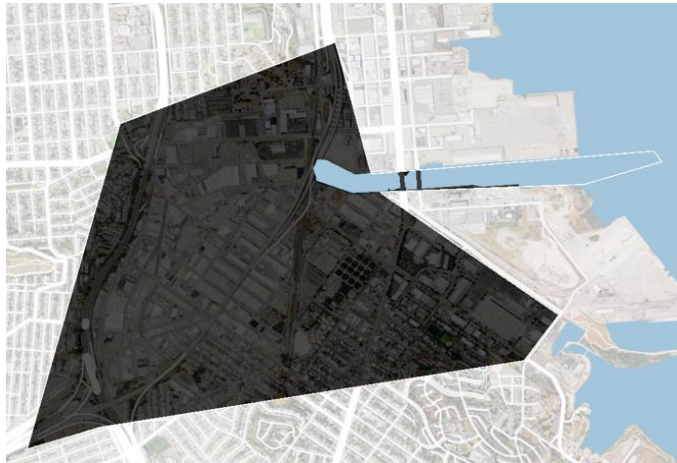


# Islais Creek

## Subarea 4-2



### Subarea Description



**Subarea 4-2: Islais Creek**

**Islais Creek** (Subarea 4-2) covers a large portion of the neighborhoods surrounding Islais Creek. It includes the industrial zone surrounding the western portion of Islais Creek, Islais Creek Channel, and the northern section of the Bayview Hunters Point neighborhood north of Palou Avenue.

The area contains several key infrastructure assets, including the Southeast Wastewater Treatment Plant, as well as multiple transportation storage, maintenance, and operation facilities that serve the entire city.

The Southeast Wastewater Treatment Plant is San Francisco's largest wastewater facility. It is responsible for treating flows from the City's Bayside in addition to minor flows from Daly City and Brisbane. The Southeast Treatment Plant operates 24 hours a day,

365 days a year, and serves about two-thirds of San Francisco residents, or over 580,000 people as of 2016. Neighborhoods served by the plant include the Marina, Financial District, South of Market Area, Mission, Hunters Point, and Visitacion Valley.

More than 80 percent of the total annual wastewater flow from the city is processed by the Southeast Treatment Plant. Wastewater and stormwater are transported through a network of transport and storage facilities, sewers, and five high-capacity pump stations prior to reaching the Southeast Treatment Plant. Treated wastewater and stormwater is discharged to the Bay through an offshore outfall near Pier 80.

Disaster response assets, such as fire stations and hydrants of the Emergency Firefighting Water System (EFWS; also known as the Auxiliary Water Supply System or AWSS), are in the subarea. The EFWS is supplied by the local potable water system and saltwater from San Francisco Bay and distributed via a separate pipe network from the potable water systems.

The subarea contains the northern portion of the 3rd Street neighborhood commercial district. Third Street, including the Muni T-Third Light Rail Line (Muni T-Line), is a critical north-south transportation route for Bayview residents. Third Street and the Muni T-Line cross Islais Creek along the Third Street Bridge. The other roadway crossing over Islais Creek is Illinois Street, via the Illinois Street Bridge. The Illinois Street Bridge primarily serves to provide railroad and heavy truck access to Piers 90-96, while also relieving congestion on Third Street. Illinois Street and the Illinois Street Bridge are also part of the City's disaster response system.

Within the Islais Creek inlet, the shoreline is primarily engineered, but small strips of natural shoreline are located between the inlet and the inland developed areas. Some of these areas are designated as parks with public shoreline and trail access.

The City received funding from Caltrans to develop strategies to address sea level rise and coastal flooding adjacent to Islais Creek through the Islais Creek Adaptation Strategy. The project will develop near-term resilience measures, mid-term adaptation, and a long-range vision for the Islais Creek shoreline that protects transportation infrastructure, enhances shoreline access and habitat, and increases community resilience in adjoining neighborhoods. Islais Creek is also included in the Port and U.S. Army Corps of Engineers Flood Study, which is analyzing flood risks along San Francisco's bayside shoreline.

The Islais Creek channel is also part of the Port of San Francisco Piers 80–96 Maritime Eco-Industrial Strategy (Maritime Eco-Industrial Center), which is generally bounded by 25th Street on the north, Illinois Street on the west and Cargo Way on the south. The Port defines the Maritime Eco-Industrial Center as an area that co-locates maritime industrial uses to enable

# Islais Creek

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product exchange, optimize use of resources, incorporate green design and green technologies on-site, fosters resource recovery and reuse to provide economic opportunities that employ local residents, minimize environmental impacts and incorporate public open space for enjoyment and wildlife habitat.

