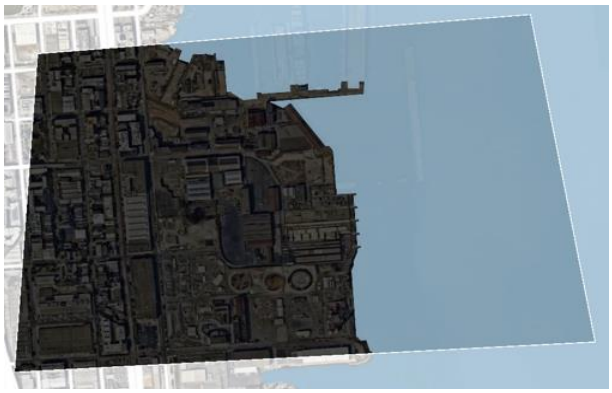
Pier 70

Subarea 3-5

Subarea Description



Subarea 3-5: Pier 70

Pier 70 (Subarea 3-5) includes Pier 70, the Union Iron Works Historic District, and the old Potrero Power Plant. Each site is in various stages of planned redevelopment to incorporate historic renovation with mixed-use residential housing projects. This subarea also includes a portion of the Dogpatch residential area.

Roughly half of the subarea is industrial and half is residential. Residential areas are between Mariposa Street in the north and 23rd Street in the south. The neighborhood was initially primarily working-class, but gentrification since the 1990s has changed demographics to mostly upper-middle class working professionals, mirroring the adjacent Potrero Hill neighborhood.

Within the Union Iron Works Historic District, Pier 68 consists of large ship dry docks, cranes, and industrial buildings. It has historically provided maritime and industrial ship repair. The shipyard has a large drydock that remains one of only five ship repair yards on the West Coast that can repair extra-large (post-panamax) sized vessels. However, due to competitive demands of the industry, the Port is seeking other maritime business operations that can utilize the shipyard infrastructure, which needs numerous improvements in order for shipyard services to be maintained in this location. Use of the pier could continue under temporary flooding scenarios and activities could resume after flood waters recede. However, permanent inundation would eliminate the ability to use the pier for ship repair or other maritime operations. Pier 68 is part of the greater Pier 70 project.

Many buildings and structures on and near Pier 70 are within the Union Iron Works Historic District because of their connection to ship building and repair over the last 150 years. Existing structures at the site have deteriorated over time and the pier itself is largely unused. However, a Port-led effort referred to as the Pier 70 project is underway to create a new, mixed-use development in the area. The project will revitalize the area east of Illinois Street extending from Mariposa to 22nd Street. Plans include rehabilitation of historic resources, support for ongoing ship repair, new waterfront parks and shoreline access, and space for new residential, office, retail, production, distribution, and repair (PDR) land uses. Where possible, the project will raise grades to accommodate future sea level rise and storm surge, include additional sea level rise adaptation elements, and address potential hazards related to contaminated lands.

The Potrero Power Station, located east of the Dogpatch neighborhood, is a 28-acre site in the Central Waterfront District that directly fronts the San Francisco Bay. For over 150 years, before being decommissioned as a power plant in 2011 by then-owner Mirant Potrero LLC, the site hosted a range of industrial uses from barrel-making and sugar refining to power generation.

While PDR uses will continue to be an important aspect of the Central Waterfront, including on this site, the City's Central Waterfront Area Plan has identified this area as a location for additional growth and a wider range of land uses, including residential, commercial, and waterfront parks. Project sponsor Associate Capital began developing the site's master plan in 2017, beginning with an extensive public planning process with city agencies and the public. The proposed project will include approximately 2,400 residential units, 1.2 to 1.9 million square feet for commercial use, and six acres of open space. Development will raise grades to accommodate sea level rise and include waterfront riprap and loose stone used to form a foundation for breakwater to relieve the force of breaking waves. A seawall would be built to contain the added fill and reduce the potential for shoreline erosion. Designs also include shoreline open space and park lands that can be flooded during extreme storm events. The Potrero Power Station Design for Development Public Review Draft, Draft Infrastructure

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Plan, and Draft Environmental Impact Report were published on October 3, 2018. The Potrero Power Station project received all necessary approvals from the City in the spring of 2020 and will be fully entitled in the summer of 2020.

The Blue Greenway is the City of San Francisco's project to improve the City's southern portion of the 500-mile, nine-county, regionwide San Francisco Bay Trail. This waterfront public access trail compliments the newly established Bay Area Water Trail and associated waterfront open space system. In general, the Blue Greenway closely follows the alignment of the San Francisco Bay Trail and Bay Area Water Trail from Mission Creek on the north to the county line on the south.

The 20th Street Pump Station is a below grade pump station located in a mixed residential and commercial area on 20th Street, approximately 100 feet from the San Francisco Bay shoreline. This pump station serves the eastern end of 20th Street and the Pier 70 Shipyard in the Mariposa drainage basin. It has a pumping capacity of three million gallons per day and conveys dry and wet weather flows to the 20th Street gravity sewer connection structure.

