# Marina Lagoon Ad-Hoc Committee

## Lagoon Projects, Storm Drain Master Plan, and El Niño Wet Weather Preparedness

**October 13, 2026 | 6:00 – 7:30 pm**
City Plaza, 1900 O'Farrell St, 3rd Floor

**Public Works Department**
James Yang, PE, Senior Engineer
Jimmy Vo, PE, Engineering Manager
Katherine Sheehan, PE, Deputy Director
Matt Fabry, PE, Director

# Agenda

1

## Lagoon Project Updates

Marina Lagoon Spot Dredging, Physical Modeling Study, and Short-term / Long-Term Pump Station Projects

2

## Storm Drain Master Plan

Findings and recommendations, funding, and next steps

3

## Wet Weather Preparedness: El Niño Winter 2026/27

What to expect, what the City is doing, and what households can do now

4

## Questions and Discussion

Open Q&A with Public Works staff

# Marina Lagoon Spot Dredging: Work Completed

## 1,762 CY

of sediment dredged from Marina Lagoon

## 2 locations

Leslie Creek and Borel Creek entry points

### REMAINING STEPS

City will be closing out the project, which includes documenting any work contractor needs to perform to restore site to pre-construction conditions and final reporting to regulatory agencies.





# Pump Station Physical Modeling Project

### WHAT

A physical model of the pump station hydraulics, used to test how water moves through the pump bays.

### WHY

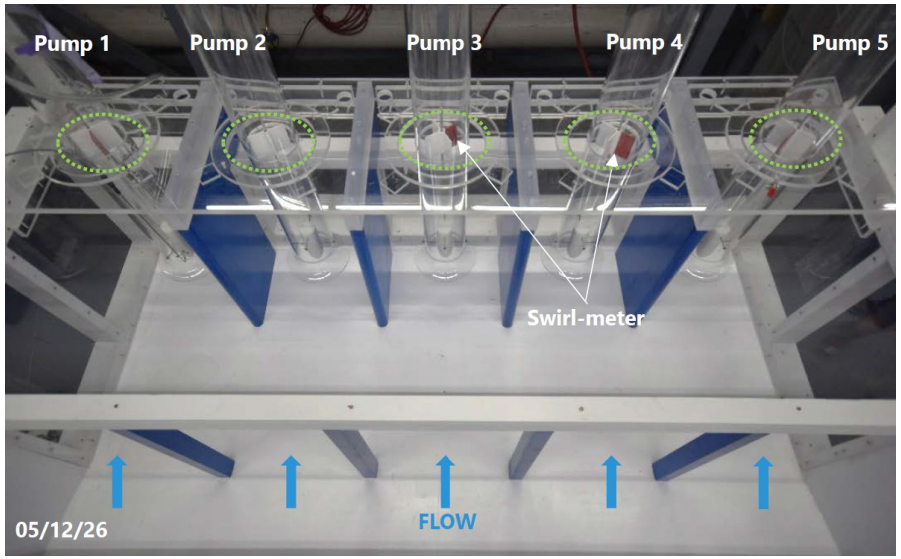
Tests performance using different combinations of pumps and lagoon levels.

