.

[14] San Francisco Department of Public Health (SFDPH), San Francisco Planning Department, and Ramboll. 2020. San Francisco Citywide Health Risk Assessment: Technical Support Documentation.

Table A: Average Daily Criteria Air Pollutant and Greenhouse Gas Construction Emissions from SEP-7 Alone

Year	ROG (lb/day)[1]	NOx (lb/day)[1]	PM_{10} (lb/day)[1]	$PM_{2.5}$ (lb/day)[1]	CO_2e (MT/year)[1]
2025 (1st year of SEP-7 construction)	0.3	11	0.07	0.07	405
2026 (2nd year of SEP-7 construction)	1.3	6.5	0.05	0.05	431
2027 (3rd year of SEP-7 construction)	2.4	8.6	0.06	0.06	216
BAAQMD Thresholds[2]	54	54	82	54	N/A
Exceed Thresholds?[2]	N	N	N	N	N/A

Notes:

1. SEP-7 emissions shown here assume compliance with FEIR Mitigation Measure M-AQ-1a and were sourced from the attached Table 5.
2. The BAAQMD construction thresholds do not include thresholds for greenhouse gases.

The Conceptual Engineering Report schedule, which was used in the FEIR, placed the construction of Maintenance Shops 1 and 2 in Years 2-4. **Table B** below therefore shows the SEP-7 emissions added to the FEIR controlled construction emissions for Years 2-4; Years 1 and 5 are the same as presented in the FEIR.

As shown in the tables, CAP emissions for the summation of BDFP and SEP-7 construction would exceed thresholds for NOx in Years 2 and 3; the BDFP Project as analyzed in the FEIR would exceed the NOx threshold in Years 1 and 3 only.

Table B: Average Daily Construction Emissions from SEP-7 Combined with BDFP FEIR Emissions Years 2-4

Year[1]	ROG (lb/day)[1]	NOx (lb/day)[1]	PM_{10} (lb/day)[1]	$PM_{2.5}$ (lb/day)[1]
1st year of SEP-7 construction plus FEIR Year 2	10	**56**	0.7	0.7
2nd year of SEP-7 construction plus FEIR Year 3	11	**62**	0.7	0.7
3rd year of SEP-7 construction plus FEIR Year 4	15	48	0.6	0.6
BAAQMD Thresholds	54	54	82	54
Exceed Thresholds?	N	Y	N	N

Notes:

1. The FEIR Conceptual Engineering Report schedule, which was used in the FEIR, placed the construction of Maintenance Shops 1 and 2 in Years 2-4, which is how the mapping between calendar year and FEIR Year was determined. Construction CAP emissions from the BDFP FEIR are sourced from Table 4c of the AQTR and are consistent with Table 4.8-9 of the FEIR. Construction CAP emissions from the SEP-7 operations, engineering and maintenance buildings are sourced from the attached Table 5 and were added to FEIR Years 2-4. **Bold** represents exceedances of the threshold.
2. BDFP and SEP-7 emissions shown here assume compliance with FEIR Mitigation Measure M-AQ-1a.

These summed emissions are conservative because the SEP-7 construction activities were added to the construction emissions from the FEIR years two through four while the construction emissions that would have occurred from the construction of Maintenance Shops 1 and 2 were not removed. In addition, as a part of separate analyses conducted for the biogas utilization system (Addendum 1, 2024), Ramboll computed actual emissions from BDFP construction for Years 1 through 3, which showed that actual construction emissions are lower than estimated in the FEIR due to fewer construction equipment hours. **Table 7b** and **Table C** show the SEP-7 emissions added to the FEIR actual construction emissions for Years 2-3, since actual construction emissions were only available for Years 1-3 and again this analysis adds SEP-7 to BDFP FEIR Years 2-4.

Table C: Average Daily Construction Emissions from SEP-7 Combined with BDFP Actual Construction Emissions

Year	ROG (lb/day)[1]	NOx (lb/day)[1]	PM_{10} (lb/day)[1]	$PM_{2.5}$ (lb/day)[1]
Year 1 of SEP-7 plus Year 2 of BDFP actual emissions	4.5	47	0.4	0.4
Year 2 of SEP-7 plus Year 3 of BDFP actual emissions	4.4	37	0.2	0.2
Year 3 of SEP-7 plus Year 4 of BDFP actual emissions[2]	N/a	N/a	N/a	N/a
BAAQMD Thresholds	54	54	82	54
Exceed Thresholds?	N	N	N	N

Notes:

1. Actual emissions for the Biosolids Digester Facility Project off-road sources were based on data provided by the Project's construction contractors for Years 1-3 (2020-2022). Construction CAP emissions from the SEP-7 project are sourced from the attached Table 5 and were added to Years 2-3. SEP-7 emissions shown here assume compliance with FEIR Mitigation Measure M-AQ-1a.
2. BDFP actual emissions for year 4 is not available as the construction is currently ongoing as of October 2024; refer to Table B above for average daily construction emissions from SEP-7 combined with BDFP FEIR year 4 construction emissions.

Operational Emissions

Table D shows SEP-7 operational emissions with both Tier 3 and Tier 4 750 kva generators, as well as the SEP-7 operational emissions combined with the biogas Addendum 1 operational emissions.

Table D: Net Annual Operational Emissions from SEP-7 Generators Combined with Approved Project Operational Emissions

Scenario	ROG (ton/year)	NOx (ton/year)	PM_{10} (ton/year)	$PM_{2.5}$ (ton/year)
Approved Project[2]	-3.4	-0.2	2.3	2.3
Net SEP-7 Operations (Tier 3 Generators)[1]	8.4E-04	0.10	0.0081	0.0070
Approved Project plus SEP-7 (Total)	-3.4	-0.1	2.3	2.3
BAAQMD Thresholds	10	10	15	10
Exceed Thresholds?	N	N	N	N

Approved Project[2]	-3.4	-0.2	2.3	2.3
Net SEP-7 Operations (Tier 4 Generators) [1]	-0.0036	0.089	3.7E-04	3.7E-04
Approved Project plus SEP-7 (Total)	-3.4	-0.1	2.3	2.3
BAAQMD Thresholds	10	10	15	10
Exceed Thresholds?	N	N	N	N

Notes:

1. Operational emissions calculated as emissions from the new generators minus the emissions of the removed generator.
2. The approved project includes the biogas Addendum 1 to the EIR.

The operational emissions from SEP-7 are negligible on a ton per year basis; when combined with the operational emissions from the approved project, the total combined emissions would remain under thresholds.

Health Risks

In the FEIR, the MEISR is identified as the sensitive receptor location of the maximum net risk: cancer risks minus the adjusted existing operational risk of existing sources at the SEP planned for removal at the completion of the overall BDFP project. In the FEIR, the net cancer risk was 1.7 in a million, the net chronic HI was 0.0036, and the $PM_{2.5}$ concentration was 0.017 ug/m^3. This risk includes contributions from BDFP construction and approved project operations.

Table 9 and **Table E** below shows the health impacts for the SEP-7 construction and operations, including for the Tier 3 and Tier 4 generators, as well as the combined value of SEP-7 plus the approved project. Adding the maximum health impacts from SEP-7 and the MEISR impacts is conservative because this assumes that these maximums could be occurring at receptors that would also be experiencing health risks at the level of the MEISR in the FEIR. In addition, the FEIR MEISR impact value shown for BDFP already includes a small portion of risk accounted for from the Maintenance Shops 1 and 2 construction as well as operations of the BDFP (as was evaluated in the FEIR). Summing SEP-7 and the FEIR health risk impacts is additionally conservative for PM and chronic HI, which are calculated as maximum annual averages, as the summation assumes they will also overlap in time.

As shown in **Table E** below, the resulting health impacts at this receptor (the MEISR) would be below CEQA thresholds in both the Tier 3 and Tier 4 scenario.

Table E: Potential Theoretical Maximum Health Risk Impacts from SEP-7 combined with Approved Project

Source	Excess Cancer Risk (in a million)[1]	$PM_{2.5}$ Concentration (ug/m^3)[3]	Chronic Non-Cancer Hazard Index (unitless)[3]
SEP-7 MEISR Impact (Construction Emissions and Tier 3 Generators)	2.4	0.0047	0.0010
FEIR Construction MEISR Impact	1.7[2]	0.017[4]	0.0036[4]
Addendum 1 MEISR Impact[5]	-0.009	0.02	0.015
Total Combined Impact	4.2	0.04	0.020
CEQA Significance Threshold	7.0	0.2	1
Exceeds CEQA Significance Threshold?	N	N	N

SEP-7 MEISR Impact (Construction Emissions and Tier 4 Generators)	1.5	0.0047	0.0010
FEIR Construction MEISR Impact	1.7[2]	0.017[4]	0.0036[4]
Addendum 1 MEISR Impact[5]	-0.009	0.02	0.015
Total Combined Impact[6]	3.3	0.04	0.020
CEQA Significance Threshold	7.0	0.2	1
Exceeds CEQA Significance Threshold?	N	N	N

Notes:

1. The cancer risk values reflect the maximum lifetime exposure to the project (construction and operations) of the mitigated scenario described in the FEIR and the approved project operations.
2. This value is from Table 4.8-11 of the FEIR and Table 22 of the AQTR. This cancer risk value includes the cancer risk at the MEISR identified in the FEIR from the entire project implementation, including construction and operation, minus the net reduction from decommission of certain existing facilities. As part of the biogas addendum, risks from BDFP operation, and therefore entire project implementation risks (construction and operation) would likely be lower than evaluated in the FEIR.
3. The values for chronic non-cancer hazard index and $PM_{2.5}$ reflect the annual maximums from any of the project years at the MEISR with the highest level of exposure as identified in the FEIR.
4. These values are from Table 23a of the AQTR and represent the mitigated scenario.
5. Addendum 1 only updated the health risks from the operation of the biogas utilization system.
6. The total combined impact value may not equal the sum of the individual components due to rounding.

Table F below summarizes the cumulative health impacts of SEP-7 plus the approved project, and compares it to the FEIR Construction MEISR impact value. The health impacts from SEP-7 at the MEISR were added onto the construction health impacts from the BDFP EIR at the BDFP MEISR and the operational health impacts from the Biogas addendum at the Addendum MEISR.

Table F: Cumulative Health Impacts from SEP-7 combined with the Approved Project , plus Cumulative Projects and the 2020 Updated Citywide Health Risk Assessment[1]

Source	Excess Cancer Risk (in a million)	$PM_{2.5}$ Concentration (ug/m^3)	Chronic Non-Cancer Hazard Index (unitless)
FEIR Construction MEISR Impact[2]	111	9.2	0.0089
SEP7 (Tier 3 Generators) Construction and Operations plus Addendum 1	4.2	0.04	0.025
Cumulative Projects	24	0.010	0.0053
Citywide HRA	106	9.5	--
Total[3]	134	9.5	0.025
Cumulative CEQA Threshold	90	9.0	10.0
Screening Risks Above Cumulative Threshold?	Y	Y	N

FEIR MEISR Impact[2]	111	9.2	0.0089
SEP7 (Tier 4 Generators) Construction and Operations plus Addendum 1	3.3	0.04	0.025
Cumulative Projects	24	0.010	0.0053
Citywide HRA	100	9.5	--
Total[3]	127	9.5	0.025
Cumulative CEQA Threshold	90	9.0	10.0
Screening Risks Above Cumulative Threshold?	Y	Y	N

Notes:

1. Cumulative impacts include risks from nearby stationary sources, major roadways, and SFPUC-sponsored projects, consistent with the AQTR and FEIR. Nearby stationary sources and major roadway impacts are estimated in the Citywide HRA. Citywide background health risk has increased since the FEIR (and AQTR), contributing to the increase in cumulative effects.
2. FEIR impacts from construction are taken from AQTR Table 26 and Table 27.
3. These values are different because the background concentrations (from the Citywide HRA) vary by location, and the SEP-7 MEISRs are at different locations for the two generator scenarios and for the biogas addendum.

This approach is conservative, as it sums the maximum risks from all project components when the maximum health impacts would occur at different locations. Citywide background health risk has also increased since the FEIR (and AQTR). The approach taken in this analysis is additionally conservative for construction emissions and health risk. As mentioned previously, in the air quality analysis done for the biogas utilization system, actual construction hours were used to estimate emissions. Actual construction activity (horsepower hours) and thus emissions were lower than the estimates in the FEIR. Additionally, the biogas utilization system would result in less construction activity than was analyzed in the FEIR, because fewer and less substantive structures would be built in less time.

CLOSING

The analysis presented above represents a conservative estimate of the CAP, GHG, and health risk emissions from the proposed modifications to the BDFP Project to implement the proposed SEP-7 project. CAP emissions for the conservative summation of BDFP and SEP-7 construction would exceed CEQA threshold for NOx in Years 2 and 3. Year 3 was already determined to be exceeded in the BDFP FEIR with mitigation. Thus, like for the approved project, NOx offsets would be required to mitigate emissions over the threshold. The theoretical worst-case health risk analysis demonstrates that the modifications would not result in exceedances of the CEQA project-level health risk thresholds. The cumulative risk assessment includes the use of the Citywide HRA updated in 2020 for the cumulative health risk assessment; increases in citywide background health risk since the FEIR leads to increases in cumulative effects.

TABLES

Table 1
Construction Phasing Schedule
SFPUC SEP-7
San Francisco, CA

Phase[1]	Start Date	End Date	Number of Work Days	Days per Week
Demolition	2/14/2025	6/19/2025	90	5
Grading	6/20/2025	11/24/2025	112	5
Deep Foundations	11/3/2025	3/2/2026	86	5
Erection	12/1/2025	11/20/2026	255	5
Architectural Finishes	9/1/2026	6/3/2027	198	5
Site Work	12/22/2026	7/2/2027	139	5

Notes:
1. Construction schedule was provided by the Project Applicant.

Table 2
Construction Equipment
SFPUC SEP-7
San Francisco, CA

Phase	Equipment[1]	CalEEMod® Equipment[2]	Number[1]	Horsepower[2]	Daily Usage[1] (hours/day)	Utilization[1]	Engine Tier[3]	Control[3]
Demolition	Air Compressors	Air Compressors	2	37	8	33%	Tier 2	DPF
	Concrete/Industrial Saws	Concrete/Industrial Saws	3	33	4	50%	Tier 2	DPF
	Cranes	Cranes	1	367	4	67%	Tier 4 Final	--
	Crawler Tractors	Crawler Tractors	2	87	8	67%	Tier 2	DPF
	Crushing/Proc. Equipment	Crushing/Proc. Equipment	2	12	6	50%	Tier 2	DPF
	Dumpers/Tenders	Dumpers/Tenders	2	16	4	67%	Tier 2	DPF
	Excavators	Excavators	2	36	4	67%	Tier 2	DPF
	Forklifts	Forklifts	1	82	4	67%	Tier 2	DPF
	Generator Sets	Generator Sets	1	14	8	100%	Tier 2	DPF
Grading	Crawler Tractors	Crawler Tractors	2	87	4	50%	Tier 2	DPF
	Dumpers/Tenders	Dumpers/Tenders	2	16	4	100%	Tier 2	DPF
	Excavators	Excavators	2	36	4	100%	Tier 2	DPF
	Forklifts	Forklifts	1	82	2	33%	Tier 2	DPF
	Generator Sets	Generator Sets	1	14	8	100%	Tier 2	DPF
	Paving Equipment	Paving Equipment	1	89	4	50%	Tier 2	DPF
	Plate Compactors	Plate Compactors	1	8	4	25%	Tier 2	DPF
	Rollers	Rollers	1	36	2	13%	Tier 2	DPF
	Pumps	Pumps	1	11	4	25%	Tier 2	DPF
Deep Foundations	Bore/Drill Rigs	Bore/Drill Rigs	2	83	6	100%	Tier 2	DPF
	Cement and Mortar Mixers	Cement and Mortar Mixers	1	10	4	12%	Tier 2	DPF
	Crawler Tractors	Crawler Tractors	1	87	2	47%	Tier 2	DPF
	Dumpers/Tenders	Dumpers/Tenders	1	16	2	47%	Tier 2	DPF
	Excavators	Excavators	1	36	2	47%	Tier 2	DPF
	Generator Sets	Generator Sets	1	14	8	100%	Tier 2	DPF
	Cranes	Cranes	2	367	8	35%	Tier 4 Final	--
Erection	Air Compressors	Air Compressors	1	37	4	59%	Tier 2	DPF
	Cranes	Cranes	2	367	8	24%	Tier 4 Final	--
	Forklifts	Forklifts	2	82	4	24%	Tier 2	DPF
	Dumpers/Tenders	Dumpers/Tenders	1	16	2	12%	Tier 2	DPF
	Generator Sets	Generator Sets	2	14	8	100%	Tier 2	DPF
Architectural Finishes	Air Compressors	Air Compressors	1	37	4	66%	Tier 2	DPF
	Cranes	Cranes	1	367	8	30%	Tier 4 Final	--
	Cement and Mortar Mixers	Cement and Mortar Mixers	1	10	8	45%	Tier 2	DPF
	Concrete/Industrial Saws	Concrete/Industrial Saws	2	33	4	66%	Tier 2	DPF
	Generator Sets	Generator Sets	2	14	8	100%	Tier 2	DPF
Site Work	Cement and Mortar Mixers	Cement and Mortar Mixers	1	10	4	7%	Tier 2	DPF
	Concrete/Industrial Saws	Concrete/Industrial Saws	1	33	4	4%	Tier 2	DPF
	Crawler Tractors	Crawler Tractors	1	87	2	7%	Tier 2	DPF
	Dumpers/Tenders	Dumpers/Tenders	1	16	2	22%	Tier 2	DPF
	Excavators	Excavators	1	36	4	22%	Tier 2	DPF
	Forklifts	Forklifts	1	82	2	22%	Tier 2	DPF
	Paving Equipment	Paving Equipment	1	89	4	22%	Tier 2	DPF
	Plate Compactors	Plate Compactors	1	8	4	7%	Tier 2	DPF
	Pumps	Pumps	1	11	4	7%	Tier 2	DPF
	Rollers	Rollers	1	36	2	14%	Tier 2	DPF
	Generator Sets	Generator Sets	3	14	8	100%	Tier 2	DPF

Notes:

1. Equipment list was provided by the Project Applicant. Utilization was calculated based on work days of equipment use divided by phase length.
2. CalEEMod® equipment type and horsepower are assigned using defaults from CalEEMod® User's Guide Appendix G, Table 12.
3. Engine tier assumes compliance with the control measures outlined in the BDFP (Biosolids Digesters Facilities Project) Environmental Impact Report (EIR). Equipment with horsepower under 140 use Tier 2 engines with a diesel particulate filter (DPF), while equipment with 140 hp or more employ Tier 4 Final engines. These assumptions also include the use of renewable diesel in off-road equipment based on the Environmental Impact Report (EIR) assumptions and on-road haul trucks.