Since 2017, the Port has connected with tens of thousands of community members through the Waterfront Resilience Program. Public feedback collected about Islais Creek underscores the importance of maintaining the maritime industry, adapting critical Port and City-owned infrastructure, making affordable housing available and addressing displacement, and getting people where they need to go through different transportation options.

Additional community features highlighted in feedback included appreciation for the neighborhood's diversity and culture, improvement of availability of food options, and the importance of schools, community-based organizations, and family-oriented amenities. Further feedback highlights additional community priorities, including opportunities to protect community and address pollution, restore wildlife habitat, protect public access to the Bay Trail, and plan for emergency response. 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 POCC analysis.

### Landmarks, Assets, and Services

#### Land Use

Most of this subarea is zoned as Light and Heavy Industrial and Production, Distribution and Repair Districts, with the southern edge of the subarea zoned Residential and a short portion of Third Street there zoned as Neighborhood Commercial District. Much of the City's industrial land use is located within Reach 4. A portion of the subarea is part of the Industrial Protection Zone Special Use District, which was established to protect and preserve these land uses and activities from competing with higher priced land uses. Current uses include various industrial and automobile related businesses such as iron, metal, and chemical processing companies, gas stations, rental car facilities, automotive repair shops, and the home of the Yellow Cab Co-Op. There are also Public zoned city and state facilities including a highway patrol office, a Public Works Yard, and the Southeast Wastewater Treatment Plant.

#### Community-Identified



- Third Street Bridge
- Bayview Opera House
- Fire Station 49
- Hunters Point Community Youth Park
- Islais Creek Dragon Boat Training Center
- Muni T-Line (transit connections)
- Produce Market
- San Francisco City College

#### Historic and Cultural



- While there are no Category A historical assets designated or registered in this subarea, there are some Category B Assets that meet age requirements and may be eligible for further evaluation, including the Third Street Bridge over Islais Creek (Legon Hagop Nishkian Bridge)
- A large portion of the subarea is part of a newly created Cultural Heritage District, the African American Arts and Cultural District

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### Maritime



- Pier 84 (remnant pier at end of Islais Creek Chanel)
- Islais Channel Marina (remnant along Islais Creek Channel)

### Disaster Response



- Fire Station 49, Emergency Medical Services
- Fire Station 9
- Illinois Street Bridge
- Illinois Street
- EFWS cistern (1)
- EFWS pipe yard
- San Francisco Bay Railroad
- Union Pacific Railroad

### Utilities

#### Water

- City Distribution Division (CDD) Yard
- Bruce Flynn pump station
- Rankin pump station
- Davidson pump station
- Southeast Lift station
- Channel Force Main
- Hunters Point Tunnel
- Buried water supply pipes

#### Wastewater

- Southeast Wastewater Treatment Plant
- Buried wastewater and stormwater sewer pipes
- Combined sewer discharge outfalls (4)

#### Power

- Bayshore PG&E Substation
- Photovoltaic system
- Internal combustion engine
- 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

- No buried natural gas supply line infrastructure



# Islais Creek

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### Transportation



- Third Street Bridge
- Illinois Street Bridge
- Marin Yard
- Islais Creek Division
- Burke Warehouse
- Union Pacific Railroad
- San Francisco Bay Railroad
- California Interstate 280

### Open Space and Ecology



#### Open Space

- Bay Trail
- Bay Water Trail Islais Creek Launch
- Dogpatch / Miller Memorial Garden
- James Rolph Junior Playground
- SFMTA & SFPUC Promenade
- Palau and Phelps Park
- Potrero del Sol
- Selby & Palou Mini Park
- Wolfe Lane Community Garden
- Youngblood-Coleman Playground

#### Ecology

- Bay Habitat
- Small areas of wetlands along the north and south shores of Islais Creek and Warmwater Cover
- Islais Creek

### Critical Facilities



- Traffic Company and Forensic Services Division

# Islais Creek

## Subarea 4-2



### Problems, Opportunities, Objectives, Constraints, and Considerations

#### Problems

- The Islais Creek area was once open bay and marshlands that were filled to create lands for industrial functions. Rising sea levels and the continuing possibility of an earthquake put the integrity of the shoreline and assets at risk.
- This subarea contains key infrastructure assets, such as the Southeast Wastewater Treatment Plant, that serve the entire City and could be impacted from flooding due to rising sea levels.
- Rail is particularly sensitive to flooding because it cannot operate with even minimal flooding and flooding on one section of the rail results in disruption to the whole network. Rail in San Francisco is critical for connecting the City to the region and beyond, especially with respect to the construction industry and removal of debris after a disaster.
- Most of the Industrial District assets are built on Bay fill, making them highly vulnerable to strong seismic activity and potentially increasing liquefaction due to rising sea levels. (See Seismic Summary below).
- Existing environmental challenges could be exasperated from flooding, further impacting communities that are already socially vulnerable and experiencing environmental injustice.

