



City of San Leandro

Meeting Date: April 18, 2016

Staff Report

File Number: 16-174

Agenda Section: PRESENTATIONS

Agenda Number: 3.B.

TO: City Council

FROM: Chris Zapata
City Manager

BY: Keith Cooke
Engineering & Transportation Director

FINANCE REVIEW: Not Applicable

TITLE: Staff Report Discussing Potential Mitigation of Changes to the 100 Year Flood Zone Included in the Draft Flood Rate Insurance Maps Distributed by the Federal Emergency Management Agency (FEMA) in 2015

SUMMARY AND RECOMMENDATIONS

This is a report on flood zone mitigation activity to date and potential next steps.

Staff seeks comments from Council on exploring funding options including an assessment district consisting of properties that benefit from the flood mitigation work proposed in the vicinity of Neptune Drive and Marina Boulevard.

BACKGROUND

The Federal Emergency Management Agency (FEMA) strives to improve the Nation's capability to prepare for, protect against, respond to, recover from and mitigate all hazards including flooding. FEMA addresses flood hazards by evaluating flood risk and publishing their findings in their Flood Rate Insurance Maps (FIRMs). FEMA issued new FIRMs for San Leandro in March 2015 that raise the base flood elevation by approximately one foot and consequently expand the 100 year flood zone to include approximately 1,090 additional land parcels. A 100 year flood is an event that has a 1% likelihood of occurring each year. FEMA expects to issue a final determination on the new FIRMs in the middle of 2016; the maps will go into effect 6 months after that final determination date.

Risk of flooding is an important consideration for property owners and lenders who finance property. Each individual should examine their risk and decide how much, if any, insurance they want to purchase to guard against loss. Federally backed mortgages require flood insurance when the subject property is within the 100 year flood zone. Properties newly added to the 100 year flood zone can receive a discounted insurance rate when the insurance is purchased before or soon after new maps are adopted. FEMA reports that one in three San Leandro properties within the existing 100 year flood zone currently carry insurance.

Proposed FIRMs indicate that most of the 100 year flood zone expansion is due to four locations where flood water enters developed areas. Alameda County Flood Control and City staffs have identified mitigation measures at these four locations that potentially eliminate the related 100 year flood zone expansion. There are six parcels of land that are added to the 100 year flood zone on the FIRMs that will not be impacted by mitigation measures at these four locations. Additionally City staff has initiated the application process for the FY 2016 Pre-Disaster Mitigation (PDM) Grant Program sponsored by FEMA that could potentially fund 75% of the implementation cost of some of these mitigation efforts.

Analysis

Expansion of the 100 year flood zone can be reduced by constructing improvements at four locations. If these mitigation measures are not constructed, then the published risk of flooding for approximately 1,090 parcels of land will increase to 1% per year. Individual properties within the 100 year flood zone may have elevations sufficient to prevent flooding. Property owners may hire a surveyor to determine the elevation of their land and/or buildings and may file an elevation certificate with FEMA and request exclusion from the flood zone if their property is above the base flood elevation. Properties newly added to the 100 year flood zone that have a federally backed mortgage will be required to purchase flood insurance annually.

Mitigation Location No. 1 - Davis Street/Water Pollution Control Plant

FEMA indicates that there is a low point in the north bank of the slough at the west end of Davis Street, adjacent to the driveway of the City's Water Pollution Control Plant (WPCP). Per the proposed FIRMs, water entry at this point increases the 100 year flood zone to include sixteen additional properties on Davis Street and Eden Road, including the land that WPCP is built upon. Staff has issued a purchase order for a topographic survey of this area and will include raising the grade adjacent to the slough and driveway in the upcoming WPCP Asphaltic Concrete (AC) replacement project. As this project is underway, additional WPCP Enterprise funding of up to \$60,000 may be required and if needed will be requested at the time of project award. This project is scheduled for construction in 2017.