Abbreviations:

BDFP - Biosolids Digesters Facilities Project
CalEEMod® - California Emissions Estimator Model®
DPF - Diesel Particulate Filter
EIR - Environmental Impact Report

References:

California Air Pollution Control Officers Association (CAPCOA). California Emissions Estimator Model (CalEEMod®), Version 2022.1. Available online at http://www.caleemod.com/

Table 3
Construction Trips
SFPUC SEP-7
San Francisco, CA

Phase	Year	Construction Days (days/year)	Worker Trip Rates[1] (one-way trips/day)	Hauling Trip Number[1] (trips/phase)	Trip Lengths[1] (miles/one way trip)	
					Worker	Hauling
Demolition	2025	90	40	1,260	11.13	20
Grading	2025	112	40	3,584	11.13	20
Deep Foundations	2025	43	80	387	11.13	20
	2026	43		387	11.13	20
Erection	2025	23	120	207	11.13	20
	2026	232		2,088	11.13	20
Architectural Finishes	2026	88	120	880	11.13	20
	2027	110		1,100	11.13	20
Site Work	2026	8	60	56	11.13	20
	2027	131		917	11.13	20

EMFAC Data

Trip Type	EMFAC Settings	Fleet Mix	Fuel Type
Worker	San Francisco County Calendar Years 2025-2027 Annual Season Aggregated Model Year EMFAC2021	50% LDA, 25% LDT1, 25% LDT2	Gasoline
Hauling		100% HHDT	Diesel

Notes:

1. Worker and hauling trip rates are provided by the Project Applicant. Trip lengths are based on CalEEMod® Appendix G defaults for San Francisco County.

Abbreviations:

ARB - [California] Air Resources Board

CalEEMod® - California Emissions Estimator Model®

EMFAC - EMission FACtor Model

LDA - light-duty automobiles

LDT - light-duty trucks

HHDT - heavy-heavy duty trucks

MHDT - medium-heavy duty trucks

References:

California Air Pollution Control Officers Association (CAPCOA). California Emissions Estimator Model (CalEEMod®), Version 2022.1. Available online at http://www.caleemod.com/

California Air Resources Board (ARB) 2021. EMFAC2021. Available at: https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/msei-modeling-tools

Table 4
Estimated Emissions from Construction Architectural Coating Off-Gassing
SFPUC SEP-7
San Francisco, CA

Inputs[1,2]

Parameter		Input	Units
Residential Surface Area to Floor Area Ratio		2.7	--
Non-Residential Surface Area to Floor Area Ratio		2.0	
Painted Area in Parking Structures		6%	--
Application Rate		100%	--
Reapplication Rate		10%	--
Fraction of Surface Area (Non-Parking)	Interior Surfaces	75%	--
	Exterior Shell	25%	--
Fraction of Surface Area (Parking)	Interior Surfaces	90%	--
	Exterior Shell	10%	--
Total surface for painting by acreage (in square feet) for parking lot		5%	--
Indoor Paint VOC Content		100	g/L
Exterior Paint VOC Content		150	g/L
Parking VOC Content		100	g/L

Emissions

Phase	Land Use	Square Footage[2] (square feet)	Building Surface Area Painted[2] (square feet)	Interior Area Painted[3] (square feet)	Exterior Area Painted[3] (square feet)	Architectural Coating VOC emissions (lb)
Construction	Mechanical Maintenance Building (SEP 603)	8,700	17,400	13,050	4,350	91
	Operations, Engineering, and Maintenance Building (SEP 914)	34,600	69,200	51,900	17,300	361
	Utility Shed	600	1,200	900	300	6
					Total VOC Emissions (lbs)	**458**

Notes:

[1] Inputs and assumptions are consistent with CalEEMod 2022.1 for San Francisco. Indoor and outdoor paint VOC content parameters were obtained from CalEEMod Appendix G Table G-17 Architectural Coating Emissions Factors by Air District.

[2] Building type square footage is based on information provided by the Project Sponsor. Non-residential square footage is assumed to be 2.0 times the square footage, consistent with CalEEMod Appendix C.

[3] For commercial land use types: calculated based on CalEEMod assumption that 1 gallon of paint covers 180 square feet and that building area is assumed to be 75% indoors and 25% outdoors. For parking land use types: calculated based on CalEEMod assumption that 1 gallon of paint covers 180 square feet and that building area is assumed to be 90% indoors and 10% outdoors.

Abbreviations:

CalEEMod - California Emissions Estimator Model
EF - emission factor
g - grams
L - liter
lb - pound
VOC - volatile organic compound

References:

California Emissions Estimator Model (CalEEMod). 2022.1. Available online at: http://www.caleemod.com

Table 5
Construction Emissions of CAPs and GHGs
SFPUC SEP-7
San Francisco, CA

Summary of Construction Emissions by Source

Construction Subphase	Source	Year	CAP Emissions (lb/year)[1]				GHG Emissions (MT/yr)
			ROG	NO_x	PM_{10} (Exhaust)	$PM_{2.5}$ (Exhaust)	CO_2e
Demolition	On-Site Exhaust	2025	5.6	746	5.1	4.8	59
	Mobile Exhaust		12	235	1.7	1.6	66
Grading	On-Site Exhaust	2025	2.0	448	2.7	2.5	30
	Mobile Exhaust		18	657	4.5	4.3	167
Deep Foundations	On-Site Exhaust	2025	3.3	156	1.3	1.2	28
	Mobile Exhaust		9.5	77	0.63	0.60	29
	On-Site Exhaust	2026	3.2	150	1.2	1.1	28
	Mobile Exhaust		9.1	73	0.61	0.58	28
Erection	On-Site Exhaust	2025	1.1	56	0.50	0.47	8.0
	Mobile Exhaust		7.4	43	0.38	0.36	19
	On-Site Exhaust	2026	11	554	4.9	4.6	81
	Mobile Exhaust		72	409	3.7	3.5	185
Architectural Finishes	On-Site Exhaust	2026	3.5	297	1.9	1.8	30
	Mobile Exhaust		27	170	1.5	1.4	74
	Architectural Coating		204	0	0	0	0
	On-Site Exhaust	2027	4.4	366	2.2	2.1	38
	Mobile Exhaust		33	201	1.8	1.7	90
	Architectural Coating		254	0	0	0	0
Site Work	On-Site Exhaust	2026	0.10	23	0.13	0.12	1.4
	Mobile Exhaust		1.3	10	0.088	0.083	4.0
	On-Site Exhaust	2027	1.7	374	2.1	2.0	23
	Mobile Exhaust		20	162	1.4	1.3	64

Summary of Construction Emissions by Source

Year	Daily Average CAP Emissions (lb/day)[2]				GHG Emissions (MT/yr)
	ROG	NO_x	PM_{10} (Exhaust)	$PM_{2.5}$ (Exhaust)	CO_2e
2025	0.3	11	0.07	0.07	405
2026	1.3	6.5	0.05	0.05	431
2027	2.4	8.6	0.06	0.06	216
BAAQMD Thresholds	54	54	82	54	--
Exceed Thresholds?	**No**	**No**	**No**	**No**	--

Notes:

1. The emissions above include emissions from offroad equipment, emissions from worker, vendor, and hauling trucks, and off-gassing emissions from paving and architectural coating. BAAQMD construction thresholds for PM_{10} and $PM_{2.5}$ evaluate only exhaust emissions.
Emissions shown here assume compliance with EIR Mitigation Measure M-AQ-1a, which is the scenario using Tier 4 Final equipment for all equipment greater than or equal to 140 horsepower. Equipment with horsepower less than 140 horsepower were assumed to be Tier 2 equipment with a Diesel Particulate Filter (DPF). Emissions also include renewable diesel for all diesel offroad equipment and on-road haul trucks.

2. Daily average emissions are computed by dividing by the number of workdays per year.

Abbreviations:

BAAQMD - Bay Area Air Quality Management District
CalEEMod - California Emissions Estimator Model
CAP - criteria air pollutant
CO_2e - carbon dioxide equivalents
EMFAC2021 - California Air Resources Board EMission FACtor model
GHG - greenhouse gas
lb - pound
MT - metric ton
NOx - nitrogen dioxide
$PM_{2.5}$ - particulate matter < 2.5 µm
PM_{10} - particulate matter < 10 µm
ROG - reactive organic gas
yr - year

References:

BAAQMD. 2023. California Environmental Quality Act Air Quality Guidelines. Available at: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines

California Emissions Estimator Model (CalEEMod). 2022.1. Available online at: http://www.caleemod.com

Table 6
Emergency Generator Criteria Air Pollutant Emissions
SFPUC SEP-7
San Francisco, CA

Generator	Generator Size			Hours[1] (hrs/year)	Engine Tier	Annual Emissions[4] (ton/yr)			
	kva	kW	hp			ROG	NOx	PM_{10}	$PM_{2.5}$
Removed	500	500	671	50	--	-0.0091	-0.16	-0.0018	-0.0018
New Tier 3	750	750	1006	50	Tier 3	0.0050	0.13	0.0050	0.0044
New Tier 3	750	750	1006	50	Tier 3	0.0050	0.13	0.0050	0.0044
New Tier 4	750	750	1006	50	Tier 4 Final	0.0028	0.12	0.0011	0.0011
New Tier 4	750	750	1006	50	Tier 4 Final	0.0028	0.12	0.0011	0.0011

Net emissions from new Tier 3 Generators	8.4E-04	0.10	0.0081	0.0070
Net emissions from new Tier 4 Generators	-0.0036	0.089	3.7E-04	3.7E-04

Notes:

[1] Emissions assume 50 hours of emergency use for each generator consistent with the San Francisco Environmental Planning's Air Quality and Greenhouse Gas guidance.

[2] Emission factors for the existing (to be removed) generator are based on generator spec sheets provided by the project sponsor. Emission factors given in NOx + NMHC are assumed to be 95% NOx and 5% VOC.

[3] Emission factors for the new generators are based on CalEEMod 2022 Tier 3 and Tier 4 Final default emission factors, per information from the Project Sponsor.

References:

BAAQMD. 2004. CARB Emission Factors for CI Diesel Engines - Percent HC in Relation to NMHC + NOx. Available at: https://www.baaqmd.gov/~/media/files/engineering/policy_and_procedures/engines/emissionfactorsfordieselengines.pdf

Table 7a
Combined BDFP EIR and SEP-7 Construction Emissions
SFPUC SEP-7
San Francisco, CA

Year	Source	Daily Average CAP Emissions (lb/day)[1,2]			
		ROG	NO_x	PM_{10} (Exhaust)	$PM_{2.5}$ (Exhaust)
Year 2	EIR	10	45	0.6	0.6
	SEP-7	0.3	11	0.07	0.07
	Total	10	56	0.7	0.7
Year 3	EIR	10	55	0.6	0.6
	SEP-7	1.3	6.5	0.05	0.05
	Total	11	62	0.7	0.7
Year 4	EIR	13	40	0.5	0.5
	SEP-7	2.4	8.6	0.06	0.06
	Total	15	48	0.6	0.6
BAAQMD Thresholds		54	54	82	54
Exceed Thresholds?		No	Yes	No	No

Notes:

1. Construction CAP emissions from the EIR are sourced from Table 4c of the AQTR and are consistent with Table 4.8-9 of the FEIR.

2. SEP-7 Emissions shown here assume compliance with EIR Mitigation Measure M-AQ-1a, which is the scenario using Tier 4 Final equipment for all equipment greater than or equal to 140 horsepower. Equipment with horsepower less than 140 horsepower were assumed to be Tier 2 equipment with a Diesel Particulate Filter (DPF). Emissions also include renewable diesel for all diesel offroad equipment and on-road haul trucks.

Abbreviations:

BAAQMD - Bay Area Air Quality Management District
CalEEMod - California Emissions Estimator Model
CAP - criteria air pollutant
CO_2e - carbon dioxide equivalents
EIR - Environmental Impact Report
EMFAC2021 - California Air Resources Board EMission FACtor model
GHG - greenhouse gas
lb - pound
MT - metric ton
NOx - nitrogen dioxide
$PM_{2.5}$ - particulate matter < 2.5 µm
PM_{10} - particulate matter < 10 µm
ROG - reactive organic gas
yr - year

References:

BAAQMD. 2023. California Environmental Quality Act Air Quality Guidelines. Available at: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines

California Emissions Estimator Model (CalEEMod). 2022.1. Available online at: http://www.caleemod.com

Table 7b
Combined BDFP Actual Construction Emissions and SEP-7 Construction Emissions
SFPUC SEP-7
San Francisco, CA

Year	Source	Daily Average CAP Emissions (lb/day)[1,2]			
		ROG	NO_x	PM_{10} (Exhaust)	$PM_{2.5}$ (Exhaust)
Year 2	Actual	4.2	37	0.3	0.3
	SEP-7	0.3	11	0.07	0.07
	Total	4.5	47	0.4	0.4
Year 3	Actual	3.1	30	0.1	0.1
	SEP-7	1.3	6.5	0.05	0.05
	Total	4.4	37	0.2	0.2
BAAQMD Thresholds		54	54	82	54
Exceed Thresholds?		No	Yes	No	No

Notes:

1. Actual emissions for the Biosolids Digester Facility Project off-road sources were based on data provided by the Project's construction contractors for 2020-2022 (Years 1-3). These emissions reflect the use of renewable diesel in off-road equipment based on the Environmental Impact Report (EIR) assumptions. These actual construction emissions were previously provided to San Francisco Environmental Planning in MPM-9.
   Actual emissions for the on-road sources reflect the control measure that 80% of haul trucks are engine model year 2012 or newer with no renewable diesel. This varies from the control measure in the EIR that equipment be 2010 or newer with renewable diesel. This alternative control measure was approved by San Francisco Environmental Planning (Johnston, 9-30-20).
2. SEP-7 Emissions shown here assume compliance with EIR Mitigation Measure M-AQ-1a, which is the scenario using Tier 4 Final equipment for all equipment greater than or equal to 140 horsepower. Equipment with horsepower less than 140 horsepower were assumed to be Tier 2 equipment with a Diesel Particulate Filter (DPF). Emissions also include renewable diesel for all diesel offroad equipment and on-road haul trucks.

Abbreviations:

BAAQMD - Bay Area Air Quality Management District
CalEEMod - California Emissions Estimator Model
CAP - criteria air pollutant
CO_2e - carbon dioxide equivalents
EIR - Environmental Impact Report
EMFAC2021 - California Air Resources Board EMission FACtor model
GHG - greenhouse gas
lb - pound
MT - metric ton
NOx - nitrogen dioxide
$PM_{2.5}$ - particulate matter < 2.5 µm
PM_{10} - particulate matter < 10 µm
ROG - reactive organic gas
yr - year

References:

BAAQMD. 2023. California Environmental Quality Act Air Quality Guidelines. Available at: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines

California Emissions Estimator Model (CalEEMod). 2022.1. Available online at: http://www.caleemod.com

Table 8
Exposure Parameters
SFPUC SEP-7
San Francisco, CA

Receptor Type	Project Phase	Year	Receptor Age Group	Exposure Parameters						
				Daily Breathing Rate (DBR)[1]	Annual Exposure Duration (ED)	Fraction of Time at Home (FAH)[2]	Exposure Frequency (EF)[3]	Age Sensitivity Factor (ASF)[4]	Averaging Time (AT)	ASF-Weighted Intake Factor, Inhalation (IF_{inh})
				[L/kg-day]	[years]	[unitless]	[days/year]		[days]	[m^3/kg-day]
Resident[5]	Construction	2025	3rd Trimester	361	0.29	1.0	350	10	25,500	0.014
		2025	Age 0-<2 Years	1090	0.71	1.0	350	10	25,500	0.107
		2026	Age 0-<2 Years	1090	1.0	1.0	350	10	25,500	0.150
		2027	Age 0-<2 Years	1090	0.56	1.0	350	10	25,500	0.083
		2027	Age 2-<16 Years	572	0.44	1.0	350	3	25,500	0.010
	Operation	2027	Age 2-<16 Years	572	0.33	1.0	350	3	25,500	0.00768
		2028-2041	Age 2-<16 Years	572	13.39	1.0	350	3	25,500	0.3153
		2041-2055	Age 16-<30 Years	261	14	0.7	350	1	25,500	0.037

Notes:

1. Daily breathing rates for residential receptors and non-residential receptors are consistent with the recommended breathing rates in the BAAQMD's 2022 CEQA Guidelines, Appendix E.

2. Fraction of time spent at home is consistent with the recommended value in the BAAQMD's 2022 CEQA Guidelines, Appendix E for residential receptors.

3. Exposure frequency was determined as follows:

   Resident: reflects default residential exposure frequency from the BAAQMD's 2022 CEQA Guidelines.

4. Age sensitivity factors (ASFs) account for an "anticipated special sensitivity to carcinogens" of infants and children as recommended in the OEHHA Technical Support Document (OEHHA 2015) and current OEHHA guidance (OEHHA 2015). This approach is consistent with the cancer risk adjustment factor calculations recommended by BAAQMD.