Constructed in 1993, the 20th Street Pump Station was last upgraded in 2010. Electrical equipment and controls are located at grade and below grade, and the pump motor is located below grade. The main power is located at grade west of the station. Pathways that could cause flooding at the pump station include the access hatch and the air exhaust, both located at ground level. Water would reach below grade rooms and equipment from these entry points.

The pump station will be replaced as part of the Pier 70 development project. Additional pumps will be required in the future for the pump station to maintain outflow capacity during extreme wet-weather events and as sea levels rise. Adaptive measures, such as backflow prevention, are currently being installed to prevent the inflow of Bay water into the discharge structures when water levels are elevated. The pump station's combined sewer discharges are grouped by their transport or storage box, which captures combined wastewater and stormwater from the sewer system before it reaches the Bay. Sea level rise can impact the discharge capacity of these outfalls.

Since 2017, the Port has connected with tens of thousands of community members through the Waterfront Resilience Program. Public feedback collected about Pier 70 underscores the importance of maintaining the maritime industry through such functions as vessel landings, providing for multiuse development, including housing and development of the piers.

Further feedback highlights additional community priorities, including opportunities to enhance public green space, preserve and adapt historic resources, and improve housing and transit access. Community feedback related to this subarea is included in the Community-Identified section as part of the Review of Landmarks, Assets, and Services listed below and incorporated in the overall POOCC analysis.

Landmarks, Assets, and Services

Land Use

This sub area is zoned mostly as Heavy Industrial (the seawall lots and piers), with a portion of Pier 70 having its own mixed-use designation. The subarea also includes public lands, mixed-use residential, and approximately one block that remains zoned as production, distribution & repair. Approximately two blocks on 22nd Street are zoned as neighborhood commercial transit.

Community-Identified

- Historic Pier 70
- Life station
- Crane Cove Park
- Muni T-Line (transit connections)
- Twentieth Street pump station
- More green space
- Development of Piers

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Historic and Cultural

- Union Iron Works Historic District
- Dogpatch Local Historic District
- Irving Murray Scott School

Maritime

- Large Vessel Shipyard (Pier 68, and drydocks)
- Pier 70 Project Area
- Seawall Lot 349
- Seawall Lot 345

Disaster Response

- Assembly Area (planned at Seawall Lot 349)
- Large Vessel Berth (Pier 68)
- Illinois Street (major arterial)

Utilities

Water

- Tennessee Pump Station
- Twentieth Street Pump Station
- Channel Force Main
- Buried water supply pipes

Wastewater

- Buried sewer pipes
- Combined sewer discharge outfalls (2)

Power

- Potrero Hill Substation
- Transbay cable connects to power substation
- PG&E ZX-1 Transbay downtown redundancy
- PG&E Jefferson Martin 220 KV line
- Overhead and buried electric power infrastructure

Communications

- Several telecommunication cell sites (e.g. cells on top of buildings or small cell towers on streetlights) are likely distributed throughout the subarea, but specific locations are unknown

Natural Gas

- Buried natural gas supply line infrastructure

Transportation

- Muni bus stops (15)
- Muni T-Line
- Muni Central Subway turn around loop (18th/19th Street)

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Open Space and Ecology

Open Space

- San Francisco Bay
- Bay Trail / Blue Greenway
- Esprit Park
- 22nd Street access (planned new open space improvements)
- Crane Cove Park (planned)
- Pier 70 (new open space improvements)
- Slipway park (planned new waterfront park)
- Potrero Power Station Shoreline Park

Problems, Opportunities, Objectives, Constraints, and Considerations

Problems

- Bay water flooding from rising sea levels could cause extensive damage to public infrastructure, private property, industrial processes, and disaster response. This could result in adverse changes to the social and economic character of the subarea.
- The subarea's assets are mostly located on Bay fill making them vulnerable to strong seismic activity and liquefaction.
- This subarea provides important maritime, industrial, and disaster response services highly vulnerable to both temporary and permanent flooding.
- The soil within the Pier 70 area, which includes the Union Iron Works Historic District, is subject to a "Risk Management Plan" that functions as the remedial action plan for the site and ensures that contaminants in the existing soil do not pose a risk to human health or the environment. Flooding could impact remediation.
- As flooding becomes more frequent and widespread, access to the subarea is likely to become unreliable, increasing maintenance and operations costs as well as the cost of continued disruption and damage.

Opportunities

- Enhancement and adaptation of former and current industrial spaces for city and community uses, including potential disaster response abilities.
- Increased access to the waterfront and improved public views and experience connecting to the Bay.
- Improved natural environment by using nature-based features and improve soil quality, where possible.
- Identification of other co-benefits such as more jobs, and of more job types, in the project area.

Objectives

- Reduce the risk to disaster response functionality and public safety (including loss of life) and public health from Bay storms and rising water levels.
- Reduce the risk to critical public infrastructure and private property damage from strong seismic activity and rising bay water levels.
- Retain and improve public access when developing project features.
- Remove environmental risks and improve the natural environment (water quality/soil) and ecological value.
- Support a sustainable economy that benefits residents, workers, and industries.
- Preserve maritime operations.