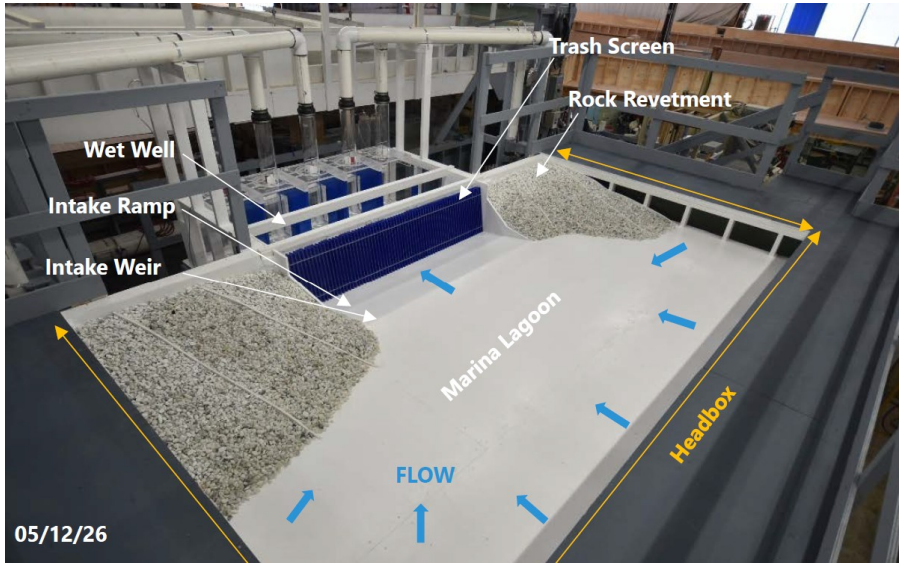
### RESULTS

Model testing showed improvements required to achieve hydraulic performance standards.

### WHAT'S NEXT

City's consultant will provide recommendations related to operating levels. The trash rack reconfiguration and wet well improvements can now move into planning.



# Marina Lagoon Pump Station: Where Things Stand



**40+**
years old

**75%**
of City drains here

**5**
pumps

### TODAY

The City's most critical flood control facility, receiving drainage from about 75% of the City.

### WHAT IT NEEDS

Equipment is beyond its useful life and requires improvements to extend longevity and reliability (short-term project) and eventually will need additional pumps and replacement or rehabilitation of existing pumps (long-term project).

### LOOKING AHEAD

Both short-term ($7.25M) and long-term ($100M) projects are significant capital expenditures. City exploring funding and financing of these projects, including seeking congressional funding.

# Pump Station Short-Term Improvements: $7.25M

| Task | Status |
|---|---|
| Complete a physical hydraulic model study | **Completed July 2026** |
| Upgrade SCADA to report wet well water level | **Completed January 2026** |
| Rehabilitate the cathodic protection system | **Completed March 2025** |
| Install backup pump level controls with mechanical floats | **Partially complete** |
| Conduct a detailed condition assessment | **Pending** |
| Reconfigure the trash rack | **Pending** |
| Replace or rehabilitate remaining original gear boxes | **Pending** |
| Complete improvements to the existing wet well | **Pending** |

# Pump Station Long-Term Improvements: $100M

1

### BUILD A NEW PUMP STATION

Next to the existing station, adding capacity for low lagoon and high Bay conditions. Estimated two pumps.

2

### RECONSTRUCT THE EXISTING STATION

All five pumps and motors replaced with comparable capacity, plus improved hydraulic, modernized mechanical, electrical, control, and debris-handling systems.

### TIMING AND FUNDING

A project of this scale will require federal funding. The City is currently authorized under the 2024 Water Resources Development Act for a project study related to flood risk reduction, and is engaging with federal agencies on paths to pursue funding.



**$100M**

estimated cost of the long-term improvements, the largest project in the Master Plan

# Storm Drain Master Plan: Findings at a Glance

**Presented to City Council on October 5, 2026.** Council approved a resolution to adopt the 2026 Storm Drain Master Plan.

**138**

projects identified citywide

**11**

"Very High" priority projects, recommended over the next 10–15 years

**$224.5M**

overall program cost, down from roughly $232.6M

**$124.5M**

program cost excluding Marina Lagoon Pump Station improvements

## HOW THE PLAN WAS BUILT

Citywide condition assessment of inlets, pipes, channels, and pump stations

System model calibrated against the record 1955 storm

2050 and 2100 climate change scenarios evaluated

Results ranked into a prioritized capital improvement list

# Master Plan: What Happens Next

### YEAR 1: INITIATE DESIGN

- 4000 Pacific PS package (short-term, long-term, 42nd Ave underpass)
- Grant & Sunnybrae capacity improvements
- Bettina–Kingridge pipe replacements
- Marina Lagoon PS short-term improvements
- Norton Street ditch improvements

### YEAR 2: ALTERNATIVES ANALYSIS

- 16th Avenue Channel / Highway 101 crossing
- Marina Lagoon PS long-term improvements

### ALSO UNDERWAY

- Evaluate funding options for Very High projects
- Procure design consultants for 42nd Ave, Bettina–Kingridge, and Grant Street
- Maintain the flood mapping tool
- Evaluate removing more properties from FEMA flood zones, including the Hillsdale Corridor

# Master Plan: How to Engage

START HERE

## Chapter 7

Capital Improvement Program

**The chapter with the most information for residents.**

Read it first, then use the appendices to look up your area.