5. A resident receptor is assumed to be exposed at the beginning of the infancy (third trimester)

Calculation:

IF_{inh} = DBR * FAH * EF * ED * CF / AT

CF = 0.001 (m^3/L)

MAF = HR / HS * DR / DS *DF

Abbreviations:

AT - averaging time
ASF - Age Sensitivity Factor
BAAQMD - Bay Area Air Quality Management District
DBR - daily breathing rate
ED - exposure duration
EF - exposure frequency
FAH - fraction of time at home
HS - number of hours of source operation per day
DS - number of days of source operation per week
IF_{inh} - intake factor
kg - kilogram
L - liter
m^3 - cubic meter
OEHHA - Office of Environmental Health Hazard Assessment
MAF - model adjustment factor
HR - number of hours per day for which long-term concentration is calculated
DR - number of days per week for which annual average concentration is calculated

References:

OEHHA. 2015. Air Toxics Hot Spots Program Risk Assessment Guidelines. Guidance Manual for Preparation of Health Risk Assessments. Available at https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf

Bay Area Air Quality Management District (BAAQMD). 2023. California Environmental Quality Act (CEQA) Air Quality Guidelines. Available at: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines

California Air Pollution Control Officers Association (CAPCOA). California Emissions Estimator Model (CalEEMod), Version 2022.1. Available online at http://www.caleemod.com/

Table 9a
Tier 3 Scenario: Project and Cumulative Health Impacts at MEISR and MEI
SFPUC SEP-7
San Francisco, CA

Phase	Source and Location[2]	Excess Cancer Risk	$PM_{2.5}$ Concentration	Chronic HI
		in a million	$\mu g/m^3$	--
SEP-7 Construction and Operation	Off-road Construction Equipment	1.4	0.0046	0.0010
	On-road Construction Vehicles	0.0076	6.4E-05	6.5E-06
	New Generators	1.4	--	--
	Removed Generator	-0.43	--	--
BDFP Construction	Off-road Construction Equipment	1.6	0.012	0.0027
	On-road Construction Vehicles	0.14	0.0050	8.3E-04
Biogas Addendum 1 Net Operations	Net Operations	-0.009	0.02	0.015
SEP7 (Tier 3 Generators) Screening Total From Construction and Operations plus Addendum 1		4.2	0.04	0.020
Cumulative Projects[3]		24	0.010	0.0053
Citywide HRA[4]		106	9.5	--
Total		134	9.5	0.02

Notes:

1. Results are presented for construction assuming compliance with EIR Mitigation Measure M-AQ-1a.
2. This table presents the cancer risk, chronic health impacts, and PM2.5 concentration from the SEP-7 project component at the MEISR for SEP7, which are then added onto the construction health impacts from the BDFP EIR at the BDFP MEISR and the operational health impacts from the Biogas addendum. This approach is conservative, as the maximum health impacts occur at different locations.
3. The health impacts of additional SFPUC projects at the Southeast Plant (SEP) and in the surrounding area that will be under construction during the construction and operation of the BDFP were estimated for the FEIR, and retained for this analysis.
4. The background cancer risk and PM2.5 concentration from existing nearby stationary sources was obtained from the Citywide HRA at the SEP-7 MEISR location. The Citywide HRA does not estimate cumulative chronic HI; therefore, this was not included in the cumulative chronic HI evaluation.

Abbreviations:

EIR - Environmental Impact Report
DPF - diesel particulate filter
HI - hazard index
m - meter
m^3 - cubic meter
MEI - maximally exposed individual
MEISR - maximally exposed individual sensitive receptor
PM - particulate matter
SFPUC - San Francisco Public Utilities Commission
µg - microgram

Table 9b
Tier 4 Scenario: Project and Cumulative Health Impacts at MEISR and MEI
SFPUC SEP-7
San Francisco, CA

Phase	Source and Location[2]	Excess Cancer Risk	$PM_{2.5}$ Concentration	Chronic HI
		in a million	$\mu g/m^3$	--
SEP-7 Construction and Operation	Off-road Construction Equipment	1.6	0.0046	0.0010
	On-road Construction Vehicles	0.0084	6.4E-05	6.5E-06
	New Generators	0.24	--	--
	Removed Generator	-0.28	--	--
BDFP Construction	Off-road Construction Equipment	1.6	0.012	0.0027
	On-road Construction Vehicles	0.14	0.0050	8.3E-04
Biogas Addendum 1 Net Operations	Net Operations	-0.009	0.02	0.015
SEP7 (Tier 4 Generators) Screening Total From Construction and Operations plus Addendum 1		3.3	0.04	0.020
Cumulative Projects[3]		24	0.010	0.0053
Citywide HRA[4]		100	9.5	--
Total		127	9.5	0.02

Notes:

1. Results are presented for construction assuming compliance with EIR Mitigation Measure M-AQ-1a.
2. This table presents the cancer risk, chronic health impacts, and PM2.5 concentration from the SEP-7 project component at the MEISR for SEP7, which are then added onto the construction health impacts from the BDFP EIR at the BDFP MEISR and the operational health impacts from the Biogas addendum. This approach is conservative, as the maximum health impacts occur at different locations.
3. The health impacts of additional SFPUC projects at the Southeast Plant (SEP) and in the surrounding area that will be under construction during the construction and operation of the BDFP were estimated for the FEIR, and retained for this analysis.
4. The background cancer risk and PM2.5 concentration from existing nearby stationary sources was obtained from the Citywide HRA at the SEP-7 MEISR location. The Citywide HRA does not estimate cumulative chronic HI; therefore, this was not included in the cumulative chronic HI evaluation.

Abbreviations:

EIR - Environmental Impact Report
DPF - diesel particulate filter
HI - hazard index
m - meter
m^3 - cubic meter
MEI - maximally exposed individual
MEISR - maximally exposed individual sensitive receptor
PM - particulate matter
SFPUC - San Francisco Public Utilities Commission
µg - microgram

FIGURES

RAMBOLL

Date: 8/9/2024

Dispersion Model Setup
SFPUC SEP-7
San Francisco, CA

FIGURE
1

03-36893A

RAMBOLL

Locations of MEIs and MEISRs
SFPUC SEP-7
San Francisco, CA

FIGURE
2

Date: 6/25/2024

03-36893A

APPENDIX C
HISTORIC RESOURCES EVALUATION MEMORANDUM

San Francisco Planning

49 South Van Ness Avenue, Suite 1400
San Francisco, CA 94103
628.652.7600
www.sfplanning.org

Memorandum to File

Date:	December 3, 2024
To:	Kelly Yong, Environmental Project Manager (415)551-4532 Kyong@sfwater.org
From:	Justin Greving, Senior Preservation Planner (628)652-7553 Justin.greving@sfgov.org
Reviewed by:	Allison Vanderslice, CEQA Cultural Resources Team Manager (628) 652-7505 Allison.Vanderslice@sfgov.org
Re:	Southeast Water Pollution Control Plant, 750 Phelps Street
Case No.	2015-000644ENV

Introduction

The proposed project takes place at the Southeast Water Pollution Control Plant (Southeast Treatment Plant), at 750 Phelps Street, and would be a modification to the previously approved Biosolids Digester Facilities project (Case number 2015-000644ENV), to replace the existing solids treatment facilities with more reliable, efficient, and modern technologies and facilities.

CEQA Historic Resources Evaluation

The Southeast Treatment Plant was previously evaluated and determined to be a historic resource eligible for listing in the National and California registers. The Southeast Treatment Plant Streamline Moderne Industrial Historic District is eligible under Criterion A/1 for its significant contributions to the completion of the 1935 Sewer System Master Plan and C/3 as an important collection of industrial buildings all designed in the Streamline Moderne architectural style. The period of significance for the district is the date of completion of the buildings within the district, 1952. There are a total of 22 contributing buildings, 5 non-contributing buildings, and one none-contributing structure (security fence), within the district boundary which is drawn to capture the area within the plant that contains the highest concentration of buildings constructed during the period of significance.

Proposed Project

The previously approved project to upgrade the Southeast Treatment Plant, known as the Biosolids Digester Facilities project, would demolish Building 870, the "Service Building," to allow for the construction of a new maintenance shop in its location. The previous project underwent CEQA review and the EIR was certified by the San Francisco Planning Commission on March 8, 2018 (Case number 2015-000644ENV). The proposed project has been revised to retain Building 870 and instead demolish a different contributing building within the Southeast Treatment Plant (Building 850, the "Operator's Building"), along with the adjacent surface parking lot, for the construction of two new buildings, a Mechanical Maintenance building (SEP 603) and an Operations, Engineering and Maintenance building (SEP 914).

Project Impacts

Planning department preservation staff reviewed the proposed project modification to determine if there were any new impacts to historic architectural resources that had not been previously disclosed. The environmental impact report (EIR) for the previously approved project did not find project-level significant impacts to historic resources due to the fact that the previously approved project would only demolish one contributing building, Building 870. The analysis in the EIR stated that while Building 870 was a contributor to the district, it was not an anchor building within the historic district and was more utilitarian in comparison with some of the other grander and architecturally detailed buildings within the historic district. Furthermore, the analysis explained that north of Jerrold Avenue, the historic district had less cohesion and contains a higher number of non-contributing buildings within the historic district boundaries. The analysis concluded that the new construction would simply be one new non-historic addition in the mix of buildings within the northern part of the historic district that already has a mixture of contributing and non-contributing buildings.

The previous EIR did however find there was a cumulative impact on the Southeast Treatment Plant Streamline Moderne Industrial Historic District caused by cumulative projects including the Demolition of the Existing SEP Digester and Southside Renovation Project that would demolish all existing digesters and their central control buildings. Implementation of *Mitigation Measure M-CR-1 (Documentation of Historic Resources and Interpretive Display)* was determined to reduce the severity of the cumulative impact but would not reduce it to a less-than-significant level. The previously approved project's contribution to this cumulative impact was cumulatively considerable (i.e. significant) and the cumulative impact on the historic district would be significant and unavoidable with mitigation.

Planning department staff have reviewed the revised project and determined that it will not have any additional impacts that were not disclosed in the previous environmental review. Building 850 is a more architecturally distinguished building than Building 870 as it was the former administration building and has a more prominent street presence along Phelps Street. While it is true that Building 850 is architecturally more distinguished than Building 870, its demolition instead of Building 870, would not result in enough of a change in the historic district composition to result in a significant and unavoidable impact at the project-level. After demolition of Building 850 the historic district will still retain 21 contributing buildings that as a whole will still communicate their significance in completion of the 1935 Sewer System Master Plan and C/3 as an important collection of industrial buildings all designed in the Streamline Moderne architectural style.

Cumulative impacts to historic resources would still be the same as those identified in the EIR, therefore it is recommended that a Mitigation Measure be implemented that documents and interprets the history of the building that will be demolished.

Mitigation Measure M-CR-1: Documentation of Historic Resources and Interpretive Display. Prior to demolition of any individual historic resource or contributor to a historic district, the SFPUC shall submit to the planning department for review photographic and narrative documentation of the individual historic resource or district contributor. ~~retain~~ The documentation shall be funded by the SFPUC and undertaken by a qualified professional who meets the standards for history, architectural history, or architecture (as deemed appropriate by the department's preservation staff), as set forth by the Secretary of the Interior's Professional Qualification~~s~~ Standards ~~for Architectural History to prepare written and photographic documentation of the Central Shops~~ (36 Code of Federal Regulations, part 61). The documentation scope ~~effort~~ shall be reviewed and approved by the department prior to any work on the documentation. A documentation package shall consist of the required forms of documentation and shall include a summary of the historic resource and an overview of the documentation provided. Documentation of the building should include the following:

- *HABS/HALS-Like Measured Drawings* – A set of Historic American Buildings/Historic American Landscapes Survey-like (HABS/HALS-like) measured drawings that depict the existing size, scale, and dimension of the subject property. The department's preservation staff will accept the original architectural drawings or an as-built set of architectural drawings (plan, section, elevation, etc.). Copies of building plans gathered from the prior evaluations of the Biosolids Digester Facilities Project can be reused and reformatted for this effort. The department's preservation staff will assist the consultant in determining the appropriate level of measured drawings. A cover sheet may be required that describes the historic significance of the property. ~~based on the National Park Service (NPS) Historic American Building Survey (HABS)/Historic American Engineering Record (HAER) Historical Report Level II Guidelines, and NPS's policy for photographic documentation as outline in the National Register of Historic Places and National Historic Landmarks Survey Photo Policy Expansion.~~
- The written historical data for this documentation shall follow HABS/~~HAER~~HALS standards. Efforts shall be made to locate original construction drawings or plans ~~of the Central Shops~~. If located, these drawings shall be reproduced and included in the dataset. Historical information, as well as copies of building plans gathered from the prior evaluations of the SEP ~~and Central Shops~~, can be reused and reformatted for this effort.
- *HABS/HALS-Like Photographs* – Digital photographs of the interior and the exterior of the individual historic resource or district contributor. Large-format negatives are not required. The scope of the digital photographs shall be reviewed by the department's preservation staff for concurrence, and all digital photography shall be conducted according to current National Park Service standards. The photography shall be undertaken by a qualified professional with demonstrated experience in HABS photography. ~~Digital photography shall be used. The ink and paper combinations for printing photographs shall be in compliance with National Register-National Historic Landmark (NR-NHL) Photo Policy Expansion[22] and have a permanency rating of approximately 115 years. Digital photographs shall be taken as uncompressed, Tagged Image~~

~~File Format (TIFF) files. Each image shall be 1,600 by 1,200 pixels at 330 pixels per inch (ppi) or larger in size, color format, and printed in black and white. The file name for each electronic image shall correspond with the index of photographs and photograph label.~~ Photograph views for the dataset shall include (a) contextual views; (b) views of each side of each building and interior views, where possible; (c) oblique views of buildings; and (d) detail views of character-defining features. All views shall be referenced on a photographic key. This photographic key shall be on a map of the property and shall show the photograph number with an arrow to indicate the direction of the view. Historic photographs shall also be collected, reproduced, and included in the dataset.

The SFPUC shall reach out to the following repositories to determine if they would like copies of the documentation and to assess the documentation format (digital or hard copy) preferred: ~~transmit the datasets as hardcopies on archival paper and in electronic PDF format to the~~ History Room of the San Francisco Public Library, ~~the San Francisco Planning Department,~~ the archives of the San Francisco Public Utilities Commission, and to the Northwest Information Center of the California Historical Information Resource System. ~~The SFPUC shall scope the documentation measures with San Francisco Planning Department Preservation staff.~~ Preservation staff shall also review and approve the submitted documentation for adequacy.

In addition, the SFPUC shall provide a permanent display of interpretive materials (which may include, but are not limited to, a display of photographs, a brochure, educational website, or an exhibitive display) concerning the history and architectural features of the individual historic resource or district contributor~~Central Shops~~. Development of the interpretive materials shall be supervised by an architectural historian or historian who meets the Secretary of the Interior's Professional Qualification Standards. The interpretative materials shall be placed in a prominent, public setting. A proposal describing the general parameters of the interpretive materials shall be approved by Planning Department Preservation staff prior to construction completion. The substance, media, and other elements of such interpretive display shall be approved by Planning Department Preservation staff prior to completion of the project.

Conclusion

Planning department staff finds the change in project scope to include the demolition of Building 850 instead of Building 870 does not affect the conclusion of the previous EIR for the project that found a project level less than significant impact to the Southeast Treatment Plant Streamline Moderne Industrial Historic District, and a significant cumulative impact to the historic district. A mitigation measure that documents and interprets the demolished building would help reduce impacts but the cumulative impact would still be significant, as previously disclosed.

APPENDIX D
CONSTRUCTION EQUIPMENT AND ACTIVITY

DETAILS OF CONSTRUCTION EQUIPMENT AND ACTIVITY

The Phases/Components included below are a draft list; please revise/update as necessary

Please fill out areas highlighted in yellow

Note that cells highlighted in BLUE have formulae and will auto populate

Overall construction timeline: Match to "Const Phasing" tab			
Construction Phase	Start Date	End Date	Number of workdays in Phase
Demolition (NTP)	2/14/2025	6/19/2025	90
Grading and Utilities	6/20/2025	11/24/2025	112
Construction			
Deep Foundations	11/3/2025	3/2/2026	86
Erection – Superstructure, enclosure, framing, building systems, walls	12/1/2025	11/20/2026	255
Architectural Finishes	9/1/2026	6/3/2027	198
Site Work	12/22/2026	7/2/2027	139
Substantial Completion		9/3/2027	

Construction Vehicle Trips by Phase						
Construction Phase	Construction workers/day	Worker trips/day	One-Way Truck Trips/day (Off-haul)	Truck Trips/day (fill)	Construction Material delivery trips/day	Other Trucks one-way truck trips/day*
Demolition (NTP)	20	40	4	0	0	10
Grading and Utilities	20	40	8	1	1	22
Deep Foundations	40	80	0	0	1	8
Erection – Superstructure, enclosure, framing, building systems, walls	60	120	0	0	3	6
Architectural Finishes	60	120	0	0	4	6
Site Work	30	60	0	2	3	2

*Water trucks, tool trucks, delivery trucks, boom lift

Construction Equipment and Activity by Phase					
Phase 1:	Demolition (NTP)				
Equipment NOTE: Please click on a cell and select equipment from the drop down list	Number of Equipment used	Avg Operation (hrs/day)	Number of Work Days in the construction phase equipment is used	Equipment size (hp)	Total Run Time (hours)
Air Compressors	2	8	30	37	240
Concrete/Industrial Saws	3	4	45	33	180
Cranes	1	4	60	367	240
Crawler Tractors	2	8	60	87	480
Crushing/Proc. Equipment	2	6	45	12	270
Dumpers/Tenders	2	4	60	16	240
Excavators	2	4	60	36	240
Forklifts	1	4	60	82	240
Generator Sets	1	8	90	14	720
					0
					0
					0

DETAILS OF CONSTRUCTION EQUIPMENT AND ACTIVITY

The Phases/Components included below are a draft list; please revise/update as necessary

Please fill out areas highlighted in yellow

Note that cells highlighted in BLUE have formulae and will auto populate

Overall construction timeline: Match to "Const Phasing" tab			
Construction Phase	**Start Date**	**End Date**	**Number of workdays in Phase**
Demolition (NTP)	2/14/2025	**6/19/2025**	**90**
Grading and Utilities	6/20/2025	**11/24/2025**	**112**
Construction			
Deep Foundations	11/3/2025	**3/2/2026**	**86**
Erection – Superstructure, enclosure, framing, building systems, walls	12/1/2025	**11/20/2026**	**255**
Architectural Finishes	9/1/2026	**6/3/2027**	**198**
Site Work	12/22/2026	**7/2/2027**	**139**
Substantial Completion		**9/3/2027**	

Phase 2:	**Grading and Utilities**				
Equipment **NOTE: Please click on a cell and select equipment from the drop down list**	**Number of Equipment used**	**Avg Operation (hrs/day)**	**Number of Work Days in the construction phase equipment is used**	**Equipment size (hp)**	**Total Run Time (hours)**
Crawler Tractors	*2*	*4*	*56*	87	224
Dumpers/Tenders	*2*	*4*	*112*	16	448
Excavators	*2*	*4*	*112*	36	448
Forklifts	*1*	*2*	*37*	82	74
Generator Sets	*1*	*8*	*112*	14	896
Paving Equipment	*1*	*4*	*56*	89	224
Plate Compactors	*1*	*4*	*28*	8	112
Rollers	*1*	*2*	*15*	36	30
Pumps	*1*	*4*	*28*	11	112
					0
					0
					0

Phase 3:	**Deep Foundations**				
Equipment **NOTE: Please click on a cell and select equipment from the drop down list**	**Number of Equipment used**	**Avg Operation (hrs/day)**	**Number of Work Days in the construction phase equipment is used**	**Equipment size (hp)**	**Total Run Time (hours)**
Bore/Drill Rigs	*2*	*6*	*86*	83	516
Cement and Mortar Mixers	*1*	*4*	*10*	10	40
Crawler Tractors	*1*	*2*	*40*	87	80
Dumpers/Tenders	*1*	*2*	*40*	16	80
Excavators	*1*	*2*	*40*	36	80
Generator Sets	*1*	*8*	*86*	14	688
Cranes	*2*	*8*	*30*	367	240
					0
					0
					0
					0
					0
					0
					0

