

SFPUC Southeast Treatment Plant 2024-2025 Construction Updates Frequently Asked Questions

Project Status - Summer 2024

Work continues at the Southeast Treatment Plant (SEP or plant) to modernize our outdated critical wastewater facilities, including the following current and future projects:

- **The Biosolids Digester Facilities Project** (BDFP) is under construction to replace the outdated existing solids treatment facilities at plant with new facilities that will look better, smell better, and work better, while maximizing the sustainable reuse of the biosolids and digester gas (or biogas) byproducts produced by the wastewater treatment process. As discussed below, the BDFP has been modified to convert the generated biogas into renewable natural gas for reuse (biogas utilization system).
- **The New Headworks Facility Project** is nearing construction completion. This critical facility handles 80% of the City's combined stormwater and wastewater, removing items that initially enter the plant to protect downstream equipment, reducing odors, and ensuring the plant operates efficiently. Construction is expected to be completed in Winter 2024 and the sidewalk and streetscape improvements along Evans Avenue between Phelps and Rankin Streets completed in Spring 2025.
- **Future construction projects in the Bayview** are being planned to further modernize SFPUC facilities, including construction of a new headquarters for Water Enterprise's City Distribution Division staff at 2000 Marin Street and new and maintenance facilities for Wastewater Enterprise staff along Jerrold Avenue and Phelps Street.
- **Longer-term**, SFPUC is planning for a \$1.5 billion **Mainstream Nutrient Reduction Project** to substantially reduce nutrients in the wastewater stream. SFPUC is working closely with our partners on long-term strategies to meet potential nitrogen removal requirements as research and regulations evolve.
- **Other area projects in the area** include the **Islais Creek Bridge Rehabilitation Project** and **Cesar Chavez paving** led by San Francisco Public Works, the **SF Produce Market Revitalization**, along with other public and private plans in development, and coordination is ongoing.

Frequently Asked Questions: Biosolids Digester Facilities Project Modification – Biogas Utilization System

Q: WHAT IS THE BIOGAS UTILIZATION SYSTEM?

A: Biogas is a byproduct of the biosolids digestion treatment process. Beneficially reusing 100% of the biogas is a main BDFP objective to enhance sustainability and reliability. The biogas utilization system will convert the biogas to renewable natural gas for injection into PG&E's existing gas pipeline for beneficial downstream uses (e.g., vehicular fuel, etc.). The system includes, but is not limited to, new facilities for biogas cleaning and separation (upgrading it to renewable natural gas), gas compressors (for injection of the renewable natural gas into PG&E's existing gas pipeline), and a thermal oxidizer abatement device (to remove methane from the system's tail gas byproduct before it is released to the atmosphere).

Q: HOW DOES THE BIOGAS UTILIZATION SYSTEM CHANGE THE ORIGINALLY PLANNED PROJECT?

A: The Biosolids Facilities Project originally included an energy recovery system in which new facilities, including boilers and a turbine generator, would have converted the biogas into heat, steam, and electricity to help power the new biosolids facilities. Now, the biogas utilization system will convert the biogas to renewable natural gas for injection into PG&E's existing gas pipeline, while the boilers at the steam generation facility will generate the heat and steam needed for the solids pre-treatment process and electricity will come from SFPUC's clean hydropower.

Q. WHY DID THE SFPUC MAKE THIS CHANGE?

A: During a cost reduction and value engineering effort, SFPUC identified the high cost of the energy recovery facilities and began to explore other reuses of the biogas. Converting the biogas to renewable natural gas reduces the cost of constructing and operating the BDFP while generating a source of renewable energy. The biogas as renewable natural gas has its highest economic value as a vehicular fuel. Furthermore, it replaces raw natural gas, a fossil fuel that contributes to climate change.

Q: WHAT COMMUNITY ENGAGEMENT HAS BEEN DONE AROUND THE BIOGAS UTILIZATION PROJECT AND HOW CAN I LEARN MORE?