#### Opportunities

- Improve public safety by strengthening defenses and adapting the shoreline and low-lying areas, including all disaster response assets to rising sea levels.
- Enhance and adapt former and current industrial spaces for city and community uses, including potential disaster response functionality.
- Improve the natural environment by using nature-based features in place of, or on top of, hard structures, and restoring soil and water quality, where possible.
- Increase public access to the waterfront and improved public views and experience connecting to the Bay.
- Focus on social equity and environmental justice, supporting the existing social character of the larger neighborhood.
- Identify co-benefits, such as more jobs for community members, such as production, repair, and distribution (PDR) and Port jobs that tend to be high paying and focused towards community members.

#### Objectives

- Reduce the risk to public infrastructure and private property damage from Bay storms, rising water levels and seismic activity.
- Ensure a reliable transportation system and social equity: Create accessible transportation between the waterfront, the city, and the region; adapt key transportation facilities to flooding to maintain operations, service, and connectivity.
- Using blue-green approaches, improve recreation and access along the San Francisco waterfront when developing project features.
- Prioritize nature-based solutions and green infrastructure to mitigate floods, improve stormwater management, and support local ecology.
- Acknowledge the significance of the newly designated African American Cultural District at Bayview Hunters Point, and other cultural groups, as central to developing future visions; engage with youth to build long-term understanding, capacity, and stewardship.

# Islais Creek

## Subarea 4-2



- Maintain and increase the number of women- and minority-owned businesses, community benefit organizations, worship centers, and arts and culture organizations.

### Constraints

- Must not increase the unmitigated risk of flooding from any source (bay, creek, or surface waters) outside of the subarea.
- Ensure no loss of existing flood protection.
- Avoid and minimize impacts to transit, economy, and the bay ecosystem
- Consider environmental challenges (hazardous materials) and communities of concern.
- The project must not cause an increase in response time for emergency responders, nor cause an increase in flood risk to critical facilities, such as police stations, fire departments, hospitals, schools, or other key infrastructure structure.
- The project must comply with all applicable federal, state, and local laws and policies.
- The project 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). Add lease terms (e.g. 5 year leases), other investment constraints.

### Considerations:

- **Environmental challenges:** Hazardous waste, solid waste, and impaired water are environmental concerns.
- **Special status of Industrial area:** The area includes several key infrastructure assets that serve the entire city (Southeast Wastewater Treatment Plant, disaster response, recycling, and transportation infrastructure).
- **Stakeholder engagement:** Ongoing public outreach by the Port and additional efforts, including those conducted via the Islais Creek Southeast Mobility Adaptation Strategy, have generated many location specific comments from the community. Groups affiliated with the African American Cultural District at Bayview Hunters Point, and other cultural groups, would like to be centrally involved in developing future visions.
- **Equity:** The neighborhood has been subjected to significant historical and environmental injustices, and has high social vulnerability, with high poverty, crime, unemployment, and hospitalization rates relative to San Francisco. Most of the area is included within MTC's communities of concern analysis. It also has strong economic and cultural life, with high rates of women- and minority-owned businesses, numerous community benefit organizations, worship centers, and arts and culture organizations.
- **USACE Environmental Operating Principles:** Incorporate as part of the planning process.



# Islais Creek

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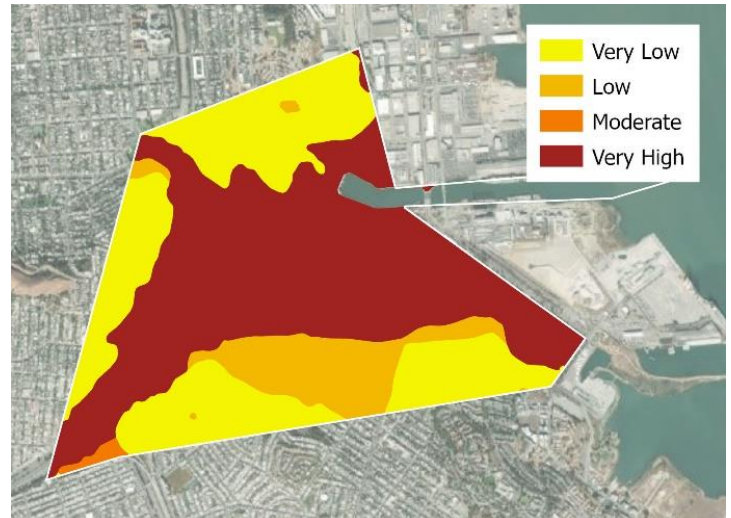


### Seismic Summary

The seismic hazard and vulnerability within Islais Creek (Subarea 4-2) 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 Islais Creek (Subarea 4-2) 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).

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.



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

Subarea 4-2 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.