DETAILS OF CONSTRUCTION EQUIPMENT AND ACTIVITY

The Phases/Components included below are a draft list; please revise/update as necessary

Please fill out areas highlighted in yellow

Note that cells highlighted in BLUE have formulae and will auto populate

Overall construction timeline: Match to "Const Phasing" tab			
Construction Phase	**Start Date**	**End Date**	**Number of workdays in Phase**
Demolition (NTP)	2/14/2025	**6/19/2025**	**90**
Grading and Utilities	6/20/2025	**11/24/2025**	**112**
Construction			
Deep Foundations	11/3/2025	**3/2/2026**	**86**
Erection – Superstructure, enclosure, framing, building systems, walls	12/1/2025	**11/20/2026**	**255**
Architectural Finishes	9/1/2026	**6/3/2027**	**198**
Site Work	12/22/2026	**7/2/2027**	**139**
Substantial Completion		**9/3/2027**	

Phase 4:	**Erection – Superstructure, enclosure, framing, building systems, walls**				
Equipment **NOTE: Please click on a cell and select equipment from the drop down list**	**Number of Equipment used**	**Avg Operation (hrs/day)**	**Number of Work Days in the construction phase equipment is used**	**Equipment size (hp)**	**Total Run Time (hours)**
Air Compressors	*1*	*4*	*150*	37	600
Cranes	*2*	*8*	*60*	367	480
Forklifts	*2*	*4*	*60*	82	240
Dumpers/Tenders	*1*	*2*	*30*	16	60
Generator Sets	*2*	*8*	*255*	14	2040
					0
					0
					0
					0
					0
					0
					0
					0

Phase 5:	**Architectural Finishes**				
Equipment **NOTE: Please click on a cell and select equipment from the drop down list**	**Number of Equipment used**	**Avg Operation (hrs/day)**	**Number of Work Days in the construction phase equipment is used**	**Equipment size (hp)**	**Total Run Time (hours)**
Air Compressors	*1*	*4*	*130*	37	520
Cranes	*1*	*8*	*60*	367	480
Cement and Mortar Mixers	*1*	*8*	*90*	10	720
Concrete/Industrial Saws	*2*	*4*	*130*	33	520
Generator Sets	*2*	*8*	*198*	14	1584
					0
					0
					0
					0
					0
					0
					0
					0
					0

DETAILS OF CONSTRUCTION EQUIPMENT AND ACTIVITY

The Phases/Components included below are a draft list; please revise/update as necessary

Please fill out areas highlighted in yellow

Note that cells highlighted in BLUE have formulae and will auto populate

Overall construction timeline: Match to "Const Phasing" tab			
Construction Phase	**Start Date**	**End Date**	**Number of workdays in Phase**
Demolition (NTP)	2/14/2025	**6/19/2025**	**90**
Grading and Utilities	6/20/2025	**11/24/2025**	**112**
Construction			
Deep Foundations	11/3/2025	**3/2/2026**	**86**
Erection – Superstructure, enclosure, framing, building systems, walls	12/1/2025	**11/20/2026**	**255**
Architectural Finishes	9/1/2026	**6/3/2027**	**198**
Site Work	12/22/2026	**7/2/2027**	**139**
Substantial Completion		**9/3/2027**	

Phase 6:	**Site Work**				
Equipment **NOTE: Please click on a cell and select equipment from the drop down list**	**Number of Equipment used**	**Avg Operation (hrs/day)**	**Number of Work Days in the construction phase equipment is used**	**Equipment size (hp)**	**Total Run Time (hours)**
Cement and Mortar Mixers	*1*	*4*	*10*	10	40
Concrete/Industrial Saws	*1*	*4*	*5*	33	20
Crawler Tractors	*1*	*2*	*10*	87	20
Dumpers/Tenders	*1*	*2*	*30*	16	60
Excavators	*1*	*4*	*30*	36	120
Forklifts	*1*	*2*	*30*	82	60
Paving Equipment	*1*	*4*	*30*	89	120
Plate Compactors	*1*	*4*	*10*	8	40
Pumps	*1*	*4*	*10*	11	40
Rollers	*1*	*2*	*20*	36	40
Generator Sets	*3*	*8*	*139*	14	1112
					0
					0
					0

APPENDIX E
TRANSPORTATION DEMAND ESTIMATE AND SUPPORTING DOCUMENTATION

Adavant Consulting

Memorandum

To: Karen Lancelle – Environmental Science Associates

From: José I. Farrán – Adavant Consulting

Date: December 18, 2024 **Revised Final Version**

Re: BDFP, Operations, Engineering and Maintenance Buildings
Travel Demand Analysis Case No.: 2015-000644ENV

This memorandum summarizes the assumptions and methodology used to develop the travel demand for the proposed modifications to the Biosolids Digester Facilities Project (BDFP) Final Environmental Impact Report (FEIR) consisting of construction of the Operations, Engineering and Maintenance building, a Mechanical Maintenance building, and a new utility enclosure at SFPUC's Southeast Plant (i.e. the proposed modifications). The proposed new buildings would be located adjacent to, but outside of, the approved project site for the BDFP project at the Southeast Plant. The BDFP (i.e. the approved project) together with the proposed modifications represents the modified project.

The analysis presented in this document estimates the travel demand (i.e. number of person and vehicle trips) associated with the modified project during both construction and operation of such facilities. The travel demand analysis for the modified project relies on the same methodology and assumptions regarding trip generation rates, mode of travel, average vehicle occupancy factors, etc., previously utilized in the CEQA analysis of the approved project[1], as applicable. The travel demand analysis for the approved project was based on standard methodology and practices used in the evaluation of transportation impacts as part of environmental review in San Francisco, which are described in detail in the *Transportation Impact Analysis Guidelines for Environmental Review* (SF Guidelines),[2] prepared by the San Francisco Planning Department (department).

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1 San Francisco Planning Department, *Biosolids Digester Facilities Project FEIR*. Case Number 2015-000644ENV; Final EIR Certification: March 8, 2018. Referred to in this memorandum as BDFP FEIR.

2 Consistent with the BDFP FEIR, the travel demand analysis relies primarily on the San Francisco Planning Department, *Transportation Impact Analysis Guidelines,* from October 2002, referred in this memorandum as SF Guidelines. The updated San Francisco Planning Department, *Transportation Impact Analysis Guidelines*, published in October 2019 have been consulted.

DESCRIPTION OF THE MODIFIED PROJECT

As described above, the proposed modifications in combination with the approved project define the modified project.

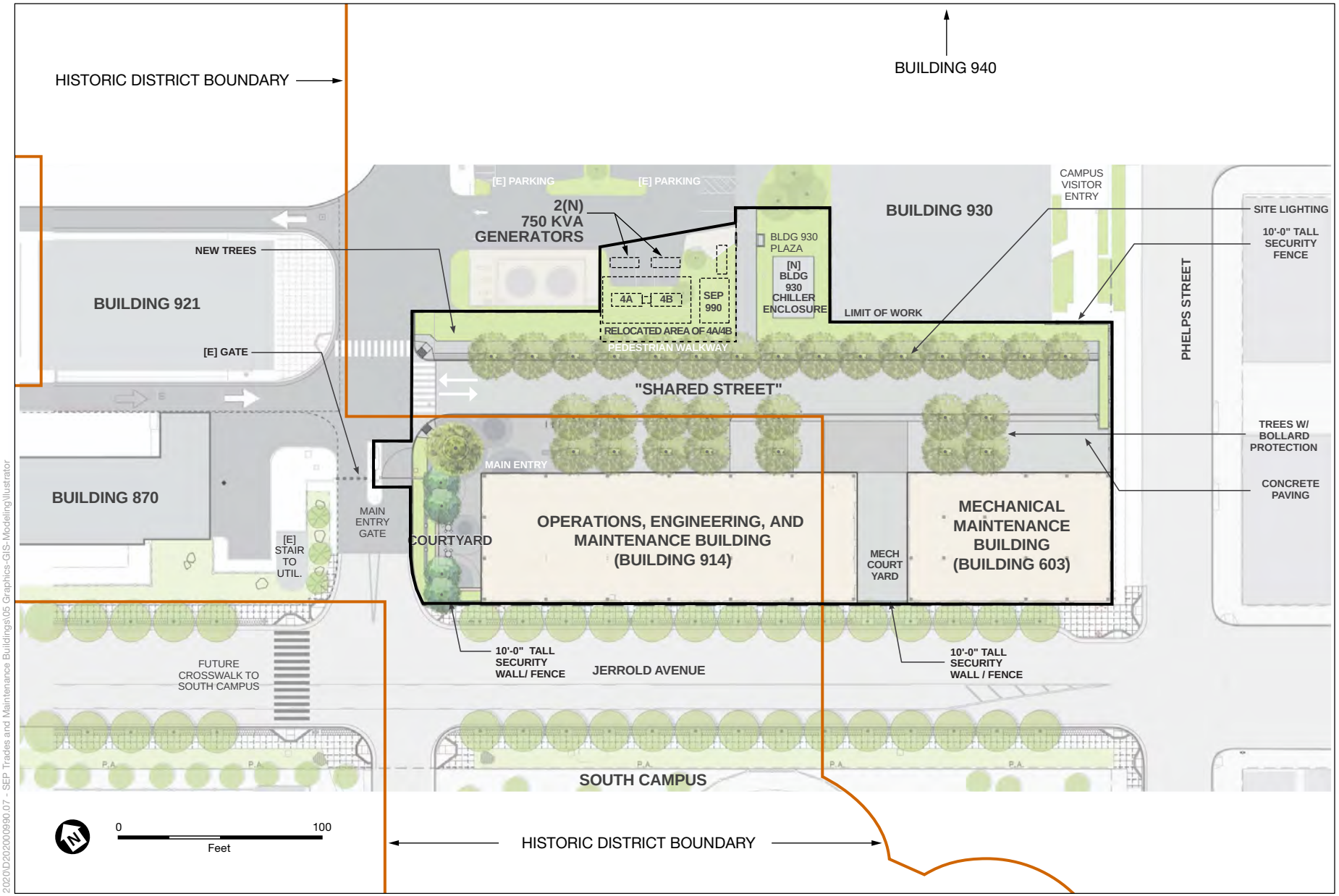
PROPOSED MODIFICATIONS

The proposed modifications to the approved project include: demolition of the existing building SEP 850; removal of the temporary pre-fabricated trailers SEP 850A and SEP 850B and the adjacent surface parking lot; demolition of the existing emergency backup generator, an existing transformer, and related electrical equipment (SEP 990); construction of the Mechanical Maintenance building (SEP 603), the Operations, Engineering, and Maintenance building (SEP 914), and a utility enclosure for a new chiller; and installation of two new boilers located inside building SEP 930 to service both buildings SEP 930 and SEP 940. Two new emergency generators and an associated upgraded transformer and electrical panel (SEP 990) would be constructed and installed for use by proposed buildings SEP 603 and SEP 914. **Figure 1** shows the landscape concept plan.

The proposed approximately 8,400-gross square foot (gsf) Mechanical Maintenance building (SEP 603) would house maintenance bays, tool storage, office space and associated maintenance equipment, while the proposed approximately 35,600-gsf Operations, Engineering, and Maintenance building (SEP 914) would house carpenter, plumbing, and paint shops; offices, conference rooms, and break room; tool and paint storage; showers, lockers, and a wellness room; and records storage. Prior to the start of construction, SFPUC would temporarily relocate the occupants and uses of the SEP 850 building and temporary pre-fabricated trailers (SEP 850A and SEP 850B) to be demolished at the Southeast Plant to 1900 Jerrold Avenue, at the San Francisco Market site. Temporary parking would be arranged for these workers near 1900 Jerrold Avenue, or previously approved staging areas such as 2000 McKinnon Avenue and 1811 Jerrold Avenue, which would not substantially alter employee travel patterns or parking conditions. The workers would return to the Southeast Plant at the end of the construction period.

CONSTRUCTION

In total, approximately 15,270 square feet of existing buildings and structures would be demolished for the proposed modifications, while Building SEP 870 would no longer be demolished as originally proposed in the approved BDFP project. After demolition and site grading, SFPUC would construct the Mechanical Maintenance building (building SEP 603) and the Operations, Engineering, and Maintenance building (building SEP 914). Once building and security fence construction is complete, the internal road and sidewalks would be placed.



SOURCE: Sage Consultion Engineers, Inc., 2024

Operations, Engineering, and Maintenance Buildings

Figure 1
Landscape Concept Plan

Construction of the proposed modifications would extend from February 2025 through July 2027 as shown in Table 1 (substantial completion would occur from July through September 2027), which represents a 30-month construction period. The first two years of construction would overlap with other approved project construction activities, while the remainder represents a six-month extension of the current project construction schedule (in addendum 1 to the BDFP FEIR, for the biogas utilization system, the construction schedule for the project was extended one year to December 2026, which has since been extended through January 2027; the modified project reviewed in addendum 2 would extend that construction schedule to July 2027).

Table 1
Proposed Modifications: Construction Schedule

Construction Phase	Start Date	End Date	Duration (months)
Demolition	2/14/25	6/19/25	4
Grading and Utility Installation	6/20/25	11/24/25	5
Deep Foundations Construction	11/3/25	3/2/26	4
Erection – Superstructure, enclosure, framing, building systems, walls	12/1/25	11/20/26	12
Architectural Finishes	9/1/26	6/3/27	9
Site Work	12/22/26	7/2/27	6

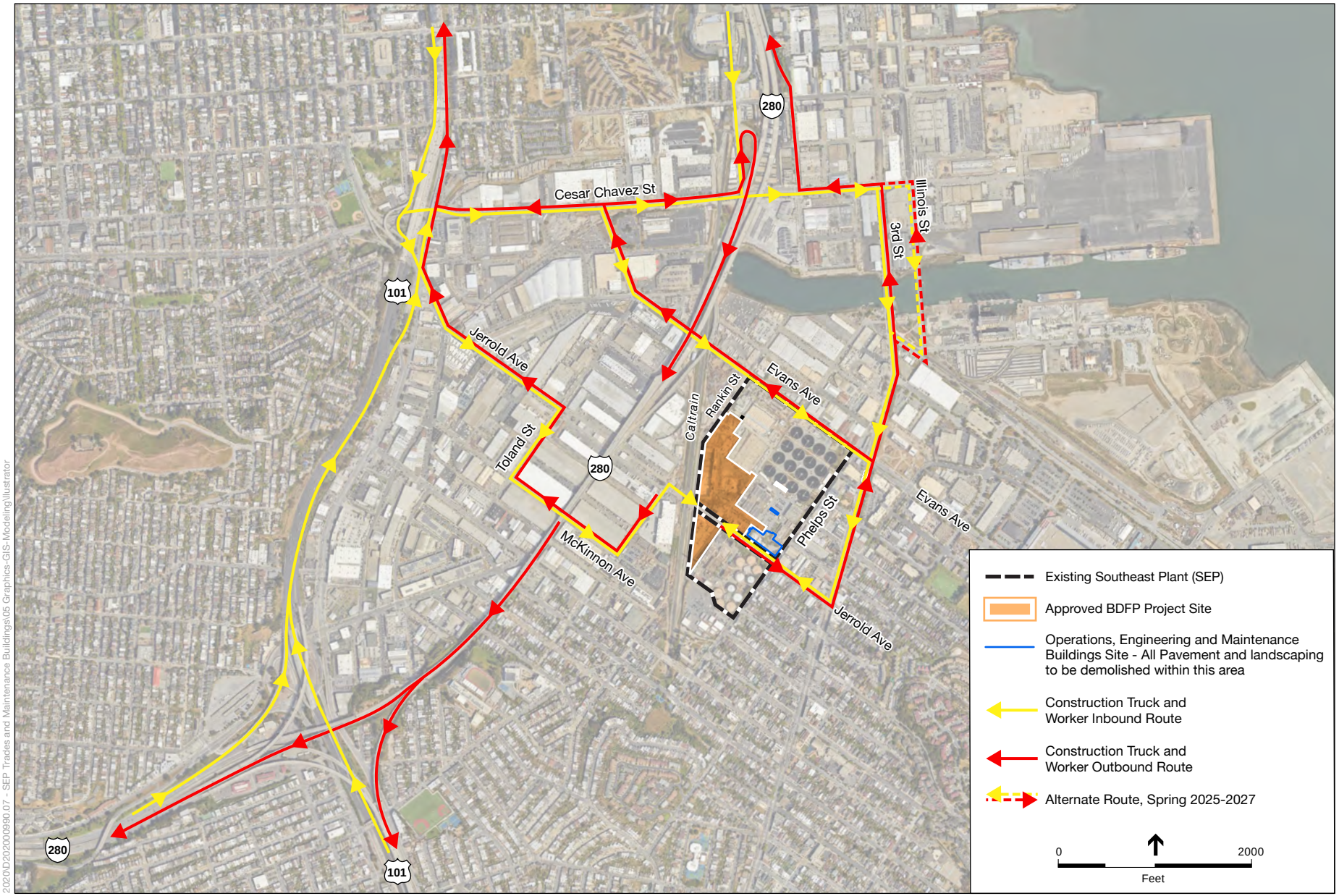
Source: Environmental Science Associates – 2024.

Most of the construction activities at the site would occur Monday through Friday from 7:00 a.m. to 4:30 p.m., the same days and time period as in the approved BDFP FEIR. Prior changes to the approved project extended the end date for construction staging as well as the length of the street closure along Jerrold Avenue to Phelps Street. The proposed modifications would further extend the construction schedule, including the closure of Jerrold Avenue, and add temporary construction worker vehicle parking, in an area large enough for approximately 90 construction worker vehicle parking spaces, at 2 Rankin Street.

Construction trucks and worker vehicles would use the routes shown on Figure 2 to access the site, instead of the routes shown in BDFP FEIR Figure 2-15, as approved in a prior minor project modification (MPM) number 7. Interim truck delivery and off-haul rates for ongoing operations at the Southeast Plant would be the same as shown in BDFP FEIR Figure 2-16.

OPERATIONS

The proposed modifications would not result in changes to the overall treatment capacity of the Southeast Plant. The SFPUC does not propose to increase the existing operations staff levels (about 280 people for the entire Southeast Plant) as part of the proposed modifications. The proposed modifications would not alter the operational employee vehicular travel, on-site employee or vehicle parking, or operational truck routes described in the BDFP FEIR.