Mitigation Location No. 2 - 13165 Neptune Drive

A low point on the San Francisco Bay shoreline behind 13165 Neptune Drive has been identified as one of two points that allow water to enter into the Marina Faire and Mulford Gardens neighborhoods. Per the proposed FIRMs, water entry at these points increases the 100 year flood zone to include 1,054 additional properties. This low point can be eliminated by importing soil, grading the site, and installing rip rap or rock protection along the San Francisco Bay shoreline. Staff has contacted the property owners of 13165 Neptune Drive; they support the project and are willing to entertain a request for permission to construct these improvements. The project is estimated to cost \$500,000; staff has applied for a FEMA grant that could fund up to 75% of these costs. Staff recommends exploring formation of an assessment district to cover any costs not covered by grant funds. The assessment district will consist of all parcels that would be removed from the 100 year flood zone by the project. Absent grants, the cost per parcel would be approximately \$475 which is close to the cost of discounted flood insurance for one year, and less than half the average annual cost of flood insurance in San Leandro. Costs per parcel could be as low as \$120 if a FEMA grant is

awarded. Including formation of an assessment district, design, permitting, and construction, this project is anticipated to take three years to complete.

Mitigation Location No. 3 - Estudillo Canal

The Alameda County Flood Control District (ACFCD) operates the Estudillo Canal which collects and conveys storm water to the San Francisco Bay. The north bank of this canal is now listed by FEMA in the proposed FIRMs as the second of two sources of flood water that impacts 1,054 properties in the Marina Faire and Mulford Gardens neighborhoods. ACFCD is in the process of designing improvements to the banks of the Canal to eliminate this source of water. They anticipate applying for permits in the middle of 2016 and performing construction in the summer of 2017.

Mitigation Location No. 4 - Mission Bay Mobile Home Park

The fourth source of floodwater is the western property line of Mission Bay Mobile Home Park, adjacent to the Coast Subdivision line of the Union Pacific Railroad. The proposed FIRMs indicate the single parcel of land that is the mobile home park as well as two parcels of the Marina Vista neighborhood to the north will be added to the 100 year flood zone. It appears that the two Marina Vista parcels are above the base flood elevation and could be removed from the zone if the property owners filed a certificate of elevation. Due to space constraints an earthen dike cannot be constructed to stop water entry. In lieu of a dike, the existing masonry fence can be replaced with an engineered concrete sea wall that could act as a dam at an estimated cost of \$600,000. Staff has met with the mobile home park operator and discussed the project. Since the work will occur on one parcel of land and since that same parcel receives the flood protection there is little or no benefit to including the City in the project. The property owner has not yet indicated what, if any, mitigation measures they plan to pursue. A FEMA grant will be submitted for this proposed mitigation and if awarded it would cover 75% of the cost leaving a 25% match of \$150,000 as the responsibility of the property owner.

Additionally, one property on Williams Street and three parcels in Heron Bay are added to the 100 year flood zone on the proposed FIRMs. There are no obvious mitigation projects that can remove these three parcels from the zone. It may be that only a portion of these properties is within the zone and the property owners can obtain relief from insurance requirements by filing an elevation certificate.

Applicable General Plan Policies

Goal 29: Reduce the potential for injury, property damage, and loss of life resulting from earthquakes, landslides, floods, and other natural disasters.

Environmental Review

An environmental review will be performed during the design phase of these projects.

Summary of Public Outreach Efforts

The revised FIRMs were advertised by FEMA and the City in various publications as described in a presentation to Council on November 16, 2015.

The City mailed notice of the revised FIRMs to affected property owners in January, 2016.

This action item was advertised in several newspapers representing the diversity of San Leandro and on social media.

Fiscal Impacts

The WPCP AC Replacement project has a budget of \$860,000 that was appropriated in the FY 2014-15 budget. Grading work in the vicinity of the slough may increase the project cost by up to \$60,000. If an additional appropriation is required it will be requested from the Water Pollution Control Plant Enterprise Fund when the construction contract is awarded. The work may be authorized or abandoned at that time.

Neptune Drive flood protection work will require a budget of \$500,000. If preliminary investigation reveals support among the property owners for an assessment district, \$100,000 of general funds will be requested for district formation, design, and permitting costs. If there is not sufficient support for an assessment district Staff will return to council to review alternatives. Staff will continue to seek grants to cover a portion of the project cost.