A: Updates to the BDFP have been shared on a regular and ongoing basis since start of construction. In spring 2023, the SFPUC presented about the biogas utilization system at a joint meeting of the Southeast Community Center and SFPUC Citizens Advisory Committee. Updates have been shared through emailed construction updates and included in project materials. For future updates, we encourage signing up for our regular eNewsletter at sfpuc.gov/SEPConstruction.

Q: WHAT ARE THE OVERALL ENVIRONMENTAL IMPACTS OF THIS CHANGE?

A: Environmental impacts of this change to the biogas utilization system were evaluated by the San Francisco Planning Department. The Planning Department is responsible for conducting environmental review of projects in San Francisco pursuant to the California Environmental Quality Act and San Francisco Administrative Code Chapter 31. The Addendum to the Environmental Impact Report looks at over a dozen environmental topics, including air quality, noise, traffic, and biological and cultural resources. The Planning Department determined that this change would not cause new significant impacts, would not substantially increase the severity of the previously identified environmental impacts, and would not require new mitigation measures. In sum, with the biogas utilization system and associated changes in steam and electricity sources, the overall BDFP will have similar impacts as compared to the original project with the energy recovery facilities. The EIR Addendum is available at: sfplanning.org/environmental-review-documents.

Q: SPECIFICALLY, WHAT ARE THE ANTICIPATED AIR QUALITY IMPACTS OF THIS CHANGE?

A: The biogas utilization system will have fewer and smaller facilities overall than the originally approved energy recovery system. As a result, there will be less excavation, drilling, trucking, building erection, and overall construction activities thereby reducing criteria air pollutant (reactive organic gas [ROG], nitrogen oxides [NOx], particulate matter [PM10, and PM2.5]) emissions and associated health risks from construction. During future operation of the plant, this approach will reduce NOx emissions, but increase ROG, PM10 and PM2.5 emissions. However, future operational ROG emissions will still decrease compared to the plant's current emissions (i.e., be an improvement) and PM10 and PM2.5 emissions and associated health risks will still be below regulatory thresholds.¹ Sources of operational PM2.5 emissions include the steam boilers, waste gas burners (flares), emergency backup diesel generator, and the thermal oxidizer component of the biogas utilization system. (Please see Section 5.1, Tables 6 - 9 in the EIR Addendum for more detail: sfplanning.org/environmental-review-documents).

Q. HOW WILL THE SFPUC ADDRESS AIR QUALITY IMPACTS?

A: Although some air quality impacts will increase, all impacts will be below regulatory thresholds such that SFPUC is not required to further reduce impacts. However, apart from these standards, through the 2017 [BDFP Environment Justice Analysis Report](#) (BDFP EJ Report), SFPUC committed to going above and beyond regulatory standards to mitigate operational PM2.5 emissions. Specifically, SFPUC committed to not allowing the plant's operational PM2.5 emissions to increase above what they would be if the BDFP were not constructed (i.e., if the plant just continued to operate as usual). The projected increase in operational PM2.5 emissions without the BDFP is 3.0 tons/year. The SFPUC remains fully dedicated to this commitment.

¹ Regulatory thresholds established in the Environmental Impact Report based on Bay Area Air Quality Management District standards.

Accordingly, as described in the BDFP EJ Report, after BDFP construction, SFPUC will monitor operational PM 2.5 emissions and implement offsets for emissions over 3.0 tons/year. The original BDFP project had estimated operational PM2.5 emissions of 4.6 tons/year whereas with the biogas utilization system and associated changes, operational PM2.5 emissions may range from 4.67-5.5 tons/year.² Based on this estimate, SFPUC anticipates providing offsets of up to 2.5 tons/year to meet our EJ commitments per the BDFP EJ Report.

The BDFP EJ Report refers to monitoring emissions at the turbine associated with the energy recovery system, but since those facilities will no longer be built, SPUC is reevaluating and developing the monitoring approach with the biogas utilization system facilities. It is important to note that the air quality impact analysis in the EIR Addendum is based on the worst-case operating scenario of the biogas utilization system, resulting in estimates of the highest emissions and health risk impacts. Nevertheless, even under this worst-case scenario, emissions and health risks from construction and operation will be below regulatory thresholds. Please also see our previously published [air quality mitigation fact sheet](#).