2020\D2020009907 - SEP Trades and Maintenance Buildings\05 Graphics-GIS-Modeling\Illustrator

SOURCE: Google Maps 2023; ESA, 2023

Operations, Engineering, and Maintenance Buildings

Figure 2
New Truck Haul Routes

APPROVED PROJECT: BIOGAS UTILIZATION SYSTEM

The approved project includes construction and operation of a biogas utilization system (instead of the originally proposed energy recovery facilities) and other related changes to operational energy demand and supply, that were evaluated in addendum 1 to the BDFP FEIR. The biogas utilization system represents the most substantial construction activity that would overlap with the construction of the proposed modifications, from February 2025 through July 2027 (see **Table 1**).

The biogas utilization system would convert the digester gas generated at the Southeast Plant into renewable natural gas that would become part of the greater energy market. The biogas utilization system, consisting of two new sets of structures, would be built within the project area on either side of Jerrold Avenue between Quint Street and the Caltrain tracks. The Biogas Upgrade Facility south of Jerrold Avenue would include a thermal oxidizer comprised of piping, tanks, and storage container-type structures approximately 15 to 45 feet tall. The PG&E Interconnection Station and Deoxygenation System north of Jerrold Avenue would include above-ground valves and piping.

According to the current project schedule provided by the SFPUC, construction of the biogas utilization system would take almost two years to construct, from April 2025 through January 2027, and require up to approximately 20 workers at any one time.

TRAVEL DEMAND DURING CONSTRUCTION

The travel demand forecasts for the modified project during construction are based on the same methodology and information presented in the previous CEQA analysis of the BDFP, as well as data gathered from the SF Guidelines, as appropriate. Similar to the BDFP FEIR, the travel demand analysis focuses on the construction scenario for the modified project, given that, as previously described, once the modified project becomes operational, the Southeast Plant would have the same number of operational staff and truck demand as was previously analyzed in prior CEQA documents for the approved project.

For the analysis of the construction scenario for the modified project (i.e. the proposed modifications and the biogas utilization system), the same truck trip generation rates, hourly truck travel, and truck origins and destinations developed for the transportation evaluation in the BDFP FEIR were also applied to this analysis. Similarly, other assumptions used in the travel demand analysis related to construction workers, such as mode of travel, a.m. and p.m. peak hour trip generation rates, and average vehicle occupancy rates were also derived from transportation information presented in the BDFP FEIR.

The travel demand model developed for the analysis of the modified project includes four sequential steps (trip generation, mode of travel, trip distribution, and trips assignment). The results of implementing the model are presented in the following tables, which separately identify each project component. Travel demand during construction of the modified project was estimated for weekday daily, as well as the a.m. and p.m. peak hour conditions, and includes travel by construction workers and construction trucks associated

with the proposed modifications. The detailed travel demand calculations for the modified project are presented in Appendix A.

PROPOSED MODIFICATIONS

TRIP GENERATION

Table 2 summarizes the expected construction-related trip generation (workers and trucks) to and from the project site for the proposed modifications during each of the six construction phases.

As shown in Table 2, the maximum number of daily construction workers (60) present at the site would occur during the Erection and the Architectural Finishes phases. On the other hand, the highest number of daily construction-related truck traffic (17 daily trucks) would occur during the Grading and Utility Installation phase, followed by the Demolition and Architectural Finishes phases (seven daily trucks each).

Table 2
Proposed Modifications: Construction Daily Demand by Phase

Construction Phase	Number of Construction Workers	Number of Trucks [a]				
		Off-haul	Fill	Material Deliveries	Other Trucks [b]	Total
Demolition	20	2	0	0	5	7
Grading and Utility Installation	20	4	1	1	11	17
Deep Foundations Construction	40	0	0	1	4	5
Erection – Superstructure, enclosure, framing, building systems, walls	60	0	0	3	3	6
Architectural Finishes	60	0	0	4	3	7
Site Work	30	0	2	3	1	6

Notes:
a. The number of trucks shown in the table represent the number of heavy vehicles accessing the project site on a typical day, and it is equivalent to the number of daily round trips by truck. One-way truck trips are twice the values shown in the table.
b. Water trucks, tool trucks, delivery trucks, boom lift.

Source: Environmental Science Associates – 2024.

Based on the trip generation methodology presented in the BDFP FEIR, the daily trip generation rate for construction workers is two daily person trips per worker, one inbound to the site in the morning, plus one outbound from the site in the afternoon. This assumes that construction workers would either bring their own lunch to the site or travel (generally walk) a short distance to nearby food trucks or a lunch place.

Similarly, the daily trip generation rate for construction trucks is two vehicle trips per truck, one inbound trip to drop off (loaded truck) or pick up (empty truck) materials at the

site, plus a reverse trip leaving the site. Consistent with the BDFP FEIR, the analysis assumes an 8-hour workday for all truck operations.

Table 3 summarizes the weekday daily as well as the a.m. and p.m. peak hours construction worker person trips and construction truck vehicle trips for the proposed modifications for each of the six construction phases. The highest number of person trips would occur during the Erection and Architectural Finishes construction phases (120 daily one-way person trips and 60 one-way person trips during the peak hour), while the highest construction truck demand would occur during the Grading and Utility Installation phase (34 daily one-way truck trips and 5 one-way truck trips during the peak hour).

Table 3
Proposed Modifications: Construction Worker Daily and Hourly Demand by Phase

Construction Phase	Construction Workers One-way Person-trips		Total Construction Truck One-way Vehicle-trips	
	Daily	AM/PM Peak Hour [a]	Daily	AM/PM Peak Hour [b]
Demolition	40	20	14	2
Grading and Utility Installation	40	20	34	5
Deep Foundations Construction	80	40	10	2
Erection – Superstructure, enclosure, framing, building systems, walls	120	60	12	2
Architectural Finishes	120	60	14	2
Site Work	60	30	12	2

Notes:
a. Assumes construction worker trips are all inbound in the a.m. peak hour and all outbound in the p.m. peak hour (same as in BDFP FEIR)
b. Assumes an 8-hour day for truck operations (same as in BDFP FEIR); conservatively, values have been rounded up to the nearest integer. Half of the truck trips are inbound and half are outbound to/from the project site.

Source: Adavant Consulting – 2024.

MODE OF TRAVEL

Mode split or travel mode refer to the estimated way or method people travel (e.g., walking, bicycling, etc.). The daily and hourly construction worker person trips estimated in the previous step were allocated to ways of travel to determine the number of trips by auto, transit, walking and bicycling.

The same travel characteristics presented in the BDFP FEIR for construction workers were used to establish the mode split for the proposed modifications, which assumed that most (80 percent) of the construction workers travel would be by auto, with a small portion (20 percent) traveling by public transit. Table 4 presents the estimated number of daily, and a.m./p.m. peak hour person trips for construction workers by mode of travel and construction phase; more detailed calculations are presented in Appendix A.

Table 4
Proposed Modifications: Construction Worker Daily and Hourly Person-trip Demand by Mode of Travel and Phase

Construction Phase	Number of Construction Worker One-way Person Trips by Mode of Travel					
	Daily			AM/PM Peak Hour [a]		
	Auto	Transit	Total	Auto	Transit	Total
Demolition	32	8	40	16	4	20
Grading and Utility Installation	32	8	40	16	4	20
Deep Foundations Construction	64	16	80	32	8	40
Erection – Superstructure, enclosure, framing, building systems, walls	96	24	120	48	12	60
Architectural Finishes	96	24	120	48	12	60
Site Work	48	12	60	24	6	30

Note:
a. Assumes construction worker trips are all inbound in the a.m. peak hour and all outbound in the p.m. peak hour (same as in BDFP FEIR)

Source: Adavant Consulting – 2024.

Table 5 summarizes the estimated number of daily and peak hour one-way vehicle trips generated by construction workers during each phase. These were estimated by dividing the number of person trips made by auto mode as shown in Table 4, by an average vehicle occupancy of 1.28 persons per vehicle,[3] to account for some carpooling, in accordance with the data presented in the BDFP FEIR. The table also includes the total number of daily and peak hour one-way construction truck trips, based on the data previously presented in Table 3. As shown in Table 5, the highest combined number of daily and peak hour one-way vehicle trips generated by the proposed modifications (90 and 40, respectively) correspond to the Architectural Finishes construction phase, followed by the Erection phase (88 daily one-way vehicle trips and 40 one-way vehicle trips during the peak hour).

As previously indicated in Table 1, construction activities for the Erection phase and the Architectural phase would overlap during a three-month period, between September and November 2026, which would result in the highest travel demand values during the entire construction. Therefore, the overlap of these two construction phases will be used in the transportation impact analysis to represent the travel demand of the proposed modifications.

[3] The estimated number of passengers per vehicle is dependent on the place of origin or destination of the construction worker trip, resulting in an average vehicle occupancy of 1.28 persons per vehicle; more detailed calculations are presented in Appendix A.

As shown in Table 5, the number of vehicles generated by the construction workers during all analysis periods in most cases represents the vast majority (80 to 95 percent) of all the vehicle trips generated by the proposed modifications.

Table 5
Proposed Modifications: Construction Daily and Hourly Vehicle Demand by Phase

Construction Phase	Number of One-way Vehicle Trips					
	Daily			AM/PM Peak Hour		
	Workers [a]	Trucks	Total	Workers [b]	Trucks [c]	Total
Demolition	26	14	40	13	2	15
Grading and Utility Installation	26	34	60	13	5	18
Deep Foundations Construction	50	10	60	25	2	27
Erection – Superstructure, enclosure, framing, building systems, walls [d]	**76**	**12**	**88**	**38**	**2**	**40**
Architectural Finishes [d]	**76**	**14**	**90**	**38**	**2**	**40**
Site Work	38	12	50	19	2	21

Notes:

a. The number of daily worker trips is rounded up to the next even value, given that each worker performs an even number of one-way vehicle trips (one to the site and another from the site).
b. Assumes construction worker trips are all inbound in the a.m. peak hour and all outbound in the p.m. peak hour (same as in BDFP FEIR)
c. Assumes an 8-hour day for truck operations (same as in BDFP FEIR). Half of the truck trips are inbound and half are outbound to/from the project site.
d. The combination of the Erection construction phase and the Architectural Finishes construction phase, shown in **bold**, which would overlap between September and November 2026, represent the highest combined number of daily and peak hour vehicle trips and will be used to assess the potential transportation and circulation impact analyses of the proposed modifications.

Source: Adavant Consulting – 2024.

Table 6, presents the number of inbound and outbound daily one-way vehicle trips generated by the proposed modifications, as well as the in and out split during the a.m. and p.m. peak hours during the three-month period of overlap of the Erection construction phase with the Architectural Finishes construction phase.

Table 6
Proposed Modifications
Overlap of Erection Construction Phase with Architectural Finishes Construction Phase
(September through November 2026)
Daily and Hourly Inbound and Outbound Vehicle Demand [a]

Vehicle Type	Number of One-way Vehicle Trips								
	Daily			AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total
Workers [b]	76	76	152	76	0	76	0	76	76
Trucks [c]	13	13	26	2	2	4	2	2	4
All Vehicles	89	89	178	78	2	80	2	78	80

Notes:
a. Includes construction worker vehicle and truck trips.
b. Assumes construction worker trips are all inbound in the a.m. peak hour and all outbound in the p.m. peak hour (same as in BDFP FEIR).
c. Half of the truck trips are inbound and half are outbound to/from the project site.

Source: Adavant Consulting – 2024.

TRIP DISTRIBUTION

Trip distribution refers to whether the trip is destined towards (inbound) or away from (outbound) the project site, and to either an origin for inbound trips or destination for outbound trips (e.g., another neighborhood) of the trip relative to the project site. Thus, the person and vehicle trips estimated in the previous step for each land use were distributed to various points of trip origin or destination, and inbound versus outbound directionality. The trip origins and destinations were allocated to the four San Francisco quadrants and the East Bay, North Bay, and South Bay areas.

Data from the BDFP FEIR for construction workers were used to establish the split between inbound and outbound direction, and the origins and destinations. **Table 7** summarizes the inbound and outbound construction vehicle trips for the a.m. and p.m. peak hour for the three-month period of overlap of the Erection construction phase with the Architectural Finishes construction phase by place of origin or destination; the assumed origin/destination percentage information is presented in **Appendix A**.

Table 7
Proposed Modifications
Overlap of Erection Construction Phase with Architectural Finishes Construction Phase
AM and PM Peak Hour Inbound and Outbound Vehicle Demand
by Place of Origin or Destination

Place of Origin or Destination	Number of One-way Vehicle Trips [a]					
	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
San Francisco SD 1 – NE Quadrant	5	0	5	0	5	5
San Francisco SD 2 – NW Quadrant	7	0	7	0	7	7
San Francisco SD 3 – SE Quadrant	18	0	18	0	18	18
San Francisco SD4 – SW Quadrant	5	0	5	0	5	5
East Bay	7	0	7	0	7	7
North Bay	4	0	4	0	4	4
South Bay	31	2	33	2	31	33
Out of Region	1	0	1	0	1	1
All Origins/Destinations	78	2	80	2	78	80

Note:
a. Includes construction worker vehicle and truck trips.

Source: Adavant Consulting – 2024.

TRIP ASSIGNMENT

The inbound and outbound vehicle trips generated by the proposed modifications and presented in **Table 7** were used as a basis for assigning trips to the transportation network during the a.m. and p.m. peak hours. The construction worker vehicle trips were assigned to the local streets near the project site in a similar manner to those analyzed in the BDFP FEIR, which took into account the most direct routes, the number of travel lanes on the various streets, and typical travel patterns in the area. The truck trips were assigned to the street network in accordance to the routes presented in **Figure 2**.

The results of the trip assignment process for the vehicle trips generated by the proposed modifications during the a.m. and p.m. peak hour are summarized in **Table 8** for key street segments within the study area; they are the same segments as those evaluated in the BDFP FEIR. As shown in the table, most of the vehicle trips generated by the proposed modifications, which corresponds to construction workers, would utilize Rankin Street to access the proposed worker vehicle parking to be located at 2 Rankin Street. Construction trucks would utilize Jerrold Avenue, and then continue onto Third Street to access the I-280 freeway, or vice versa.

Table 8
Proposed Modifications – Overlap of Erection Construction Phase
with Architectural Finishes Construction Phase
AM and PM Peak Hour Vehicle Trip Assignment

Street Name	Location	Two-way Vehicle-trips [a]	
		AM Peak Hour	PM Peak Hour
Evans Avenue	East of Phelps St	14	27
	West of Phelps St	33	33
	West of Rankin St	43	43
Jerold Avenue	East of Phelps St	4	4
	West of Phelps St	4	4
Oakdale Avenue	East of Phelps St	0	0
	West of Phelps St	6	6
Phelps Street	South of Evans Ave.	6	6
	North of Oakdale Ave.	6	6
Rankin Street	North of Evans Ave.	76	76

Note:
a. Includes construction worker vehicle and truck trips.

Source: Adavant Consulting – 2024.

APPROVED PROJECT: BIOGAS UTILIZATION SYSTEM

As described above (**Table 5**), the highest level of construction-related travel demand for the proposed modifications would occur between September and November 2026, when construction activities for the Erection phase and the Architectural phase would overlap. Remaining construction on the approved project during fall 2026 would be limited to work on the biogas utilization system, requiring up to approximately 20 workers and two daily trucks[4] at any one time.

Assumptions used to estimate construction-related travel demand of the biogas utilization system analysis related to workers and trucks are consistent with those shown above for the proposed modifications, as well as transportation information presented in the BDFP FEIR.

TRIP GENERATION AND MODE OF TRAVEL

Table 9 summarizes the expected construction-related daily and peak hour person-trip generation (workers and trucks) to and from the project site during construction of the biogas utilization system, while **Table 10** presents the estimated number of daily, and

[4] The number of daily construction trucks associated with the biogas utilization system has been estimated based on an average ratio of 15 workers per truck, obtained from worker and truck data presented in the BDFP FEIR.

a.m./p.m. peak hour person trips for construction workers by mode of travel and construction phase; more detailed calculations are presented in Appendix B.

Table 9
Biogas Utilization System – Construction Daily and Peak Hour Person-trip Demand

Construction Phase	Construction Workers	Trucks [a]
Daily		
Number of workers/trucks	20	2
Person-trips	40	--
AM/PM Peak Hour [b]		
Person-trips	20	--

Notes:
a. The number of daily construction trucks associated with the biogas utilization system has been estimated based on an average ratio of 15 workers per truck, obtained from worker and truck data presented in the BDFP FEIR; it represents the number of daily round trips to the project site by truck.
b. Assumes construction worker trips are all inbound in the a.m. peak hour and all outbound in the p.m. peak hour (same as in BDFP FEIR).

Source: Environmental Science Associates/Adavant Consulting – 2024.

Table 10
Biogas Utilization System – Construction Worker Daily and Hourly One-way Person-trip Demand by Mode of Travel

Mode of Travel	Daily	AM/PM Peak Hour [a]
Auto	32	16
Transit	8	4
Total	40	20

Note:
a. Assumes construction worker trips are all inbound in the a.m. peak hour and all outbound in the p.m. peak hour (same as in BDFP FEIR)

Source: Adavant Consulting – 2024.

Table 11 summarizes the estimated number of daily and peak hour one-way vehicle trips generated by the biogas utilization system during construction, using the same methodology previously presented in this document for the proposed modifications. The estimated number of passengers per vehicle is dependent on the place of origin or destination of the construction worker trip, resulting in an average vehicle occupancy of 1.28 persons per vehicle; more detailed calculations are presented in Appendix A.

Table 11
Biogas Utilization System – Construction Worker Daily and Hourly One-way Vehicle-trip Demand

Time Period	Inbound	Outbound	Total
Daily			
Workers	12	12	24
Trucks	2	2	4
All Vehicles	14	14	28
AM Peak Hour			
Workers	12	0	12
Trucks	1	0	1
All Vehicles	13	0	13
PM Peak Hour			
Workers	0	12	12
Trucks	0	1	1
All Vehicles	0	13	13

Note:
a. Assumes construction worker trips are all inbound in the a.m. peak hour and all outbound in the p.m. peak hour (same as in BDFP FEIR)

Source: Adavant Consulting – 2024.

TRIP DISTRIBUTION

Table 12 summarizes the inbound and outbound construction vehicle trips for the a.m. and p.m. peak hour for the biogas utilization system by place of origin or destination; the assumed origin/destination percentage information is presented in Appendix B.