ATTACHMENT

- Slides of P Flood Zone Mitigation Presentation

PREPARED BY: Nick Thom, City Engineer, Engineering and Transportation Department

City Council Meeting

April 18, 2016

Flood Zone Mitigation



Council Goals

- Maintain and enhance San Leandro's infrastructure
- Support and implement programs, activities and strengthen communication that enhances the quality of life and wellness, celebrates the arts and diversity and promotes civic pride

Outline

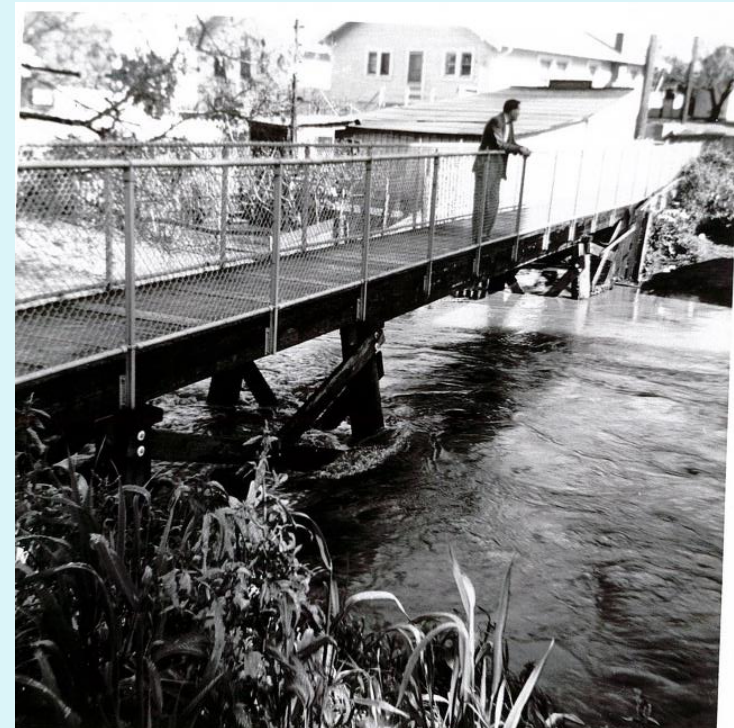
1. Planned changes to risk of flooding
2. Mitigation measures to reduce risk
3. Next steps
4. Flood Insurance and resources



FEMA

Background

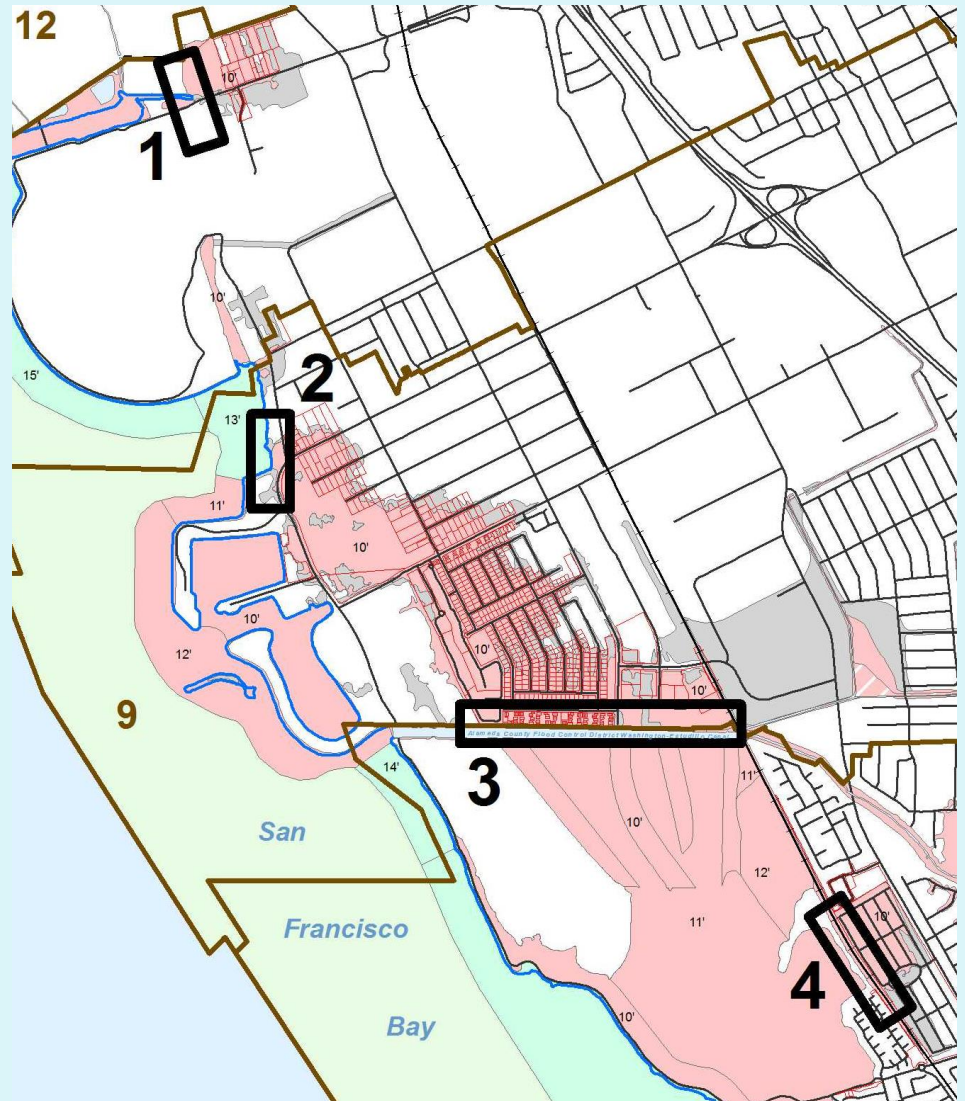
- FEMA periodically revises flood maps. Proposed 2016 maps indicate a 1 foot increase in base flood elevation
- New flood maps have been distributed and are expected to go into effect in 2017
- Properties were added to the 100 year flood zone due to four low points that allow water to enter neighborhoods.