GO DEEPER IN THE APPENDICES

### Appendix I

**Model result maps**

See modeled flooding for various storm events, today and with the projects in place.

### Appendix K

**CIP maps**

See where recommended capital improvement projects are located.

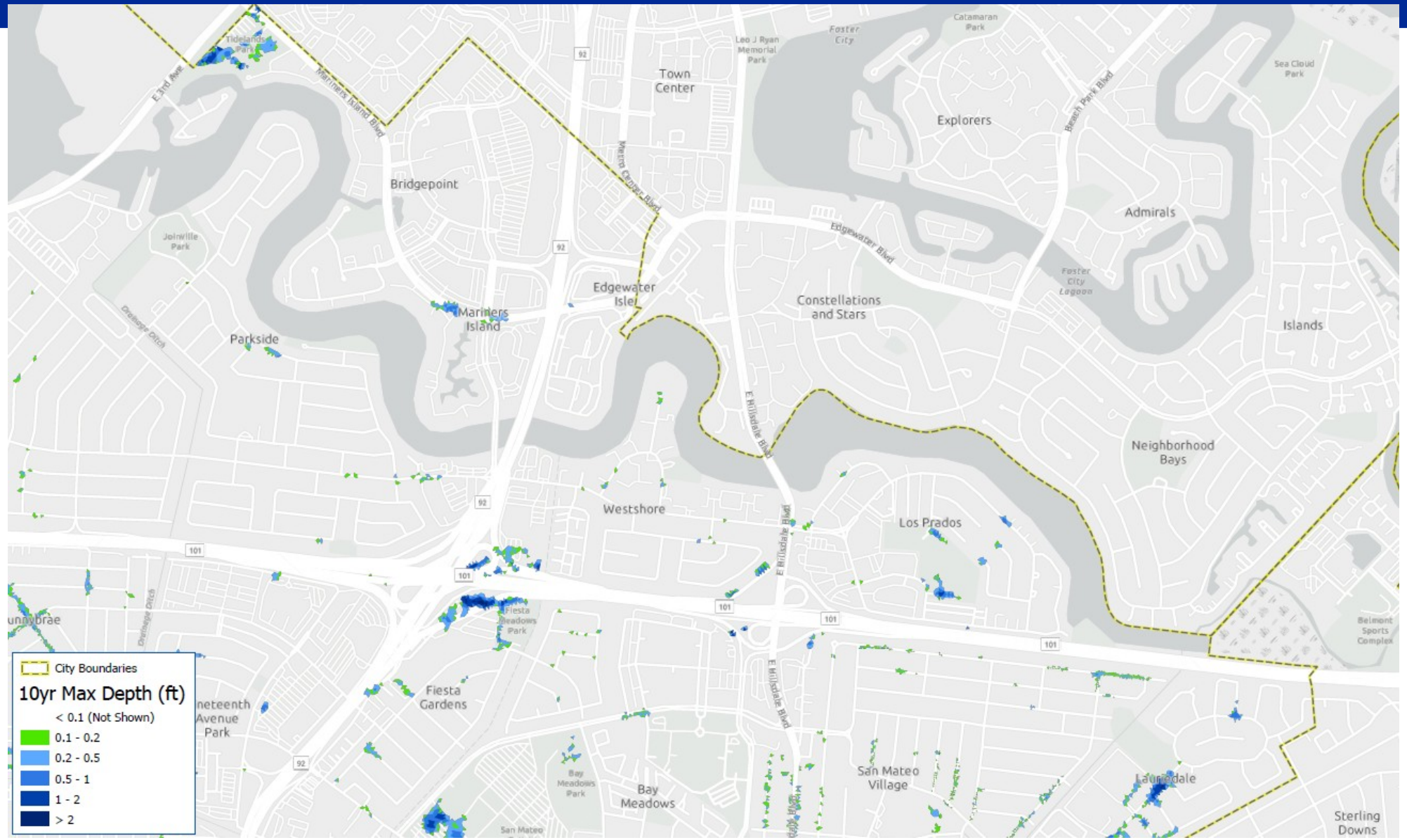
### Appendix N

**Very High priority project detail sheets**

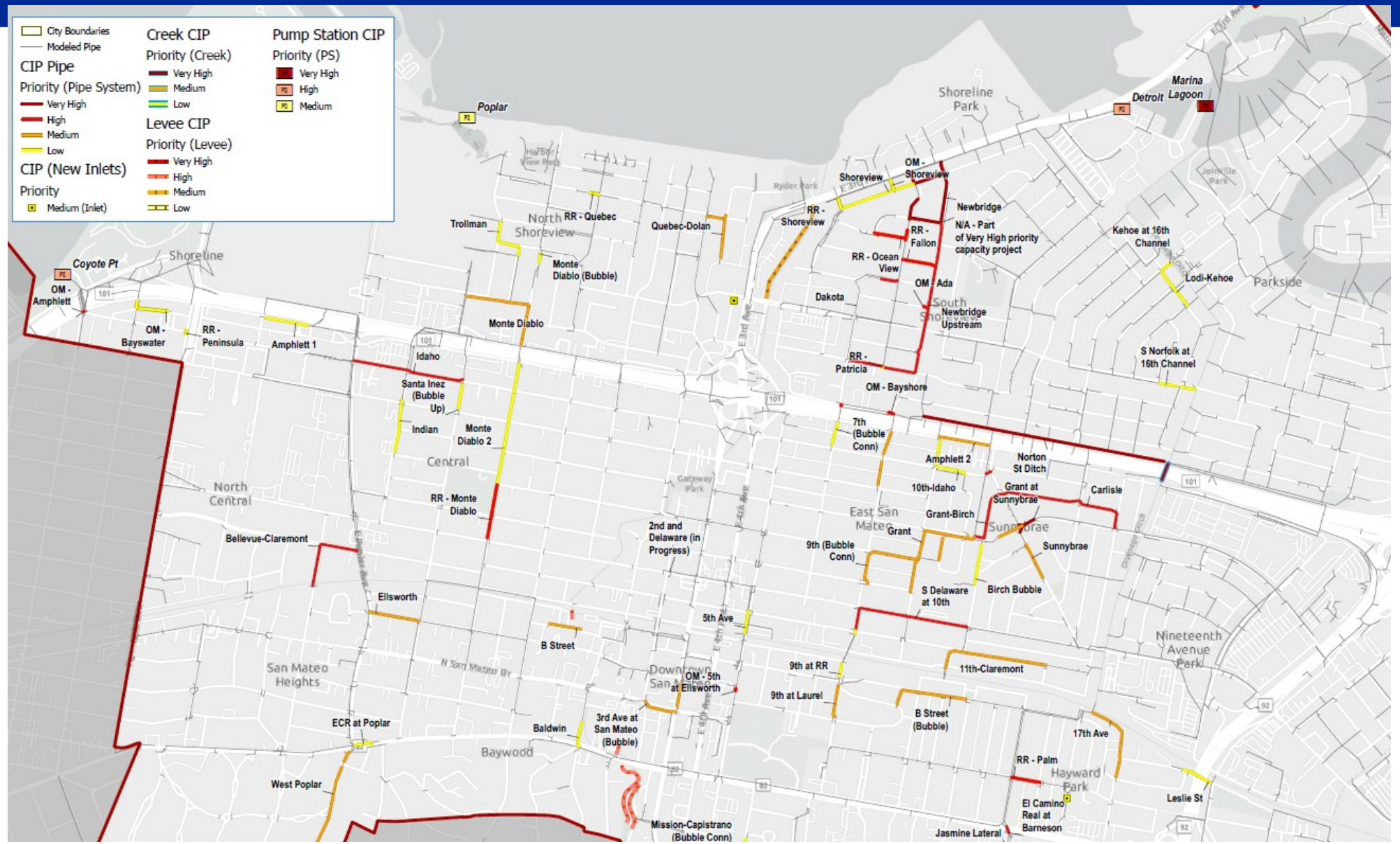
Maps and descriptions of the improvements for the Very High priority projects.

