



SEWER SYSTEM IMPROVEMENT PROGRAM | Grey. Green. Clean.

San Francisco's Wastewater Treatment Facilities

Serving over 800,000 customers, the San Francisco Public Utilities Commission (SFPUC) owns and operates San Francisco's combined sewer system, which collects and treats both sewage and stormwater runoff.

On a typical day, a vast network of pipes creates a "city under the City" that transports and delivers San Francisco's wastewater to one of our two local treatment plants: the Southeast Treatment Plant or the Oceanside Treatment Plant. During a storm North Point Wet-Weather Facility is activated to treat additional flow. Each treatment facility plays an integral role in handling and treating the City's flows before being discharged into the San Francisco Bay or the Pacific Ocean.

Stormwater enters the combined sewer system through the thousands of catch basins along the street. Since most of San Francisco is paved over, the rainwater that falls from the skies usually ends up in our sewers. Each non-rainy day an average of 80 million gallons of wastewater is collected and transported to one of the two treatment plants. When it rains, our wastewater system can collect and treat up to 575 million gallons a day (MGD).

OUR COMBINED SEWER SYSTEM

3
Treatment Facilities

1,000+
Miles of Pipes

80
Million Gallons
Treated Non-Rainy Day

575
Million Gallons
Treated Rainy Day

40
Billion Gallons
Treated Annually

GET INVOLVED!

We offer **free** bike and walking tours of our wastewater treatment plants and green infrastructure projects. Visit our website for upcoming tours and more info about the SSIP upgrades. sfwater.org/ssip

North Point Wet Weather Facility



- Built in 1951
- Only active during wet weather
- Treats up to 150 MGD during rain storms
- Located at Bay Street and The Embarcadero

Oceanside Treatment Plant



- Built in 1993
- Receives 20% of the City's flows
- Treats 15 MGD and up to 175 MGD during rain storms
- Located off the Great Highway between Lake Merced and San Francisco Zoo

Southeast Treatment Plant



- Built in 1952
- Receives 80% of the City's flows
- Treats 60 MGD and up to 250 MGD during rain storms
- Located on Phelps Street near Third and Evans streets in the Bayview District



ABOUT THE SSIP: The SSIP is a 20-year citywide investment to upgrade our aging sewer system and provide a more reliable, sustainable, and seismically safe sewer system now and for future generations. The Commission authorized \$2.7 billion of Phase I Improvement in August 2012.



North Point Wet-Weather Facility

Located near Fisherman’s Wharf on Bay Street, the North Point Wet-Weather Facility (NPF) is the City’s oldest facility and was the main treatment facility until 1983. As part of the 1972 Clean Water Act upgrades, the NPF was converted to an only wet-weather treatment facility. This facility provides pretreatment and primary treatment with disinfection of wastewater collected in the northeast part of the City. The NPF operates when the Southeast Treatment Plant approaches capacity, approximately 250 million gallons per day (MGD). As the exclusive wet-weather treatment facility dedicated to reducing the rain’s impact on the City’s system, it is vital that NPF and associated facilities maintain reliable and safe operation.

Needed Plant Improvements Underway

Built in 1951, the NPF is functioning with outdated equipment which impacts the operational reliability of the City’s system. The SSIP will address this aging infrastructure to ensure the NPF continues to serve San Francisco’s wastewater needs. SSIP upgrades to the NPF include:

- Redundant wet weather pumps
- Clarifier structural and seismic improvements
- Disinfection efficiency upgrade
- Outfall rehabilitation

The SSIP’s infrastructure improvements will ensure that the North Point Facility, North Shore Pump Station, and North Point Outfalls will remain operationally compliant with State and Federal regulatory requirements to protect public health and the environment. The improved facilities will be more reliable by using the latest technology and trends in wastewater treatment.