Flood level water in San Leandro Creek April 3, 1958

Point Source of Flooding

1. West end of Davis Street
2. Neptune Drive at Marina Blvd
3. North bank of Estudillo Canal
4. West side of Mission Bay Mobile Home Park



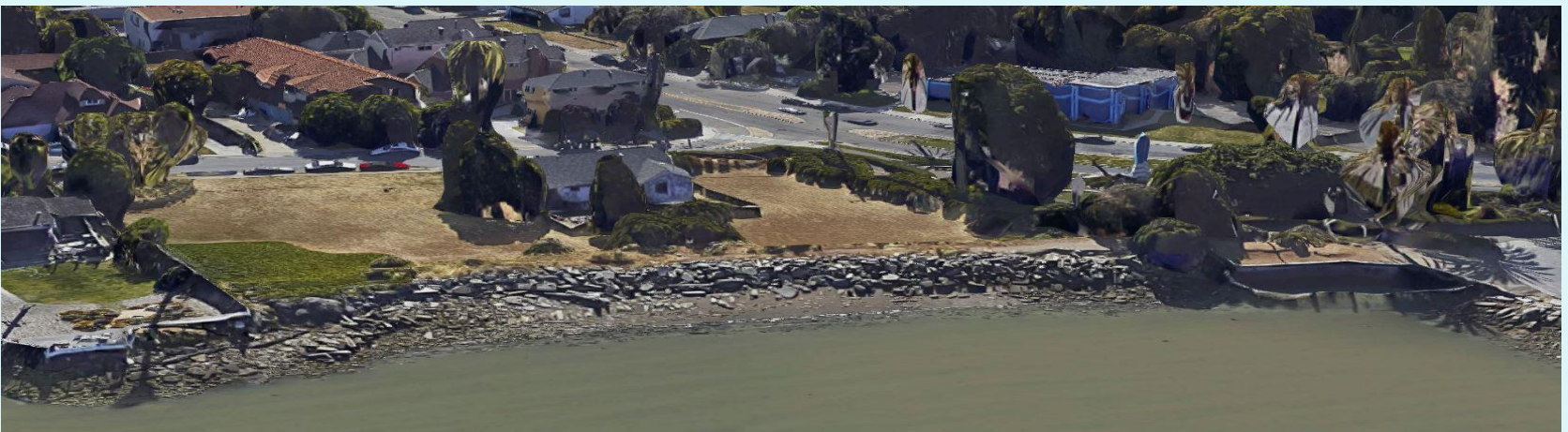
Mitigation at Point Source 1

- Raise and widen bank of slough at WPCP parking lot
- \$60,000
- Topographic survey underway
- Add work to WPCP Asphalt Replacement project