Table 12
Biogas Utilization System
AM and PM Peak Hour Inbound and Outbound Construction Vehicle Demand
by Place of Origin or Destination

Place of Origin or Destination	Number of One-way Vehicle Trips [a]					
	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
San Francisco SD 1 – NE Quadrant	1	0	1	0	1	1
San Francisco SD 2 – NW Quadrant	1	0	1	0	1	1
San Francisco SD 3 – SE Quadrant	3	0	3	0	3	3
San Francisco SD4 – SW Quadrant	1	0	1	0	1	1
East Bay	1	0	1	0	1	1
North Bay	1	0	1	0	1	1
South Bay	5	0	5	0	5	5
Out of Region	0	0	0	0	0	0
All Origins/Destinations	13	0	13	0	13	13

Note:
a. Includes construction worker vehicle and truck trips.
Source: Adavant Consulting – 2024.

TRIP ASSIGNMENT

The results of the trip assignment process for the vehicle trips generated by the biogas utilization system during the a.m. and p.m. peak hour are summarized in **Table 13** for the key street segments within the study area; they are the same segments as those that have been presented in **Table 8** for the proposed modifications, and previously evaluated for the approved project in the BDFP FEIR. As shown in the table, most of the construction traffic generated by the biogas utilization project would operate on Oakdale Avenue.

Table 13
Biogas Utilization System
AM and PM Peak Hour Vehicle Trip Assignment

Street Name	Location	Two-way Vehicle-trips [a]	
		AM Peak Hour	PM Peak Hour
Evans Avenue	East of Phelps St	0	0
	West of Phelps St	0	0
	West of Rankin St	0	0
Jerold Avenue	East of Phelps St	0	0
	West of Phelps St	0	0
Oakdale Avenue	East of Phelps St	6	6
	West of Phelps St	6	6
Phelps Street	South of Evans Ave.	0	0
	North of Oakdale Ave.	0	0
Rankin Street	North of Evans Ave.	0	0

Note:
a. Includes construction worker vehicle and truck trips.

Source: Adavant Consulting – 2024.

MODIFIED PROJECT

As described above, the proposed modifications in combination with the approved project define the modified project. Table 14 presents a summary of the person and vehicle trip totals for the modified project, while Table 15 presents the results of the trip assignment process for the modified project, a combination of the data shown in Table 8 and Table 13.

Table 14
Modified Project
Daily and Peak Hour Person- and Vehicle-trip Demand

	Person-trips [a]		Vehicle Trips [b]	
	Daily	AM/PM Peak Hour	Daily	AM/PM Peak Hour
Proposed Modifications	240	120	178	80
Biogas Utilization System	40	20	28	13
Modified Project	280	140	206	93

Notes:
a. From information presented in Table 3 and Table 9.
b. From information presented in Table 6 and Table 11.

Source: Adavant Consulting – 2024.

Table 15
Modified Project
AM and PM Peak Hour Vehicle Trip Assignment

Street Name	Location	Two-way Vehicle-trips [a]	
		AM Peak Hour	PM Peak Hour
Evans Avenue	East of Phelps St	14	27
	West of Phelps St	33	33
	West of Rankin St	43	43
Jerold Avenue	East of Phelps St	4	4
	West of Phelps St	4	4
Oakdale Avenue	East of Phelps St	6	6
	West of Phelps St	12	12
Phelps Street	South of Evans Ave.	6	6
	North of Oakdale Ave.	6	6
Rankin Street	North of Evans Ave.	76	76

Note:
a. Includes construction worker vehicle and truck trips.

Source: Adavant Consulting – 2024.

APPENDIX A
TRAVEL DEMAND CALCULATIONS: PROPOSED MODIFICATIONS

Biosolids Digester Facilities Project
Operations, Engineering, and Maintenance Buildings Project

Construction Phase	Start Date	End Date	Number of workdays in Phase	Construction workers per day	One-Way Truck-trips					
					Off-haul	Fill	Materials Deliveries	Other Trucks [a]	Total Trips per day	Total Trips per hour [b]
Demolition (NTP)	2/14/2025	6/19/2025	90	20	4	0	0	10	14	2
Grading and Utilities	6/20/2025	11/24/2025	112	20	8	2	2	22	34	5
Deep Foundations	11/3/2025	3/2/2026	86	40	0	0	2	8	10	2
Erection – Superstructure, enclosure, framing, building	12/1/2025	11/20/2026	255	60	0	0	6	6	12	2
Architectural Finishes	9/1/2026	6/3/2027	198	60	0	0	8	6	14	2
Site Work	12/22/2026	7/2/2027	139	30	0	4	6	2	12	2
Substantial Completion		9/3/2027								

Notes:

[a] Water trucks, tool trucks, delivery trucks, boom lift

[b] Assumes an 8-hour day for truck operations (same as in BDFP FEIR)

Biosolids Digester Facilities Project
Operations, Engineering, and Maintenance Buildings Project
Vehicle Trips by Construction Phase

Month/ Year	Daily Construction Worker Vehicle Trips							Daily Construction Truck Trips							Daily Workers + Trucks	Hourly Workers	Hourly Trucks	Hourly Workers + Trucks
	Phase 1 Demo	Phase 2 Grading	Phase 3 Found.	Phase 4 Erection	Phase 5 Finishes	Phase 6 Site Wrk	Total	Phase 1 Demo	Phase 2 Grading	Phase 3 Found.	Phase 4 Erection	Phase 5 Finishes	Phase 6 Site Wrk	Total				
February 2025	26						26	14						14	40	13	2	15
March 2025	26						26	14						14	40	13	2	15
April 2025	26						26	14						14	40	13	2	15
May 2025	26						26	14						14	40	13	2	15
June 2025	26						26	14						14	40	13	2	15
July 2025		26					26		34					34	60	13	5	18
August 2025		26					26		34					34	60	13	5	18
September 2025		26					26		34					34	60	13	5	18
October 2025		26					26		34					34	60	13	5	18
November 2025		26	50				76		34	10				44	120	38	6	44
December 2025			50	76			126			10	12			22	148	63	3	66
January 2026			50	76			126			10	12			22	148	63	3	66
February 2026			50	76			126			10	12			22	148	63	3	66
March 2026			50	76			126			10	12			22	148	63	3	66
April 2026				76			76				12			12	88	38	2	40
May 2026				76			76				12			12	88	38	2	40
June 2026				76			76				12			12	88	38	2	40
July 2026				76			76				12			12	88	38	2	40
August 2026				76			76				12			12	88	38	2	40
September 2026				76	76		152				12	14		26	178	76	4	80
October 2026				76	76		152				12	14		26	178	76	4	80
November 2026				76	76		152				12	14		26	178	76	4	80
December 2026					76	38	114					14	12	26	140	57	4	61
January 2027					76	38	114					14	12	26	140	57	4	61
February 2027					76	38	114					14	12	26	140	57	4	61
March 2027					76	38	114					14	12	26	140	57	4	61
April 2027					76	38	114					14	12	26	140	57	4	61
May 2027					76	38	114					14	12	26	140	57	4	61
June 2027					76	38	114					14	12	26	140	57	4	61
July 2027						38	38						12	12	50	19	2	21
Modified Project Person Trips				120	120		240									120		

Biosolids Digester Facilities Project
Operations, Engineering, and Maintenance Buildings Project

Construction Phases: Combined 4-Erection & 5-Architectural Finishes

Proposed Size:		**120 workers (single shift)**						
DAILY					**AM PEAK HOUR**		**PM PEAK HOUR**	
Person-trip Generation Rate [1]:		2.0 trips/worker	Person-trip Gen Rate [4]:	50.0%	1.0	50.0%	1.0
Total Person Trips:		240 person-trips	Total Person-trips:		120		120
Total Work Trips:	100%	240 person-trips	Work Person-trips:	100%	120	100%	120

Percent of Origin Distribution [2]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [2]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
	Auto	67.3%	1.30	13	10	7	5	7	5
SF Superdistrict 1	Transit	32.7%		7		3		3	
8.3%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		20	10	10	5	10	5
	Auto	73.6%	1.26	19	15	9	7	9	7
SF Superdistrict 2	Transit	26.4%		7		3		3	
10.6%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		25	15	13	7	13	7
	Auto	79.4%	1.25	46	36	23	18	23	18
SF Superdistrict 3	Transit	20.6%		12		6		6	
23.9%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		57	36	29	18	29	18
	Auto	78.5%	1.48	15	10	7	5	7	5
SF Superdistrict 4	Transit	21.5%		4		2		2	
7.9%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		19	10	9	5	9	5
	Auto	70.3%	1.61	24	15	12	7	12	7
East Bay	Transit	29.7%		10		5		5	
14.3%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		34	15	17	7	17	7
	Auto	89.5%	1.44	12	8	6	4	6	4
North Bay	Transit	10.5%		1		1		1	
5.6%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		13	8	7	4	7	4
	Auto	91.2%	1.13	59	52	29	26	29	26
South Bay	Transit	8.8%		6		3		3	
26.9%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		65	52	32	26	32	26
	Auto	64.7%	1.56	4	2	2	1	2	1
Out of Region	Transit	35.3%		2		1		1	
2.5%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		6	2	3	1	3	1
	Auto	**79.8%**	**1.28**	**191**	**150**	**96**	**75**	**96**	**75**
All Origins	**Transit**	**20.2%**		**49**		**24**		**24**	
100.0%	**Walk**	**0.0%**		**0**		**0**		**0**	
	Other	**0.0%**		**0**		**0**		**0**	
	All Modes	**100.0%**		**240**	**150**	**120**	**75**	**120**	**75**

Notes:

[1] One inbound plus one outbound trip per worker

[2] SF Guidelines, Appendix E - Table E-5 Work Trips to SD3 (All)

[3] Adapted from SF Guidelines, Appendix E - Table E-5 Work Trips to SD3 (All); Walk and Other trip % moved to Auto.

[4] Half of the trips (inbound) occur in the AM and the other half (outbound) occur in the PM

Biosolids Digester Facilities Project
Operations, Engineering, and Maintenance Buildings Project

Construction Phases: 1-Demolition & 2-Grading and Utilities

Proposed Size:		**20 workers (single shift)**						
DAILY					**AM PEAK HOUR**		**PM PEAK HOUR**	
Person-trip Generation Rate [1]:		2.0 trips/worker	Person-trip Gen Rate [4]:	50.0%	1.0	50.0%	1.0
Total Person Trips:		40 person-trips	Total Person-trips:		20		20
Total Work Trips:	100%	40 person-trips	Work Person-trips:	100%	20	100%	20

Percent of Origin Distribution [2]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [2]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
	Auto	67.3%	1.30	2	2	1	1	1	1
SF Superdistrict 1	Transit	32.7%		1		1		1	
8.3%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		3	2	2	1	2	1
	Auto	73.6%	1.26	3	2	2	1	2	1
SF Superdistrict 2	Transit	26.4%		1		1		1	
10.6%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		4	2	2	1	2	1
	Auto	79.4%	1.25	8	6	4	3	4	3
SF Superdistrict 3	Transit	20.6%		2		1		1	
23.9%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		10	6	5	3	5	3
	Auto	78.5%	1.48	2	2	1	1	1	1
SF Superdistrict 4	Transit	21.5%		1		0		0	
7.9%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		3	2	2	1	2	1
	Auto	70.3%	1.61	4	2	2	1	2	1
East Bay	Transit	29.7%		2		1		1	
14.3%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		6	2	3	1	3	1
	Auto	89.5%	1.44	2	1	1	1	1	1
North Bay	Transit	10.5%		0		0		0	
5.6%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		2	1	1	1	1	1
	Auto	91.2%	1.13	10	9	5	4	5	4
South Bay	Transit	8.8%		1		0		0	
26.9%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		11	9	5	4	5	4
	Auto	64.7%	1.56	1	0	0	0	0	0
Out of Region	Transit	35.3%		0		0		0	
2.5%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		1	0	1	0	1	0
	Auto	**79.8%**	**1.28**	**32**	**25**	**16**	**12**	**16**	**12**
All Origins	**Transit**	**20.2%**		**8**		**4**		**4**	
100.0%	**Walk**	**0.0%**		**0**		**0**		**0**	
	Other	**0.0%**		**0**		**0**		**0**	
	All Modes	**100.0%**		**40**	**25**	**20**	**12**	**20**	**12**

Notes:

[1] One inbound plus one outbound trip per worker

[2] SF Guidelines, Appendix E - Table E-5 Work Trips to SD3 (All)

[3] Adapted from SF Guidelines, Appendix E - Table E-5 Work Trips to SD3 (All); Walk and Other trip % moved to Auto.

[4] Half of the trips (inbound) occur in the AM and the other half (outbound) occur in the PM

Biosolids Digester Facilities Project
Operations, Engineering, and Maintenance Buildings Project
Construction Phase: 3-Deep Foundations

Proposed Size:		40 workers (single shift)						
DAILY					AM PEAK HOUR		PM PEAK HOUR	
Person-trip Generation Rate [1]:		2.0 trips/worker	Person-trip Gen Rate [4]:		50.0%	1.0	50.0%	1.0
Total Person Trips:		80 person-trips	Total Person-trips:			40		40
Total Work Trips:	100%	80 person-trips	Work Person-trips:		100%	40	100%	40

Percent of Origin Distribution [2]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [2]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
SF Superdistrict 1 8.3%	Auto	67.3%	1.30	4	3	2	2	2	2
	Transit	32.7%		2		1		1	
	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		7	3	3	2	3	2
SF Superdistrict 2 10.6%	Auto	73.6%	1.26	6	5	3	2	3	2
	Transit	26.4%		2		1		1	
	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		8	5	4	2	4	2
SF Superdistrict 3 23.9%	Auto	79.4%	1.25	15	12	8	6	8	6
	Transit	20.6%		4		2		2	
	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		19	12	10	6	10	6
SF Superdistrict 4 7.9%	Auto	78.5%	1.48	5	3	2	2	2	2
	Transit	21.5%		1		1		1	
	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		6	3	3	2	3	2
East Bay 14.3%	Auto	70.3%	1.61	8	5	4	2	4	2
	Transit	29.7%		3		2		2	
	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		11	5	6	2	6	2
North Bay 5.6%	Auto	89.5%	1.44	4	3	2	1	2	1
	Transit	10.5%		0		0		0	
	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		4	3	2	1	2	1
South Bay 26.9%	Auto	91.2%	1.13	20	17	10	9	10	9
	Transit	8.8%		2		1		1	
	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		22	17	11	9	11	9
Out of Region 2.5%	Auto	64.7%	1.56	1	1	1	0	1	0
	Transit	35.3%		1		0		0	
	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		2	1	1	0	1	0
All Origins 100.0%	**Auto**	**79.8%**	**1.28**	**64**	**50**	**32**	**25**	**32**	**25**
	Transit	**20.2%**		**16**		**8**		**8**	
	Walk	**0.0%**		**0**		**0**		**0**	
	Other	**0.0%**		**0**		**0**		**0**	
	All Modes	**100.0%**		**80**	**50**	**40**	**25**	**40**	**25**

Notes:
[1] One inbound plus one outbound trip per worker
[2] SF Guidelines, Appendix E - Table E-5 Work Trips to SD3 (All)
[3] Adapted from SF Guidelines, Appendix E - Table E-5 Work Trips to SD3 (All); Walk and Other trip % moved to Auto.
[4] Half of the trips (inbound) occur in the AM and the other half (outbound) occur in the PM

Biosolids Digester Facilities Project
Operations, Engineering, and Maintenance Buildings Project

Construction Phases: 4-Erection & 5-Architectural Finishes

Proposed Size:		**60 workers (single shift)**						
DAILY					**AM PEAK HOUR**		**PM PEAK HOUR**	
Person-trip Generation Rate [1]:		2.0 trips/worker	Person-trip Gen Rate [4]:	50.0%	1.0	50.0%	1.0
Total Person Trips:		120 person-trips	Total Person-trips:		60		60
Total Work Trips:	100%	120 person-trips	Work Person-trips:	100%	60	100%	60

Percent of Origin Distribution [2]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [2]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
	Auto	67.3%	1.30	7	5	3	3	3	3
SF Superdistrict 1	Transit	32.7%		3		2		2	
8.3%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		10	5	5	3	5	3
	Auto	73.6%	1.26	9	7	5	4	5	4
SF Superdistrict 2	Transit	26.4%		3		2		2	
10.6%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		13	7	6	4	6	4
	Auto	79.4%	1.25	23	18	11	9	11	9
SF Superdistrict 3	Transit	20.6%		6		3		3	
23.9%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		29	18	14	9	14	9
	Auto	78.5%	1.48	7	5	4	3	4	3
SF Superdistrict 4	Transit	21.5%		2		1		1	
7.9%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		9	5	5	3	5	3
	Auto	70.3%	1.61	12	7	6	4	6	4
East Bay	Transit	29.7%		5		3		3	
14.3%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		17	7	9	4	9	4
	Auto	89.5%	1.44	6	4	3	2	3	2
North Bay	Transit	10.5%		1		0		0	
5.6%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		7	4	3	2	3	2
	Auto	91.2%	1.13	29	26	15	13	15	13
South Bay	Transit	8.8%		3		1		1	
26.9%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		32	26	16	13	16	13
	Auto	64.7%	1.56	2	1	1	1	1	1
Out of Region	Transit	35.3%		1		1		1	
2.5%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		3	1	2	1	2	1
	Auto	**79.8%**	**1.28**	**96**	**75**	**48**	**37**	**48**	**37**
All Origins	**Transit**	**20.2%**		**24**		**12**		**12**	
100.0%	**Walk**	**0.0%**		**0**		**0**		**0**	
	Other	**0.0%**		**0**		**0**		**0**	
	All Modes	**100.0%**		**120**	**75**	**60**	**37**	**60**	**37**

Notes:

[1] One inbound plus one outbound trip per worker

[2] SF Guidelines, Appendix E - Table E-5 Work Trips to SD3 (All)

[3] Adapted from SF Guidelines, Appendix E - Table E-5 Work Trips to SD3 (All); Walk and Other trip % moved to Auto.