NPF AT A GLANCE

- Built in 1951
- Treats wastewater only during wet weather
- Capacity up to 150 MGD during rainstorms
- Located at the intersection of Bay Street and The Embarcadero

PROJECT BENEFITS

- Ensured regulatory compliance
- Operational reliability and efficiency
- Effective odor control
- Seismic improvements
- Upgraded equipment and technology
- Redundancy for critical functions
- Minimized neighborhood impacts





Oceanside Treatment Plant

Located on the Great Highway between the San Francisco Zoo and Lake Merced, the Oceanside Water Pollution Control Treatment Plant (OSP) is one of a few plants in the United States built largely underground. The OSP is San Francisco's youngest wastewater facility providing all-weather wastewater treatment of flows from the Westside of the City, which ranges from the Presidio to Lake Merced. On an average day, the plant can treat 15 million gallons per day (MGD); during rain storms, the wet-weather treatment capacity is 175 MGD, which includes an outfall that discharges 4 miles into the ocean.

Needed Plant Improvements Underway

Although the OSP is the most recently constructed of the City's three treatment facilities, the harsh marine environment surrounding the facility makes it vulnerable to accelerated corrosion. The facilities require replacement or upgrades to maintain efficient operation and seismic reliability and to extend the useful life of the equipment. In addition, the plant must undergo other performance upgrades to ensure reliable and safe operation during all weather conditions. Through the SSIP, upgrades to the OSP include:

- Improved grit (sand) removal during pre-treatment
- Upgraded electrical and instrumentation systems
- Enhanced corrosion control
- Replacement of gas handling facilities
- Structural and seismic improvements

These infrastructure improvements focus on increasing system reliability by replacing equipment and utilizing the latest technology to make the treatment process more efficient. OSP facilities will be seismically upgraded and systems will be brought up to current standards that protect public health and the environment. The treatment plants will also have major odor control upgrades, which will reduce negative impacts to the surrounding community.

OSP AT A GLANCE

- Built in 1993
- Treats 20% of the City's flows
- On average treats 15 MGD of wastewater and up to 175 MGD during rain storms
- Treated water is released into the Pacific Ocean through a deep ocean outfall
- 12 acres with 70% underground
- Located off the Great Highway

PROJECT BENEFITS

- 100% beneficial reuse of biogas
- Seismic upgrades
- Improved operating reliability
- Extended useful life of assets
- Odor control
- Improved process performance





Southeast Treatment Plant

Located in Bayview/Hunters Point, the Southeast Treatment Plant (SEP) is nestled in the midst of a mixed industrial/commercial/residential area, with some neighbors only a street's width away. The SEP is San Francisco's largest wastewater facility, responsible for treating flows from the Bayside of the City in addition to Daly City and Brisbane. Wastewater is transported to the SEP through a grid of transport/storage boxes, sewers, and five major pump stations. The SEP treats 60 million gallons per day (MGD) of wastewater and handles 160 wet tons of biosolids each day. During a rainstorm, it has the capacity to treat up to 250 MGD.

Needed Plant Improvements Underway

Built in 1952, much of the SEP facilities represent 1940's technology and are operating well beyond their useful lives. As a result, structural elements of the plant have deteriorated. The existing solids processing facilities are in constant need of repair and have become a known nuisance and source of odors in the surrounding neighborhood. SEP must undergo operational improvements and seismic upgrades in order to ensure the reliability of the sewer system and to protect the health of our community and environment. SSIP upgrades to the SEP include:

- New Biosolids Digester Facilities
- Replacement of the headworks (where the flow enters the plant)
- Structural and seismic retrofits
- New oxygen plant and influent pumps
- Odor control improvements
- Architectural and landscape improvements to the perimeter

The proposed improvements to the SEP have incorporated public input from the Southeast Digesters Task Force, an advisory group of neighborhood and business interests who provided recommendations on reducing community impacts. These major infrastructure upgrades will help to ensure that cleaned, treated water is released into the Bay and that we continue to protect the health of our community and environment.

Updated 06/2014

For more information, visit: sfwater.org/ssip



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SEP AT A GLANCE

- Built in 1952
- Largest all-weather facility treating 80% of the City's flows
- Treats on average 60 MGD of wastewater and up to 250 MGD during rain storms
- It takes about 11 hours to clean and treat the wastewater before it is released 800 feet into the San Francisco Bay
- Located in Bayview/Hunters Point

PROJECT BENEFITS

- Improve process performance
- Odor control
- Seismic improvements
- Improve operating reliability and efficiency
- Minimize neighborhood impacts
- Improve the visual aspects of the plant
- New biosolids facility



San Francisco
Water Power Sewer
Services of the San Francisco Public Utilities Commission