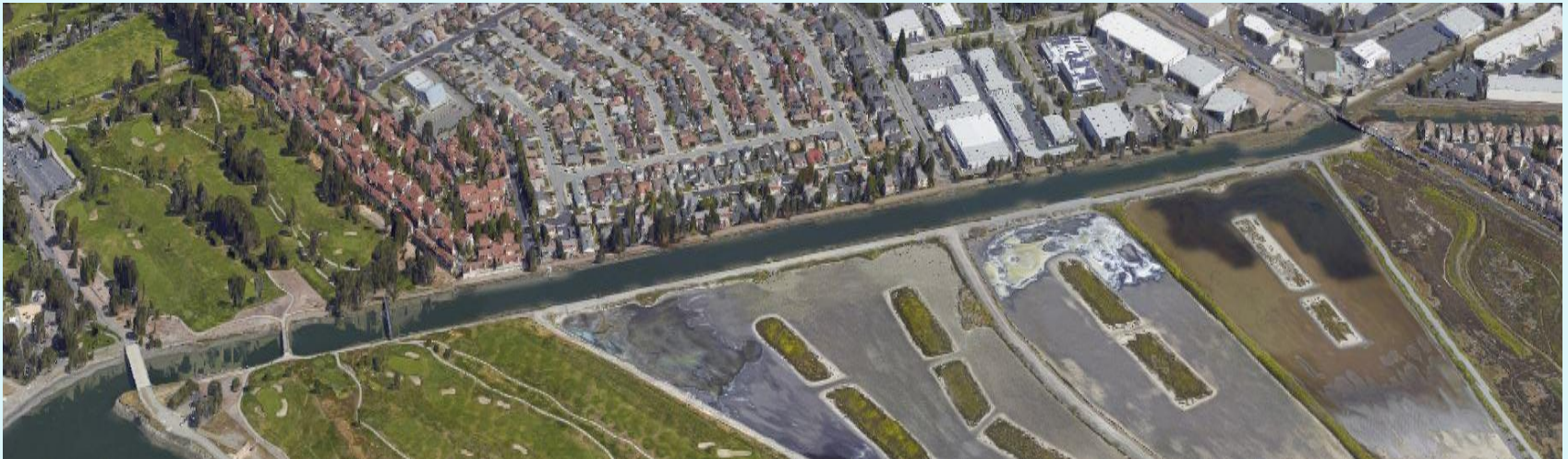
Mitigation at Point Source 2

- Build Levee, install rip rap along shoreline
- \$500,000
- Benefits 1054 properties
- Requires easement over private land
- Grant application submitted but not yet funded



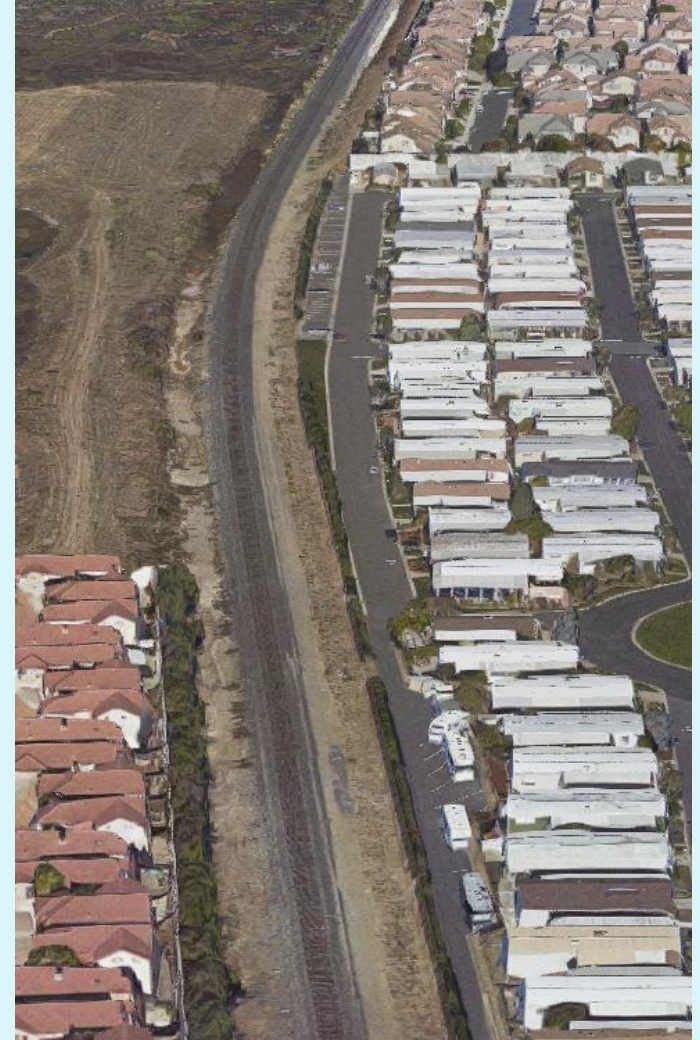
Mitigation at Point Source 3

- Raise existing levee along north bank of canal
- Alameda County Flood Control project
- Design / permit phase
- Expected completion 2017