[4] Half of the trips (inbound) occur in the AM and the other half (outbound) occur in the PM

Biosolids Digester Facilities Project
Operations, Engineering, and Maintenance Buildings Project

Construction Phases: 6-Site Work

Proposed Size:		**30 workers (single shift)**						
DAILY					**AM PEAK HOUR**		**PM PEAK HOUR**	
Person-trip Generation Rate [1]:		2.0 trips/worker	Person-trip Gen Rate [4]:	50.0%	1.0	50.0%	1.0
Total Person Trips:		60 person-trips	Total Person-trips:		30		30
Total Work Trips:	100%	60 person-trips	Work Person-trips:	100%	30	100%	30

Percent of Origin Distribution [2]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [2]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
	Auto	67.3%	1.30	3	3	2	1	2	1
SF Superdistrict 1	Transit	32.7%		2		1		1	
8.3%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		5	3	2	1	2	1
	Auto	73.6%	1.26	5	4	2	2	2	2
SF Superdistrict 2	Transit	26.4%		2		1		1	
10.6%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		6	4	3	2	3	2
	Auto	79.4%	1.25	11	9	6	5	6	5
SF Superdistrict 3	Transit	20.6%		3		1		1	
23.9%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		14	9	7	5	7	5
	Auto	78.5%	1.48	4	3	2	1	2	1
SF Superdistrict 4	Transit	21.5%		1		1		1	
7.9%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		5	3	2	1	2	1
	Auto	70.3%	1.61	6	4	3	2	3	2
East Bay	Transit	29.7%		3		1		1	
14.3%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		9	4	4	2	4	2
	Auto	89.5%	1.44	3	2	2	1	2	1
North Bay	Transit	10.5%		0		0		0	
5.6%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		3	2	2	1	2	1
	Auto	91.2%	1.13	15	13	7	7	7	7
South Bay	Transit	8.8%		1		1		1	
26.9%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		16	13	8	7	8	7
	Auto	64.7%	1.56	1	1	0	0	0	0
Out of Region	Transit	35.3%		1		0		0	
2.5%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		2	1	1	0	1	0
	Auto	**79.8%**	**1.28**	**48**	**37**	**24**	**19**	**24**	**19**
All Origins	**Transit**	**20.2%**		**12**		**6**		**6**	
100.0%	**Walk**	**0.0%**		**0**		**0**		**0**	
	Other	**0.0%**		**0**		**0**		**0**	
	All Modes	**100.0%**		**60**	**37**	**30**	**19**	**30**	**19**

Notes:

[1] One inbound plus one outbound trip per worker

[2] SF Guidelines, Appendix E - Table E-5 Work Trips to SD3 (All)

[3] Adapted from SF Guidelines, Appendix E - Table E-5 Work Trips to SD3 (All); Walk and Other trip % moved to Auto.

[4] Half of the trips (inbound) occur in the AM and the other half (outbound) occur in the PM

APPENDIX B
TRAVEL DEMAND CALCULATIONS: BIOSOLID GAS UTILIZATION SYSTEM

Biosolids Digester Facilities Project
Biogas Utilization System
Construction Phase: Fall 2026

Proposed Size:		**20 workers (single shift)**						
DAILY					**AM PEAK HOUR**		**PM PEAK HOUR**	
Person-trip Generation Rate [1]:		2.0 trips/worker	Person-trip Gen Rate [4]:	50.0%	1.0	50.0%	1.0
Total Person Trips:		40 person-trips	Total Person-trips:		20		20
Total Work Trips:	100%	40 person-trips	Work Person-trips:	100%	20	100%	20

Percent of Origin Distribution [2]	Mode of Travel	Percent Distribution [3]	Average Vehicle Occupancy [2]	Daily		AM Peak Hour		PM Peak Hour	
				Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips	Person Trips	Vehicle-Trips
	Auto	67.3%	1.30	2	2	1	1	1	1
SF Superdistrict 1	Transit	32.7%		1		1		1	
8.3%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		3	2	2	1	2	1
	Auto	73.6%	1.26	3	2	2	1	2	1
SF Superdistrict 2	Transit	26.4%		1		1		1	
10.6%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		4	2	2	1	2	1
	Auto	79.4%	1.25	8	6	4	3	4	3
SF Superdistrict 3	Transit	20.6%		2		1		1	
23.9%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		10	6	5	3	5	3
	Auto	78.5%	1.48	2	2	1	1	1	1
SF Superdistrict 4	Transit	21.5%		1		0		0	
7.9%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		3	2	2	1	2	1
	Auto	70.3%	1.61	4	2	2	1	2	1
East Bay	Transit	29.7%		2		1		1	
14.3%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		6	2	3	1	3	1
	Auto	89.5%	1.44	2	1	1	1	1	1
North Bay	Transit	10.5%		0		0		0	
5.6%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		2	1	1	1	1	1
	Auto	91.2%	1.13	10	9	5	4	5	4
South Bay	Transit	8.8%		1		0		0	
26.9%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		11	9	5	4	5	4
	Auto	64.7%	1.56	1	0	0	0	0	0
Out of Region	Transit	35.3%		0		0		0	
2.5%	Walk			0		0		0	
	Other			0		0		0	
	All Modes	100.0%		1	0	1	0	1	0
All Origins 100.0%	**Auto**	**79.8%**	**1.28**	**32**	**25**	**16**	**12**	**16**	**12**
	Transit	**20.2%**		**8**		**4**		**4**	
	Walk	**0.0%**		**0**		**0**		**0**	
	Other	**0.0%**		**0**		**0**		**0**	
	All Modes	**100.0%**		**40**	**25**	**20**	**12**	**20**	**12**

Notes:
[1] One inbound plus one outbound trip per worker
[2] SF Guidelines, Appendix E - Table E-5 Work Trips to SD3 (All)
[3] Adapted from SF Guidelines, Appendix E - Table E-5 Work Trips to SD3 (All); Walk and Other trip % moved to Auto.
[4] Half of the trips (inbound) occur in the AM and the other half (outbound) occur in the PM

APPENDIX F
GREENHOUSE GAS CHECKLIST

San Francisco Planning

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COMPLIANCE CHECKLIST TABLE FOR GREENHOUSE GAS ANALYSIS: TABLE 2. MUNICIPAL PROJECTS

A. GENERAL PROJECT INFORMATION:

Date:	Case No.:
November 26, 2024	2015-000644ENV-02
Project Name:	
Biosolids Digester Facilities Project - Operations, Engineering and Maintenance Buildings	
Project Address:	**Block/Lot:**
750 Phelps Street	5262/009
Standard to be met (Select one)[1]:	**Date of site permit submittal (if applicable):**
Not Applicable	
Compliance Checklist Prepared By:	**Date:**
Kelly Yong	**November 26, 2024**

Brief Project Description:

On March 13, 2018, the San Francisco Public Utilities Commission (SFPUC) approved construction of new solids treatment, odor control, energy recovery, and associated facilities as part of improvements to the wastewater treatment facilities at the existing Southeast Water Pollution Control Plant (SEP) in San Francisco. The approved project includes the construction and operation of a new solids treatment process, odor control, energy recovery, and associated facilities to replace outdated existing facilities with more reliable, efficient, and modern technologies. As part of the planning process, the SFPUC completed a compliance checklist for greenhouse gas analysis for the project.

Since completing the compliance checklist, the SFPUC has proposed multiple minor changes to the approved project. The San Francisco Planning Department's Environmental Planning Division determined these were minor project modifications that would clearly not alter the FEIR conclusions, including related to greenhouse gas emissions, and documented the changes with memoranda to the case file.

At the time the previous compliance checklist was completed, the project included biogas recovery facilities that would generate sufficient levels of electricity to ultimately power all BDFP process facilities. Since completion of the previous compliance checklist, the SFPUC has proposed a biogas utilization system instead of the originally proposed energy recovery facilities and related changes to operational energy demand and supply. The biogas utilization system would allow SFPUC to provide renewable natural gas to PG&E through a new interconnection station and deoxygenation system.

The SFPUC proposes constructing two new buildings, an Operations, Engineering, and Maintenance building and a Mechanical

1 Refers to the standard to be met per the San Francisco Green Building Code. See http://sfdbi.org/administrative-bulletins for latest "AB-093" to determine which standard your project is required to meet, if applicable.

Maintenance building, replacing the current function of building SEP 850 and temporary prefabricated trailers. These proposed buildings would total approximately 44,000 square feet and are expected to be constructed from 2025 through 2027.

Overall project construction began in January 2020 and was expected to take approximately five years. However, construction is now estimated to take 1.5 years longer than anticipated, independent of the project revisions. Construction of the modified project, including the new buildings, will extend through 2027. As with the approved project, the modified project would not result in changes to the overall treatment capacity of the Southeast Plant. The SFPUC does not propose to increase the existing operations staff levels (about 280 people for the entire Southeast Plant) as part of the modified project.

B. COMPLIANCE CHECKLIST TABLE

Instructions: Complete the following table by determining project compliance with the identified adopted regulations and providing project-level details in the "Remarks" column which explains the selection. Projects that do not comply with an ordinance/regulation may be determined to be inconsistent with San Francisco's qualified GHG reduction strategy, although compliance with most ordinance/regulations is not optional. (See next page)

San Francisco Planning

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Table 2. Regulations Applicable to Municipal Projects

REGULATION	REQUIREMENT	PROJECT COMPLIANCE	SPECIFY HOW PROJECT WOULD COMPLY/NOT COMPLY OR WHY REGULATION NOT APPLICABLE
TRANSPORTATION SECTOR			
Commuter Benefits Ordinance (San Francisco Environment Code, section 427)	City employees are eligible for pre-tax commuter benefits for transit and vanpool expenses.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	All City employees, including San Francisco Public Utilities Commission (SFPUC) staff, are provided commuter benefits in accordance with Environment Code Section 427.
Healthy Air and Clean Transportation Ordinance – Implementing Transit First (San Francisco Environment Code, section 403(a))	Requires all City officers, boards, commissions and department heads responsible for departments that require transportation to fulfill their official duties to reduce the municipal fleet by implementing transit-first policies by: • Maximizing the use of public transit, including taxis, vanpools, and car-sharing; • Facilitating travel by bicycle, or on foot; and, • Minimizing the use of single-occupancy motor vehicles, for travel required in the performance of public duties.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	SFPUC provides to employees commuter checks, bicycle parking, carpooling and/or transit opportunities to in City off-site events to encourage transit-first policies.
Healthy Air and Clean Transportation Ordinance – Optimizing Fleet Management (San Francisco Environment Code, section 403(b))	Requires the reduction of the number of passenger vehicles and light-duty trucks in the municipal fleet. In addition, requires new purchases or leases of passenger vehicles and light-duty trucks to be the cleanest and most efficient vehicles available on the market.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Existing SFPUC fleet vehicles may be utilized for operation and maintenance activities by SFPUC staff at existing and proposed facilities.

REGULATION	REQUIREMENT	PROJECT COMPLIANCE	SPECIFY HOW PROJECT WOULD COMPLY/NOT COMPLY OR WHY REGULATION NOT APPLICABLE
Clean Construction Ordinance (San Francisco Environment Code, sections 2504-2506)	For all work performed on a major construction project located in an air pollutant exposure zone, equipment is subject to emission and idling standards. Before beginning on-site construction activities, the contractor must submit a construction emissions minimization plan to the head of the department funding the project for review and approval. After the start of construction activities, the contractor shall maintain quarterly reports at the construction site documenting compliance with the plan. For projects located outside the Air Pollutant Exposure Zone, all contracts for large City projects (longer than 20 days) are required to: • Fuel diesel vehicles with B20 biodiesel, and • Use construction equipment that meet U.S. EPA Tier 2 standards or best available control technologies for equipment over 25 horsepower.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	All SFPUC contracts issued for construction of the BDFP (including the operations, engineering and maintenance buildings) will incorporate the relevant requirements into the contract specifications since project components are located within an Air Pollutant Exposure Zone, which are as follows: • Use construction equipment that meets USEPA Tier 2 standards or higher and retrofitted with the most effective Verified Diesel Emission Control Strategies (VDECS, Level 3 is currently available); • Use alternative sources of power where available and prohibit use of portable diesel engines; • Limit idling of diesel engines to two minutes, except as allowed for in applicable state regulations; and • Maintain and tune construction equipment in accordance with manufacturer specifications.
Bicycle parking, showers, and lockers for city-owned and leased properties (San Francisco Planning Code, sections 155.1-155.4 and CalGreen, section 5.106.4)	Requires bicycle facilities for City-owned and leased properties. Refer to sections 155.2 and 155.3 for requirements by use. Requires bicycle facilities for new and expanded buildings, new dwelling units, change of occupancy, increase of use intensity, and added parking capacity/area. For projects that add 10 or more tenant vehicular spaces, provide short-term and long-term bicycle parking for 5 percent of total motorized parking capacity each, or meet San Francisco Planning Code section 155, whichever is greater. May meet LEED SS 4.2.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Bicycle parking will be provided at the SEP site for use by SEP employees. The number of proposed bicycle parking spaces will be determined later in the design phase, but would be equal to at least five percent of the number of new parking spaces provided at the SEP, in accordance with section 155.2 of the San Francisco Planning Code.

REGULATION	REQUIREMENT	PROJECT COMPLIANCE	SPECIFY HOW PROJECT WOULD COMPLY/NOT COMPLY OR WHY REGULATION NOT APPLICABLE
Tenant Bicycle Parking in Existing Commercial Buildings Ordinance (San Francisco Environment Code, section 402)	The San Francisco Tenant Bicycle Parking in Existing Commercial Buildings Ordinance requires commercial property owners to: • Allow tenants to bring their bicycles to their leased space, or • Provide secure bicycle parking on-site, or • Provide no-cost off-site bike parking access for tenants within 750 feet of the building.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The project does not propose new commercial buildings. Therefore, the requirements of San Francisco Environment Code Section 402 are not applicable to the project.
Transportation Management Programs (San Francisco Planning Code, section 163)	Requires new buildings or additions over a specified size (buildings >25,000 sf or 100,000 sf depending on the use and zoning district) within certain zoning districts to implement a Transportation Management Program and provide on- site transportation management brokerage services for the life of the building.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The project will not add any new residential or office buildings over 25,000 sf within the applicable zoning districts. Therefore, the requirements of San Francisco Planning Code Section 163 are not applicable to the project.
ENERGY EFFICIENCY SECTOR			
Green Building Rating Systems (San Francisco Environment Code, chapter 7, section 704(a)(1)(A))	**Projects of 10,000 gross square feet or more** shall be certified as LEED Gold® and meet additional requirements, as specified in section 704(a)(1)(A), during the conceptual design phase, schematic design phase, all design phases and project closeout.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	The modified project includes approximately 44,000 square feet of new buildings, which include the proposed Operations, Engineering, and Maintenance and Mechanical Maintenance buildings. The Operations, Engineering, and Maintenance building and Mechanical Maintenance building would be certified LEED Gold consistent with this requirement.
Green Building Rating Systems (San Francisco Environment Code, chapter 7, section 704(a)(1)(B))	**Small Projects** do not require LEED certification and LEED credit documentation is not necessary. Instead, the sponsoring City Department, in consultation with a LEED AP With Specialty, shall prepare and submit to the Department a LEED Scorecard for informational and reporting purposes as follows: • At the conclusion of the conceptual design phase, indicating the maximum LEED credits that are practicable for the project, the sponsoring City Department shall integrate the environmental attributes of these LEED credits throughout the design and construction process.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The project is not considered a “small project”. Therefore, the requirements of San Francisco Environment Code Chapter 7 Section 704(a)(1)(B) are not applicable to the project.

REGULATION	REQUIREMENT	PROJECT COMPLIANCE	SPECIFY HOW PROJECT WOULD COMPLY/NOT COMPLY OR WHY REGULATION NOT APPLICABLE
	• Upon receiving a temporary certificate of occupancy or similar indication that the project is substantively complete, indicating all LEED credits that have been or would likely be achieved.		
Energy Optimization (San Francisco Environment Code, chapter 7, section 704(b)(1))	Each Municipal Construction Project is subject to compliance with the following locally required measures: • **Electric Service To City Departments And Facilities** (Administrative Code Section 99.3). • **Better Roofs** (San Francisco Green Building Code Chapter 5, Section 5.201.1.2).	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	The project will meet these requirements, as applicable.
Energy Optimization (San Francisco Environment Code, chapter 7, section 704(b)(2))	**Commissioning.** For each Municipal Construction Project subject to a LEED certification requirement, the LEED Project Administrator shall submit documentation to the Department of Environment verifying that the project achieves the LEED credit Enhanced Commissioning Option 1, Path 2: Enhanced and monitoring-based commissioning.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	The project will meet these requirements, as applicable.
Energy Optimization (San Francisco Environment Code, chapter 7, section 704(b)(3))	**All-Electric Building.** Each New Construction or Major Renovation that includes HVAC system replacement shall be All-Electric, except as follows: • Natural Gas or propane service and plumbing may be installed if necessary for processes or features separate from the operation of systems integral to Building functions, such as vehicle fueling and mechanic shop equipment. • Existing equipment that uses Natural Gas and serves the project area, but is outside the scope of the project, may be retained. Projects which both (i) are served by existing equipment that use Natural Gas and are outside the scope of work, and (ii) include upgrade to electric service in the project scope of work, are encouraged to include sufficient electrical service capacity to, in the future, replace existing systems that use Natural Gas with All-Electric systems.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	The project would use R-410A in the variable refrigerant volume system for the HVAC units in project process treatment facilities. SEP 914 and SEP 603 would be served by an upgraded electrical transformer, three new electric boilers and an electric chiller. SEP 930 and 940, existing buildings which are served by gas boilers and chiller, would be served by two smaller, more efficient gas boilers. The modified project includes replacement of the existing 500 kilo volt amperes (kVA) emergency backup generator with two new 750 kVA generators. The two new generators would be fossil fuel powered but have Tier 3 control technology.

REGULATION	REQUIREMENT	PROJECT COMPLIANCE	SPECIFY HOW PROJECT WOULD COMPLY/NOT COMPLY OR WHY REGULATION NOT APPLICABLE
	• Emergency backup electricity generation systems may use any combination of technologies permitted under applicable law, including combustion of fossil fuels. Zero-emissions emergency backup electricity systems are encouraged, such as onsite batteries that store electricity from onsite solar photovoltaics.		
Energy Optimization (San Francisco Environment Code, chapter 7, section 704(b)(4))	**Electrification of Existing Building Systems.** • Each City Department shall conduct an inventory of gas-using equipment in their managed Buildings using a template provided by the Director, and upload the inventory results to the City and County of San Francisco's online data catalog no later than December 31, 2023. • Where a gas-using equipment or system integral to building functions is removed from a Building other than a hospital and/or new equipment is required for a Municipal Construction Project, electric equipment or system must be installed, and: o If new equipment can be supported by existing electric service capacity, no upgrade to electric service infrastructure is required by this subsection 704(b). o If new equipment requires an increase from existing electric service capacity, the upgraded electric service infrastructure must be sufficient to accommodate the new equipment, future replacement, and electrification of the Building's remaining gas-using equipment.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	The project will meet these requirements.
Energy Optimization (San Francisco Environment Code, chapter 7, section 704(b)(5))	**Energy Resilience.** This provision shall apply to any Municipal Construction Project for which the initial appropriation request, either whole or partial, is submitted to the Board of Supervisors after the effective date of the ordinance in Board File No. 221223, enacting this Chapter 7 and repealing an earlier version of Chapter 7.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	The modified project would replace the existing boiler and chiller and would include electrical system improvements and new photovoltaic arrays. The current design includes battery storage at both new buildings.