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Constraints

- Must not increase the unmitigated risk of flooding from any source (bay, creek, or surface waters) outside of the subarea.
- Must protect disaster response functionality of the subarea.
- Must not cause an increase in response time from emergency responders, nor cause an increase in flood risk to critical facilities.
- Must comply with all applicable federal, state, and local laws and policies.
- Must comply with applicable executive orders (EOs), including EO 11514 (Environmental Quality), EO 11593 (Protection of Cultural Environment), EO 11988 (Floodplain Management), EO 11990 (Protection of Wetlands), EO 12898 (Environmental Justice), EO 13007 (Indian Sacred Sites), EO 13045 (Environmental Health & Safety Risks to Children), EO 13122 (Invasive Species), EO 13783 (Promoting Energy Independence and Economic Growth), EO 13807 (Establishing Discipline and Accountability in the Environmental Review and Permitting Process) and EO 13834 (Efficient Federal Operations).

Considerations:

- Current projects: Ongoing planning processes and outreach efforts are underway for Pier 70 and the old Potrero Power Station.
- Tenants: The Port leases land to tenants including private companies, City agencies, and the U.S. military. Coordination with all tenants will be important. While the Port owns these lands, many are operated by tenants that invest private capital for infrastructure improvements to the facilities. Management decisions related to addressing the consequences of flooding and planning for future sea level rise adaptation could complicate lease terms and will require additional coordination with tenants.
- Environmental challenges: Hazardous waste, solid waste, and impaired water are environmental concerns.
- Equity: Subareas within this reach include low-income communities of color and other communities of concern. Consider accessibility and community priorities when developing strategies for this subarea.
- USACE Environmental Operating Principles: Incorporate as part of the planning process.
- Industrial status: Several key infrastructure assets that serve the entire city (deep water berths, railroad connection, emergency and disaster response staging areas) are located in the subarea.
- Stakeholder engagement: Ongoing public outreach by the Port and additional efforts has generated many location specific comments from the community. Community feedback includes maintaining the maritime industry, providing multiuse development, including housing, enhancement of green space, preserving historic resources and improving housing and transit as priorities.
- Flooding or seismic events: These events could potentially impact maritime and industrial uses that generate Port revenues used for capital repair and maintenance of Port assets and services, including piers, historic buildings and districts, shoreline flood and seismic risk reduction, open space, public assets, parks, maritime berths and other maritime infrastructure, the Embarcadero Promenade and other utilities and infrastructure.

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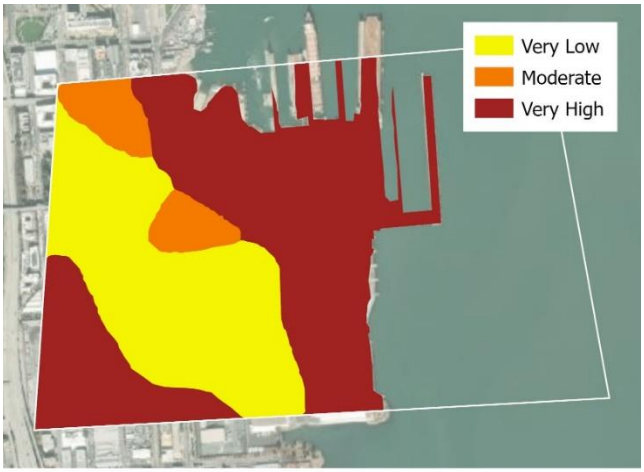
Seismic Summary

The seismic hazard and vulnerability within Pier 70 (Subarea 3-5) is currently being evaluated through the Initial Southern Waterfront Seismic Study, therefore comprehensive accounting of liquefaction and lateral spreading hazards cannot currently be provided.

From a regional perspective, USGS provides a high level rating of seismic hazard in Mission Bay (Subarea 3-4) as an VIII on the Modified Mercalli intensity (MMI) scale. The intensity scale consists of a series of certain key responses such as people awakening, movement of furniture, damage to chimneys, and finally – total destruction – on a scale of I (not felt) to X (extreme).



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

An MMI of VIII (severe) could cause slight damage in specially designed structures, considerable damage in ordinary substantial buildings including partial building collapse, and major damage in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, and walls are likely, and heavy furniture may be overturned.

Subarea 3-5 includes areas with Very High, Moderate, and Very Low susceptibility to liquefaction. The scale considers historical liquefaction occurrences, geotechnical analyses of limited borehole data, and the estimated depth to the shallow groundwater table. The susceptibility ratings are based on existing conditions and do not consider potential increases to the groundwater table that may occur with sea level rise and climate change.

Our understanding of seismic hazard and vulnerability in this subarea will continue to be refined with the completion of the Initial Southern Waterfront Seismic Study and used to develop appropriate risk mitigation measures as part of the Waterfront Resilience Program.