Mitigation at Point Source 4

- Build dam/sea wall along west side of property
- \$600,000
- Benefits one property, many residents

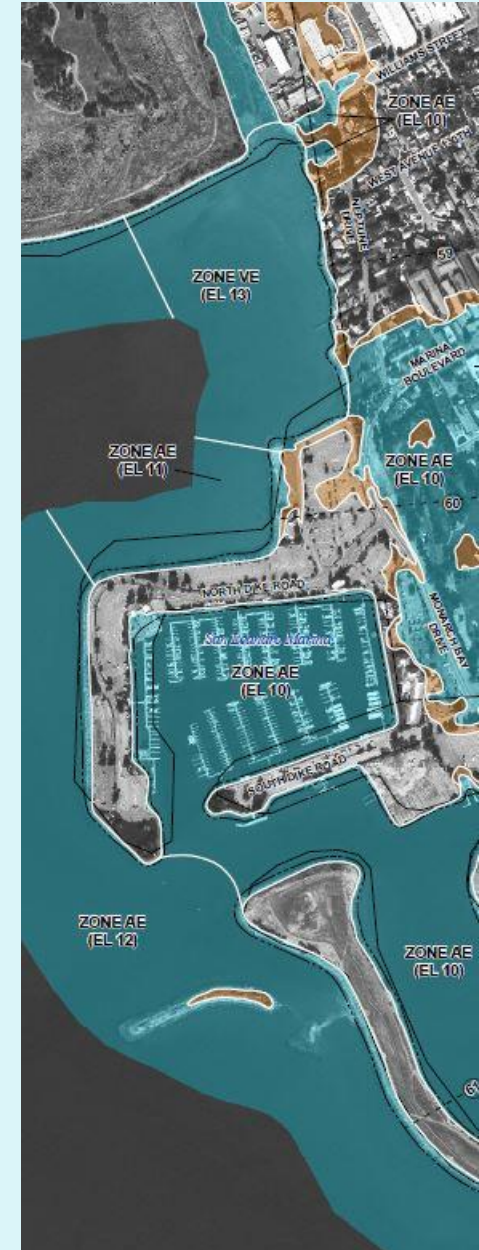


Next Steps

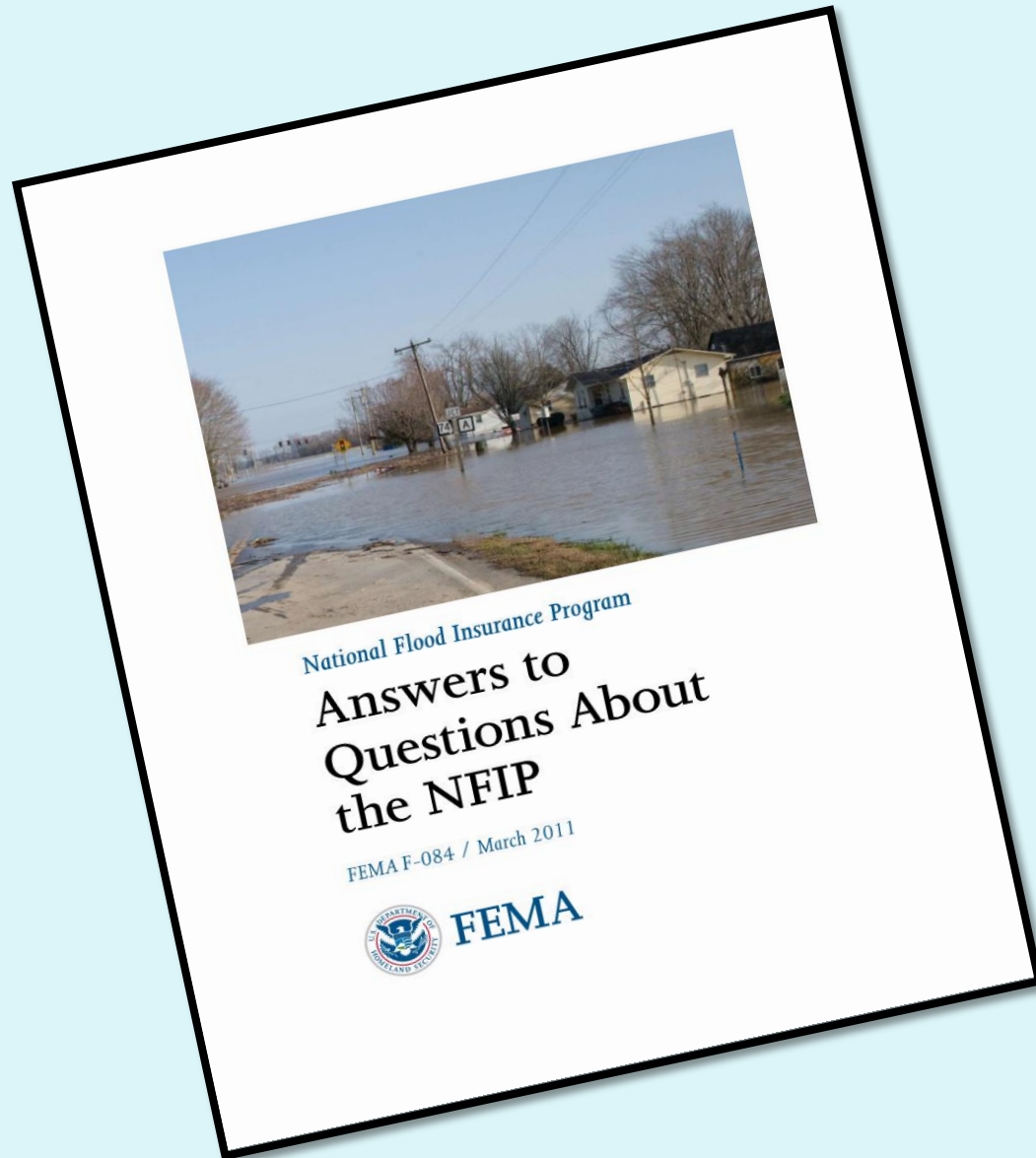
- Point Source 1: Project underway, expected completion 2017
- Point Source 2: A source of funding must be identified, 3 year expected project duration.
Seeking comments from Council on exploring funding options including an assessment district.
- Point Source 3: Project underway, expected completion 2017
- Point Source 4: Property owner considering options

Flood Insurance

- Currently there are approximately xxx properties in the flood zone. Currently 1 in 3 San Leandro properties in the 100 year flood zone have insurance.
- An additional 1,000 properties have been added to the new flood map
- Properties in the 100 year flood zone with a federally backed mortgage are required to purchase flood insurance. FEMA encourages all properties to purchase insurance.
- Properties newly added to the 100 year flood zone can purchase insurance at a discounted rate.



Booklets Available to the Public





Floodplain Management

Navigation

[Building and Safety Services Home](#)

[Building Codes](#)

[Earthquake Retrofit Programs](#)

[Building Fees/Forms/Submittals](#)

[Energy Efficiency Program](#)

[Floodplain Management](#)

[Green Building Programs](#)

[Hiring a Contractor](#)

[Inspection Services](#)

[Online Permit System by Accela](#)

[Permits/Plan Review](#)

[Residential Solar Guidelines and](#)

National Flood Insurance Program

The City of San Leandro is a member of the [National Flood Insurance Program](#), which is administered by the Federal Emergency Management Agency ([FEMA](#)).

FEMA has delineated portions of the City as special flood hazard areas on flood insurance rate maps. Membership in the program allows residents in these special flood hazard areas of the City to obtain federally backed mortgages and disaster assistance in the event of flooding. As part of this program, properties within these areas may be subject to special flood insurance requirements and requires new construction, additions and remodels of existing buildings in designated flood zones to conform to rules that minimize flood damage.

The current Flood Insurance Rate Map (FIRM) for the City of San Leandro was issued on August 3, 2009. The current panels available are 060013C - 0252G, 0254G, 0256G, 0257G, 0258G, 0259G, 0266G, 0267G, 0278G. These maps may be viewed at [FEMA Map](#) by entering a street address and clicking "View."

FEMA is in the process of updating the City of San Leandro's FIRMs. Information, including proposed effective date, can be found at the [Map Update Schedule](#).