REGULATION	REQUIREMENT	PROJECT COMPLIANCE	SPECIFY HOW PROJECT WOULD COMPLY/NOT COMPLY OR WHY REGULATION NOT APPLICABLE
	• **Critical Community Institution:** For New Construction and Major Renovation that includes HVAC system replacement and electrical system upgrade: o Calculate the battery storage capacity and photovoltaic array size sufficient to ensure ongoing operation of the Building's Tier 1 Emergency Loads to be met by battery storage and solar resources in the event of disaster or other disruption to electrical power, using a typical operational 3-day cycle in March as a basis of design; and o Install battery storage and photovoltaics consistent with daily ongoing delivery of Tier 1 Emergency Loads and functions specified in Section 704(b)(5)(A)(i). • **All other Buildings:** For New Construction and Major Renovation, other than at Critical Community Institutions, that includes HVAC system replacement and electrical system upgrade, comply with at least one of the following: o Battery storage and photovoltaics sufficient to sustain ongoing Tier 1 Emergency Loads as specified in Section 704(b)(5)(A)(i); OR o Annual site zero net energy; OR o Design energy use intensity (EUI) 50% better than the national median site EUI; OR o For a Building with process loads that are at least 50% of the Building's total energy use, exceed requirements of ASHRAE 90.1-2019 by 10%.		
WASTE REDUCTION SECTOR			
Responsible Production and Consumption (San Francisco Environment Code, chapter 7, section 704(c)(1),	**Building Material Management.** • Each Municipal Construction Project located within the nine counties surrounding the San Francisco Bay must comply with the **Construction and Demolition Debris Recovery Ordinance** (No. 27-06) and Environment Code Chapter 14.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	The project construction contracts will include these requirements.

REGULATION	REQUIREMENT	PROJECT COMPLIANCE	SPECIFY HOW PROJECT WOULD COMPLY/NOT COMPLY OR WHY REGULATION NOT APPLICABLE
chapter 14, section 1402, and chapter 19)	• For each Municipal Construction Project, the contract between the City Department and the Contractor shall require the Contractor responsible for construction and/or demolition (C&D) debris management to: o Conduct a site assessment to estimate the types of material discards that will be generated during the project, including packaging and/or shipping materials. o Write and implement a Material Reduction and Recovery Plan (MRRP) in accordance with regulations promulgated under this Chapter 7 to guide onsite material management procedures for waste prevention and material reuse and recycling. o At a minimum, source-separate for reuse or recycling concrete, metal, clean solid wood, clean and unpainted drywall, and carpet and carpet padding. Other C&D debris must either be source-separated or placed in a C&D debris box for transport to a registered facility to maximize material recovery. The Director may adjust the materials to be source-separated by regulation under Section 702(b)(2) based on the Director's assessment of infrastructure and markets available. o If needed, maintain dedicated separate bins for recyclable, compostable, and trash materials as required by Environment Code Chapter 19 **Mandatory Recycling and Composting**. • For each Tenant Improvement subject to a LEED certification requirement, the LEED Project Administrator shall submit documentation verifying that the project achieves the Interior Design + Construction – Commercial Interiors LEED credit Construction and Demolition Waste Management Option 2: Waste Prevention (1 point).		

REGULATION	REQUIREMENT	PROJECT COMPLIANCE	SPECIFY HOW PROJECT WOULD COMPLY/NOT COMPLY OR WHY REGULATION NOT APPLICABLE
Responsible Production and Consumption (San Francisco Environment Code, chapter 7, section 704(c)(2))	**Material Reuse.** City Departments are encouraged to prioritize source reduction and onsite reuse through whatever means practicable. To the extent permitted by law, City Departments shall list in the Virtual Warehouse all unwanted furniture, fixtures, equipment, computers, and supplies purchased with City and County of San Francisco funds. Before buying any new furniture, fixtures, equipment, computers, or supplies, City Departments shall check the Virtual Warehouse for available items that meet their needs.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	The SFPUC will check the Virtual Warehouse before buying any new furniture or equipment in accordance with these requirements.
Responsible Production and Consumption (San Francisco Environment Code, chapter 7, section 704(c)(3), and chapter 19)	**Material Recovery.** City Departments shall ensure that all City-Owned Properties and City Leaseholds have adequate, accessible, and convenient areas for the collection, storage, and loading of 100% of recyclable, compostable, and refuse materials. Design and/or construction contract documents shall incorporate requirements of Environment Code Chapter 19 **Mandatory Recycling and Composting** City Departments shall ensure that the designed and designated areas are sufficient to accommodate containers consistent with both current methods and projected needs when zero waste goals are met, as well as allow for easy access by a collector's vehicle. • City Departments are required to recycle used fluorescent and other mercury-containing lamps, batteries, and universal waste as defined by California Code of Regulations Section 66261.9.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	The project will meet these requirements.
Responsible Production and Consumption (San Francisco Environment Code, chapter 7, section 704(c)(4))	**Embodied Carbon.** • Each Municipal Construction Project of 10,000 gross square feet or more shall submit to the Department an embodied carbon reduction strategies checklist on a form provided by the Director for informational and reporting purposes as follows: o At the conclusion of the schematic design phase, as an assessment of the maximum embodied carbon reduction strategies that are practicable for the project. The sponsoring City Department shall prioritize	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	The project will implement these requirements for the design of the Operations, Engineering, and Maintenance building and Mechanical Maintenance building, given the criteria of 10,000 gross square feet and the nature of the project as a municipal construction. The Operations, Engineering, and Maintenance building and Mechanical Maintenance building would be certified LEED Gold consistent with these requirements. SFPUC would complete carbon reduction strategies checklist during subsequent project design.

REGULATION	REQUIREMENT	PROJECT COMPLIANCE	SPECIFY HOW PROJECT WOULD COMPLY/NOT COMPLY OR WHY REGULATION NOT APPLICABLE
	the integration of these strategies throughout the design and construction process. o Upon receiving a temporary certificate of occupancy or similar indication that the project is substantively complete, explaining the embodied carbon reduction strategies that have been successfully integrated into the design and/or construction process. • For each New Construction or Major Renovation subject to a LEED certification requirement, the LEED Project Administrator shall submit documentation verifying that the project achieves the LEED credit Building Life-Cycle Impact Reduction Option 2: Whole-Building Life-Cycle Assessment, Path 3 by addressing at least three product categories or building assembly types. For each Tenant Improvement subject to a LEED certification requirement, the LEED Project Administrator shall submit documentation verifying that the project achieves the LEED credit Interiors Life-Cycle Impact Reduction Option 1: Interior Furniture and Nonstructural Elements Reuse (1 point) or Option 3: Building Interiors Life Cycle Assessment (2 points). • For each Municipal Construction Project subject to a LEED certification requirement, the LEED Project Administrator shall submit documentation verifying that the project achieves the LEED credit Environmental Product Declarations (1 point).		
Resource Conservation Ordinance (San Francisco Environment Code, chapter 5, section 3 & Executive Directive 08-02)	This ordinance establishes a goal for each City department to (i) maximize purchases of recycled products and (ii) divert from disposal as much solid waste as possible and appoint at least one person responsible for compliance with the chapter. Each City department shall prepare a waste assessment annually. The ordinance requires janitorial contracts to consolidate Recyclable materials for pick up. Lastly, the ordinance requires departments to specify the purchase of 30 percent post-consumer recycled content for all paper products except copier and bond paper.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	The project will meet these requirements. SFPUC includes the ordinance requirements in their construction contract specifications.

REGULATION	REQUIREMENT	PROJECT COMPLIANCE	SPECIFY HOW PROJECT WOULD COMPLY/NOT COMPLY OR WHY REGULATION NOT APPLICABLE
Resource Conservation Ordinance: : Non-PVC Plastics (San Francisco Environment Code, chapter 5, section 9)	This ordinance requires non-PVC plastics to be specified in city purchasing and construction projects.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	The project will meet these requirements. SFPUC includes the ordinance requirements in their construction contract specifications.
Preference for Local Manufacturers and Industry/Recycled Content Materials Ordinance (San Francisco Administrative Code, section 6.4)	Ordinance requires the use of recycled content material in public works projects to the maximum extent feasible and gives preference to local manufacturers and industry.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	The SFPUC will comply with this ordinance, which requires utilization of recycled content materials, rather than virgin materials, to the maximum extent feasible.
Bottled and Package Free Water Ordinance (San Francisco Environment Code, chapter 24, section 5)	No City officer, department, or agency shall use City funds to purchase bottled water for its own general use. A department may use City funds to purchase bottled water for uses specifically exempted from or allowed under chapter 24. It shall be City policy not to have drinking water systems in City offices or facilities that use plastic water bottles of any size where satisfactory alternatives exist and are feasible at the location under consideration.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	The SFPUC implements these requirements.
Food Service and Packaging Waste Reduction Ordinance (San Francisco Environment Code, chapter 16, section 3)	City Departments (city contractors, lessees, and food providers) may not purchase, acquire, or use food service ware if (1) the food service ware is made, in whole or in part, from polystyrene foam, or if (2) the food service ware is not compostable or recyclable, and (3) where the food service ware is compostable and not fluorinated chemical free. In addition, they shall not purchase or acquire, any single-use straws, stirrers, splash sticks, cocktail sticks, or toothpicks made with plastic, including compostable, bio- or plant-based plastic, except as expressly provided in this Chapter 16 and/or as required by applicable State or federal laws, regulations, or guidelines.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	The SFPUC implements these requirements

REGULATION	REQUIREMENT	PROJECT COMPLIANCE	SPECIFY HOW PROJECT WOULD COMPLY/NOT COMPLY OR WHY REGULATION NOT APPLICABLE
ENVIRONMENT/CONSERVATION SECTOR			
Street Tree Planting Requirements (San Francisco Public Works Code, Article 16, section 806(d) and San Francisco Planning Code, section 138.1)	Public Works Code section 806(d) requires projects that include new construction, significant alterations, new curb cuts, a new garage, or new dwelling units to plant a 24-inch box tree for every 20 feet along the property street frontage. Any street trees removed without obtaining a permit, must be replaced by street trees that are equal or greater than the total diameter of the street trees removed.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Removal and replacement of any street trees along Jerrold Avenue (publicly accessible right-of-way) will be conducted consistent with Public Works Code section 806(d), which requires planting of a minimum of one 24-inch box tree for every 20 feet of property street frontage. This requirement does not apply to trees within the SEP which is a non-DPW public right-of-way.
Human and Environmental Health (San Francisco Environment Code, chapter 7, section 704(d)(2))	**Toxics Reduction and Pollution Prevention.** • For each Municipal Construction Project subject to a LEED certification requirement, the LEED Project Administrator shall submit documentation verifying that the project achieves the LEED credit Building Product Disclosure and Optimization – Material Ingredients (1 point) using reporting methodologies that inventory content of a product's homogeneous materials to at least 1,000 ppm. • For all Municipal Construction Projects and for purchases made by or on behalf of City Departments for these projects, product categories including but not limited to furniture, countertops, door hardware, paints, ceilings, and flooring shall comply with regulations promulgated under this Chapter 7 pertaining to the following attributes, subject to verification by the Department of the Environment: o Added flame retardant chemicals; o Antimicrobial chemicals; o Fluorinated chemicals; o Volatile organic compounds (VOCs) content or emissions. o Polyvinyl chloride (PVC) content; o Recycled content and recyclability; o Sustainably grown and harvested wood; and	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	The project will implement this requirement for the Operations, Engineering, and Maintenance building and Mechanical Maintenance building.

REGULATION	REQUIREMENT	PROJECT COMPLIANCE	SPECIFY HOW PROJECT WOULD COMPLY/NOT COMPLY OR WHY REGULATION NOT APPLICABLE
	o Other environmental attributes, consistent with this Chapter.		
Construction Site Runoff Ordinance (Public Works Code, section 146)	Municipal construction projects that involve land-disturbing activities on 5,000 or more square feet of ground surface must implement construction site run-off best management practices in compliance with the Construction Site Runoff Ordinance (See Public Works Code section 146).	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	The SFPUC will develop and implement an erosion control plan in accordance with Article 4.2 of the San Francisco Public Works Code, Section 146, and construction activities will include pollution prevention and stormwater controls.
San Francisco Stormwater Management Ordinance (Public Works Code, article 4.2, section 147)	All projects creating or replacing impervious surface of 5,000 square feet or more in combined or separate sewer areas must manage stormwater on-site using low impact design. Projects must comply with the Stormwater Management Ordinance, including SFPUC Stormwater Design Guidelines, and implement Post Construction Stormwater Controls and prepare a Stormwater Control Plan. All projects creating or replacing impervious surface of between 2,500 and 5,000 square feet in separate sewer areas must implement Post Construction Stormwater Controls.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Drainage for the project will be designed in accordance with the SFPUC Article 4.2 of the San Francisco Public Works Code, Section 147, and the SFPUC's Stormwater Design Guidelines to the extent feasible.
Indoor Water Use Reduction (Green Building Code, Section 5.103.1.2)	For each Municipal Construction Project subject to a LEED certification requirement, the LEED Project Administrator shall submit documentation verifying that the project achieves the LEED credit Indoor Water Use Reduction (30% reduction minimum).	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	The project will implement this requirement for the Operations, Engineering, and Maintenance building and Mechanical Maintenance building.
Water Efficient Irrigation Ordinance (Administrative Code Chapter 63)	All public agency landscape rehabilitation projects, with a modified landscape area equal to or greater than 1,000 square feet and less than 2,500 square feet, shall comply with Chapter 63 and the rules and regulations adopted by the Public Utilities Commission. All public agency new construction landscape projects with a landscape area equal to or greater than 500 square feet; landscape rehabilitation projects with a modified landscape area equal to or greater than 2,500 square feet; or a project under Tier 1 with a turf limitation exceeding 25% of the	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	The modified project includes vegetated areas exceeding a total of 1,000 square feet and therefore qualifies as a landscape rehabilitation project. Low water use plants will be specified and the irrigation design will comply with Chapter 63.

REGULATION	REQUIREMENT	PROJECT COMPLIANCE	SPECIFY HOW PROJECT WOULD COMPLY/NOT COMPLY OR WHY REGULATION NOT APPLICABLE
	landscape area, shall comply with Chapter 63 and the rules and regulations adopted by the Public Utilities Commission.		
Water Conservation (San Francisco Environment Code, chapter 7, section 704(e))	A Municipal Construction Project located outside of the City and County of San Francisco may be subject to the following locally required measures if the project is not mandated by the local agency having jurisdiction to meet equivalent requirements: • **Construction Site Runoff Ordinance** (Public Works Code Sections 146-146.11). • **Stormwater Management Ordinance** (Public Works Code Sections 147-147.6). • **Indoor Water Use Reduction.** (Green Building Code, Section 5.103.1.2). For each Municipal Construction Project subject to a LEED certification requirement, the LEED Project Administrator shall submit documentation verifying that the project achieves the LEED credit Indoor Water Use Reduction (30% reduction minimum). • **Water Efficient Irrigation Ordinance** (Administrative Code Chapter 63).	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The project would only include ground disturbance in San Francisco and would not be required to meet these requirements.
Human and Environmental Health (San Francisco Environment Code, chapter 7, section 704(d)(1))	**Indoor Air Quality.** For each Municipal Construction Project subject to a LEED certification requirement, the LEED Project Administrator shall submit documentation verifying that the project achieves the following LEED credits: • Enhanced Indoor Air Quality Strategies (1 point); • Low-Emitting Materials (5 product categories); • Construction Indoor Air Quality Management Plan (1 point); and • Indoor Air Quality Assessment Option 2: Air Testing (2 points).	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	The project will implement this requirement for the Operations, Engineering, and Maintenance building and Mechanical Maintenance building.

REGULATION	REQUIREMENT	PROJECT COMPLIANCE	SPECIFY HOW PROJECT WOULD COMPLY/NOT COMPLY OR WHY REGULATION NOT APPLICABLE
Environmentally Preferable Purchasing Ordinance (San Francisco Environment Code, chapter 2, section 3)	For certain common product categories, the ordinance mandates that City Departments purchase only products listed as "required" on the SFApproved.org website, which is maintained by the Department of the Environment. The items on the SFApproved.org website meet the most rigorous standards for protecting our health and environment.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Some of the products that would be needed for the project fall under the Approved Green Products List product categories, including (but not limited to): building materials, fuel, landscaping products, lighting, and paint and lacquer thinner. These products would be utilized during the project construction phase; therefore, contract specifications will include the requirement to use products from the Approved Green Products List when feasible. Any applicable products from the Approved Green Products List needed for conducting operations and maintenance activities will be utilized by SFPUC staff when feasible.
Tropical Hardwood and Virgin Redwood Ban (San Francisco Environment Code, chapter 8, section 3)	The ordinance prohibits City departments from procuring or engaging in contracts that would use the ordinance-listed tropical hardwoods and virgin redwood.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	All contracts associated with construction of the project will prohibit the utilization of the ordinance-listed tropical hardwoods and virgin redwood
Wood Burning Rule (Bay Area Air District Regulation 6, Rule 3 Rule 3: Wood-Burning Devices)	Bans the construction of wood-burning devices in new buildings constructed in the Bay Area since November 1, 2016. Gas-fueled fireplaces and logs, gas inserts, and electrical fireplaces are okay.	☐ Project Complies ☒ Not Applicable ☐ Project Does Not Comply	The project will not include the installation of fireplaces, wood burning or otherwise.
Arsenic-Treated Wood Ordinance (San Francisco Environment Code, chapter 13, section 3)	For City departments, prohibits the use of arsenic-treated wood for most applications, with the exception of seawater immersion. Details can be found at SFApproved.org/wood.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	Construction of the project will not use arsenic-treated wood.
Human and Environmental Health (San Francisco Environment Code, chapter 7, section 704(d)(3))	**Biodiversity and Wildlife Habitat.** Each Municipal Construction Project shall follow the City and County of San Francisco's Biodiversity Guidelines.	☒ Project Complies ☐ Not Applicable ☐ Project Does Not Comply	The project will adhere to the City's Better Roof Ordinance, the Stormwater Management Ordinance, the City's Integrated Pest Management program, and the Bird-Safe Building Ordinance. The project will utilize wildlife-friendly lighting, including downward-facing lights to reduce light pollution.

C. DETERMINATION OF COMPLIANCE WITH CITY'S GHG REDUCTION STRATEGY (TO BE FILLED OUT BY ENVIRONMENTAL PLANNING STAFF)

☒ Project Complies with San Francisco's *Strategies to Address Greenhouse Gas Emissions*

Project Notes:

☐ Project Does Not Comply

If Project does not comply, provide discussion of non-compliant features:

Planner Name: Timothy Johnston Date of Determination: 11/26/2024