Q: WHAT ARE OPTIONS FOR OFFSETTING PM2.5 EMISSIONS?

A: Options to offset the BDFP's operational PM2.5 emissions are still being evaluated and developed. The amount of offsets ultimately needed will be informed by the monitoring of actual PM 2.5 emissions once all the new BDFP facilities, including the biogas utilization system, are constructed. General approaches to reducing PM2.5 emissions include reducing diesel truck pollution and car trips, promoting cleaner industry in the surrounding area, and replacing wood burning fireplaces. The BDFP EJ Report recommends reducing construction vehicle exhaust, planting trees and gardens in the neighborhood around the BDFP and expanding the electric vehicle charging station network in District 10 as approaches to helping address air quality impacts from PM 2.5 emissions. The SFPUC seeks to engage with air quality agencies, Bayview community organizations and residents, and other stakeholders to develop PM2.5 offset options, evaluate their feasibility, and pursue implementation in alignment with the commitments set forth in the BDFP EJ Report.

Q: WHAT IS THE COMMUNITY AIR QUALITY MONITORING NETWORK AT THE SOUTHEAST COMMUNITY CENTER?

A: In the [BDFP EJ Report](#), a recommendation was to partner with the community to monitor ambient air quality at the Southeast Community Center. SFPUC is currently partnering with three organizations to install air quality monitors and collect data from the rooftop of Southeast Community Center:

- Greenaction for Health and Environmental Justice: data to be available on [IVAN](#)
- Manylabs: data available on [Purple Air](#)
- UC Berkeley: data available on [BEACO₂N](#)

² There is a range because the final design of the biogas utilization system is still underway. The upper end of the range represents the worst-case operating scenario. SFPUC estimates that emissions will be in the lower end of the range.

The air quality monitors at the Southeast Community Center provide one data point on the respective air quality monitor networks of the organizations above, which together help provide insight and contribute to a more complete picture of air quality in the San Francisco Bay Area.

Frequently Asked Questions: Future Bayview Construction Projects

Q: WHAT OTHER SFPUC PROJECTS ARE PLANNED AT THE SOUTHEAST TREATMENT PLANT AND IN THE BAYVIEW?

A: SFPUC is planning additional upgrades at the plant, including new maintenance, operations, and office buildings for Wastewater staff. Facilities would be within the plant. SFPUC is also planning a new headquarters for the Water Enterprise Division, City Distribution Division at 2000 Marin Street. Environmental review of these projects is underway. Construction is expected to start within the year.

Q: WHAT OTHER NON-SFPUC CONSTRUCTION PROJECTS ARE EXPECTED TO TAKE PLACE IN THE BAYVIEW?

A: Many projects and investments are underway or planned in the coming years. We are staying in communication with the SF Produce Market about their upcoming facility upgrades and SF Public Works regarding their Islais Creek Bridge Rehabilitation Project. We also coordinate with the SF Planning Department, which evaluates projects overall and assists with planning to reduce cumulative impacts to the neighborhood.

Q: WHEN WILL BDFP CONSTRUCTION BE COMPLETE AND WHAT'S THE STATUS OF JERROLD AVENUE?

A: To ensure worker and public safety, Jerrold Avenue was closed between Rankin and Phelps Streets for major construction activities. While we initially expected the closure to last for five years, we now anticipate a longer closure to allow for the quick and efficient completion of heavy construction activities at the plant, including the new maintenance buildings along Jerrold Avenue. Additionally, the SF Produce Market is coordinating with the City and County of San Francisco to close Jerrold Avenue through the Market once their major upgrade is complete. Discussions are underway to determine what the future condition of Jerrold Avenue will be, including the timing for completing upgrades to Innes and Kirkwood to allow for traffic around the SF Produce Market.