



San Francisco Floodplain Management Program Fact Sheet

March 23, 2021

Summary

The City and County of San Francisco is a participant in the National Flood Insurance Program (NFIP). Under this program, which is managed by the Federal Emergency Management Agency (FEMA), the federal government makes flood insurance available at affordable rates in the City. Homeowners, renters, and businesses in any part of the City are eligible to purchase federally subsidized flood insurance to protect their properties – including individuals at risk of flooding during severe winter rains.

As a condition of participating in the NFIP, the City has adopted and enforces a Floodplain Management Ordinance¹ intended to reduce the risk of damage from flooding in the City. The Floodplain Management Ordinance governs construction in flood-prone areas and designates the City Administrator's Office as the City's Floodplain Administrator. The ordinance requires that, in federally designated flood hazard areas, new construction of and substantial improvements to buildings must be protected against flood damage. It also prohibits uses that would increase flood risks. The ordinance provides for variances for exceptional circumstances, including historic preservation, maritime uses, and extraordinary hardship. The ordinance was first adopted in 2008 and was amended in 2010 and 2020.

To support the NFIP, FEMA publishes Flood Insurance Rate Maps (FIRMs) for participating communities, which are used for flood insurance and floodplain management purposes. FIRMs show Special Flood Hazard Areas (SFHAs), which are defined as areas subject to inundation during a flood having a 1-percent chance of occurrence in any given year (also referred to as the Base Flood or 100-year flood). In November 2015, FEMA released a preliminary FIRM for the City and County of San Francisco; following input and appeals from the City, FEMA released a revised preliminary version of the FIRM in May 2019. FEMA notified the City on September 23, 2020, that the flood hazard data shown on the FIRM is final and that the FIRM will be "effective" (that is, formally published and required for use for flood insurance and floodplain management purposes) on March 23, 2021. The final FIRM designates coastal flood hazard zones for portions of the waterfront piers, Mission Bay, Bayview Hunters Point, Hunters Point Shipyard, Candlestick Point, Treasure Island, San

¹ Ordinance number 188-08 established the floodplain management program by adding Article XX, Sections 2A.280 through 2A.285 to the San Francisco Administrative Code. The Board of Supervisors approved ordinance number 226-20 to amend the floodplain management program, effective December 14, 2020.

Francisco International Airport, and Ocean Beach, which may have implications for development plans and insurance requirements in those areas. The FIRM does not account for future conditions, such as potential sea-level rise; or flooding of city streets caused by storm runoff.

These topics are described in greater detail below.

Flood Insurance

Under Federal laws that govern the lending industry, flood insurance is required only for structures in SFHAs that have mortgages from federally backed or federally regulated lenders, and then in San Francisco only after the FIRM becomes effective on March 23, 2021. Otherwise, flood insurance purchase is voluntary. Homeowners, tenants, and business owners in areas of the City that are at risk of flooding are encouraged to purchase flood insurance because general hazard insurance does not cover flood damage. Residents in areas of the City that have flooded due to storm runoff will benefit significantly from the ability to purchase federally subsidized flood insurance. More information about the cost and benefits of flood insurance can be obtained from FEMA at www.floodsmart.gov. The San Francisco Public Utilities Commission also provides information regarding purchase and coverage of flood insurance at <https://sfwater.org/modules/showdocument.aspx?documentid=11496>.

Floodplain Management Ordinance

To develop the Floodplain Management Ordinance and procedures for implementation, the City Administrator led a Citywide Floodplain Management Working Group that included the Airport, Department of Building Inspection, Office of Community Investment and Infrastructure, Planning Department, Department of Public Works, Port of San Francisco, San Francisco Public Utilities Commission, and the City Attorney's Office. In general, the Floodplain Management Ordinance:

- Requires the first floor of a new or substantially improved² residential structure³ in a SFHA to be constructed above the Base Flood Elevation.
- Requires the first floor of a new or substantially improved non-residential structure in a SFHA to be constructed above the Base Flood Elevation, or to be floodproofed.

²FEMA defines "substantial improvement" as modifications to an existing structure that cost more than 50 percent of the market value of the structure. This threshold also applies to repairs to damage, such as damage caused by a fire.

³For floodplain management purposes, the NFIP defines a structure as a walled and roofed building, including a gas or liquid storage tank, which is principally above ground. It does not include infrastructure such as streets, pipelines, and seawalls.