Community Rating System

In October 2006, FEMA accepted the City into the [Community Rating System \(CRS\)](#) with a rating of Class 8. The rating provides owners of property in special flood hazard areas up to 5%- 10% reductions in premiums for flood insurance required under the National Flood Insurance Program. Property owners should contact their policy holder and review their policy to make sure they are getting the discount.

Flood Maps, Elevation Certificates, and Other Documents

As a community participating in the National Flood Insurance Program, the City of San Leandro is the repository for flood maps, letters of map revision (LOMR), letters of map amendments (LOMA) and elevation certificates. These documents are available at the [Division of Building & Safety](#) at 835 E. 14th Street. FEMA Flood maps and other FEMA related literature may be found at the [City's Main Library](#) located at 300 Estudillo Avenue.

If you have questions regarding flood zone information for your property, please contact the Division of Building & Safety's - Flood Information Hotline at (510) 577-3413 or email us at jsmithjr@sanleandro.org and provide the following information:

- The property street address that you are inquiring about
- The Assessor's Parcel Number (APN), Subdivision, Lot and Block Numbers, if available.
- The nearest cross street
- Your contact information:
 - Full Name
 - Affiliation
 - Mailing Address
 - Telephone Number
 - Email Address

If you are in or near a special flood hazard area, are you prepared for a flood?

If your property is located in or near a special flood hazard area, please take a look at our [Flood Safety Brochure](#). In this brochure, you will find relevant information for San Leandro residents such as:

- What to do before, during and after a flood?
- How to protect your property from the hazards of flooding
- How to report obstructed or illegal dumping in the City's drainage system
- What station to tune-in to during a storm

Construction in Flood Zones - Substantial Improvement/Damage

If your home or business is below the 100-year flood elevation, the City of San Leandro has flood damage prevention regulations that may affect how you remodel, renovate, or add on to your building. If your home or business sustained structural and/or interior damage, these regulations may affect how you rebuild. The National Flood Insurance Program (NFIP) requires these regulations be adhered to in order to protect you and your property from future flood damage. The City must adopt and enforce flood protection laws in order for federally backed flood insurance to be made available to community residents and property owners. Information about Substantial Improvement and Substantial Damage can be found in [FEMA UNIT 8](#).

- Substantial Damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its "before damage" condition would equal or exceed 50 percent of the market value or replacement cost of the structure before the damage occurred.
[NOTE: The cost of the repairs must include all costs necessary to repair the structure to its "before damage" condition.]
- Substantial Improvement means any reconstruction, rehabilitation, addition or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement.

If a building is "substantially damaged" or "substantially improved" it must be brought into compliance with City of San Leandro's damage prevention regulations, including elevating the building to or above the 100-year flood elevation.

For additional questions about permits and construction in the flood zone, please contact the Division of Building & Safety at (510) 577-3420.

Frequently Asked Questions(FAQ):

[FAQ for Homeowners](#)

[FAQ Flood Zones](#)

[FAQ about the National Flood Insurance Program\(NFIP\)](#)

[FAQ Flood Hazard Mapping](#)

Recommended FEMA Web Pages and Sites:

- [General Flood Information](#) - Learn about flood events, how to prepare for a flood, and what to do during a flood to stay safe.
- [Flood Insurance \(Floodsmart.gov\)](#) - Floods are the most common hazard in the US, and most homeowners insurance doesn't cover flood damage. Everyone is at risk of flooding. Buy flood insurance.
- [Map Service Center\(MSC\)](#) - View Flood Insurance Rate Maps (FIRMs) free online. FIRMs, as well as Letters of Map Revision (LOMRs), can also be purchased and downloaded.
- [Flood Hazard Mapping \(FHM\)](#) - Find forms, documents, software, tutorials, and more data associated with the creation and modification of FIRMs.
- [Protecting Your Home](#) - How to protect your property from flooding and other disasters.
- [Flood Safety Tips](#) - There are several things you can do to minimize losses in your home and ensure your family's safety.

Timeline

- S.F. Bay area study begins: 2011
- Floodplain Mapping begins: 2012
- Preliminary Maps released: 4/16/2015
- Appeal Period Start Date: 11/6/2015
- Appeal Period End Date: 2/6/2016
- Projected Effective Date: 3/7/2017

This FIRM revision is currently on hold and the schedule for finalization is unknown due to the submittal of an appeal. FEMA needs to resolve this appeal before an updated schedule can be developed.

Questions?