- Ties the construction standards required by the more stringent floodplain management requirements to the San Francisco Building Code, which incorporates flood design standards published in American Society of Civil Engineers (ASCE) 24.
- Provides for variances in exceptional circumstances, including historic preservation, maritime uses, and extraordinary hardship.
- Applies to areas outside of the City where the City owns property and/or facilities and must enforce floodplain management requirements based on the SFHAs shown on the FIRMs for the counties in which those properties/facilities are located.

Because FEMA has finalized the flood hazard data shown on the FIRM, the City may use that information to implement the Floodplain Management Ordinance. The City is required to use the FIRM for floodplain management on and after the effective date of March 23, 2021.

Development Ramifications

The City Administrator's Office is working with other City agencies and departments to ensure that floodplain management requirements are being incorporated into ongoing planning for projects in flood-prone areas. Re-use projects at Treasure Island, Candlestick Point, Bayview Hunters Point, and the Hunters Point Shipyard are at a planning stage and appropriate mitigation measures to address flood hazards will be incorporated into the project plans. It is anticipated that through grading and other site improvements, land at risk of flooding in Mission Bay, Bayview Hunters Point, and Treasure Island may be raised above the floodplain prior to redevelopment. The Port is working with its development partners to examine options for adaptive reuse of the finger piers in the Embarcadero Historic District in a manner that is consistent with NFIP requirements and the City's Floodplain Management Ordinance.

Status of the FIRM

The FIRM for San Francisco shows SFHAs within the City⁴ as:

- Zone AE: areas of coastal flooding with no wave hazard; or waves less than 3 feet in height.
- Zone AO: areas of shallow flooding caused by coastal inundation, with depths averaging 1 to 3 feet.
- Zone VE: areas of coastal flooding subject to the additional hazards associated with the action of waves that exceed 3 feet in height.

⁴ Flood hazards for City-owned sites outside of the City proper are shown on the separately published FIRMs for the counties in which those facilities are located. For example, properties that are part of the Hetch Hetchy system are shown on the FIRMs for the counties in which they are located.

The FIRM also shows waterfront piers and some nearby areas operated by the Port as Zone D, defined as an area of possible but undefined flood hazard. The construction standards and insurance requirements described above do not apply in Zone D. However, the Port will manage development of the piers with consideration for the current flood risk as well as the risk of flooding associated with potential sea-level rise.

The FIRM only shows flood hazards associated with coastal areas, including the bay shoreline and the Pacific Ocean coast. It does not show flood hazards for interior areas, such as flood hazards that may be caused by storm runoff. Additionally, the FIRM provides an assessment of flood risk associated with current conditions; it does not show the potential for increased flood risk due to future conditions, such as sea-level rise. (For more information regarding storm runoff and sea-level rise, see the “For More Information” section below.)

The final FIRM can be viewed on-line on the City’s Property Information Map: <https://sfplanninggis.org/pim>.

Next Steps

1. Because San Francisco participates in the NFIP, homeowners, tenants, and businesses can purchase federally subsidized flood insurance. Those individuals who have property that has flooded in the past, or that are concerned about potential flood damage, are encouraged to purchase flood insurance now.
2. The City Administrator, working with other City agencies and departments, is preparing revised procedures to implement the Floodplain Management Ordinance using the new FIRM.
3. On and after the FIRM’s effective date (March 23, 2021), the FIRM will be used for flood insurance ratings and floodplain management purposes.

For More Information

FEMA Flood Insurance Rate Map (FIRM) – Coastal Flooding

For information regarding the City’s participation in the NFIP or the City’s Floodplain Management Ordinance, contact the City Administrator’s Office at (415) 554-4851, CAO@sfgov.org, or go to <https://onesanfrancisco.org/San-Francisco-Floodplain-Management-Program>. To determine whether a property is located in an identified flood hazard, review the FIRM at the website provided above.

100-Year Storm Flood Risk Map – Flooding from Storm Runoff

The San Francisco Public Utilities Commission has prepared a 100-Year Storm Flood Risk Map showing flood hazards associated with heavy rainfall. As described above, these flood hazards are not shown on the FIRM. For information regarding the 100-Year Storm Flood Risk Map, go to <http://sfwater.org/floodmaps>.

To determine whether a property is located in the 100-Year Storm Flood Risk Zone, use the searchable map at the website provided above; or contact RainReadySF@sfwater.org or (415) 695-7326. This information has also been incorporated into PIM.

Sea Level Rise – Future Coastal Inundation

For information regarding the Sea Level Rise Vulnerability Zone, please visit <https://www.onesanfrancisco.org/node/148>.

To determine whether a property is located in the Sea Level Rise Vulnerability Zone, use the searchable map at the website provided above; or contact Brian Strong at brian.strong@sfgov.org.