**Find the plan online:** cityofsanmateo.org/4953/Storm-Drain-Master-Plan

# Master Plan: How to Engage



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**City of San Mateo**
**Storm Drain Master Plan**

Bettina-Kingridge (RR)

Improvement Project
San Mateo, California
7/9/2026

**Legend**

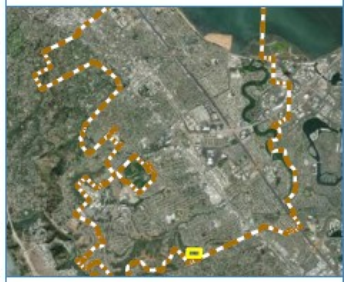
- City Boundary
- Other Storm Drain Pipes

**Structures**

- Manhole
- Cleanout

**Priority Level**

- Very High
- High
- Medium
- Low
- Pump Stations
- CIP Pipes
- Repair Replacement
- Creeks



Horizontal Datum: NAD 1983 StatePlane California III FIPS 0403 (US Feet)
Vertical Datum: NAVD88

0 75 150
Feet

SCHAAF & WHEELER
CONSULTING CIVIL ENGINEERS

| Improvement Project | Type | Cost ($) | Priority | Summary |
|---|---|---|---|---|
| Bettina-Kingridge (RR) | Repair & Replacement | $647,000 | Very High Factors: Very Poor Structural NASSCO Score; Continuous Length in Poor Condition | This project would replace existing 15-inch pipe in poor condition on Newlands, Bettina, and 42nd Ave above Kingridge Drive. The reach just downstream, from 42nd Ave to Kingridge was also identified as structurally deficient and was recently replaced. |

# El Niño Winter 2026/27



**A very strong El Niño raises the odds of a wetter, harder winter. We know how to get ready for winter; this year, we start earlier.**

- Make a plan
- Build a kit
- Know your sandbag site
- Sign up for SMC Alert

# El Niño Winter 2026/27: What We Know

**>90%**

chance of a very strong El Niño this fall and winter

**75%**

chance the event will be stronger than any El Niño since 1950

**Dec–Apr**

above-normal precipitation favored for much of coastal California; highest odds Jan–Mar

### KNOWN NOW

- NOAA's El Niño Advisory is in effect; conditions are present and strengthening
- King Tide dates are known, weather-dependent
- The Governor's September 21 proclamation is a statewide preparedness step

### NOAA GUIDANCE

***"A very strong El Niño raises the odds of a stormy winter. It doesn't guarantee one. Getting ready costs little and pays off either way."***

# Two Kinds of Flood Risk

HIGHER CONFIDENCE

## COASTAL AND TIDAL FLOODING

- El Niño tends to raise water levels along the coast
- Low shoreline roads and paths can flood, even on a sunny day

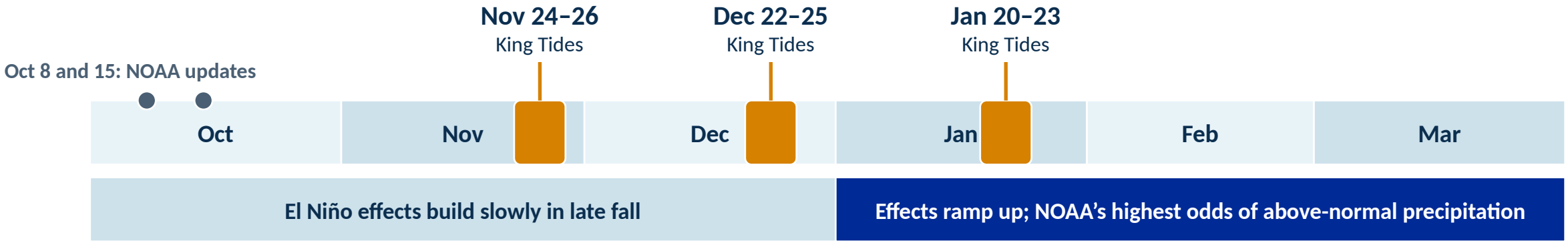
STORM BY STORM

## RAIN FLOODING

- Depends on individual storms and can’t be predicted weeks ahead
- NOAA expects El Niño’s effects to build slowly in late fall and ramp up in mid to late winter
- SMC Emergency Management will share storm-specific information as forecasts firm up

**A quiet December doesn’t mean El Niño fizzled. Keep preparing through March.**

# The Season Ahead: Key Dates




### FLOOD INSURANCE CONSIDERATIONS

New flood policies usually take about 30 days to start.

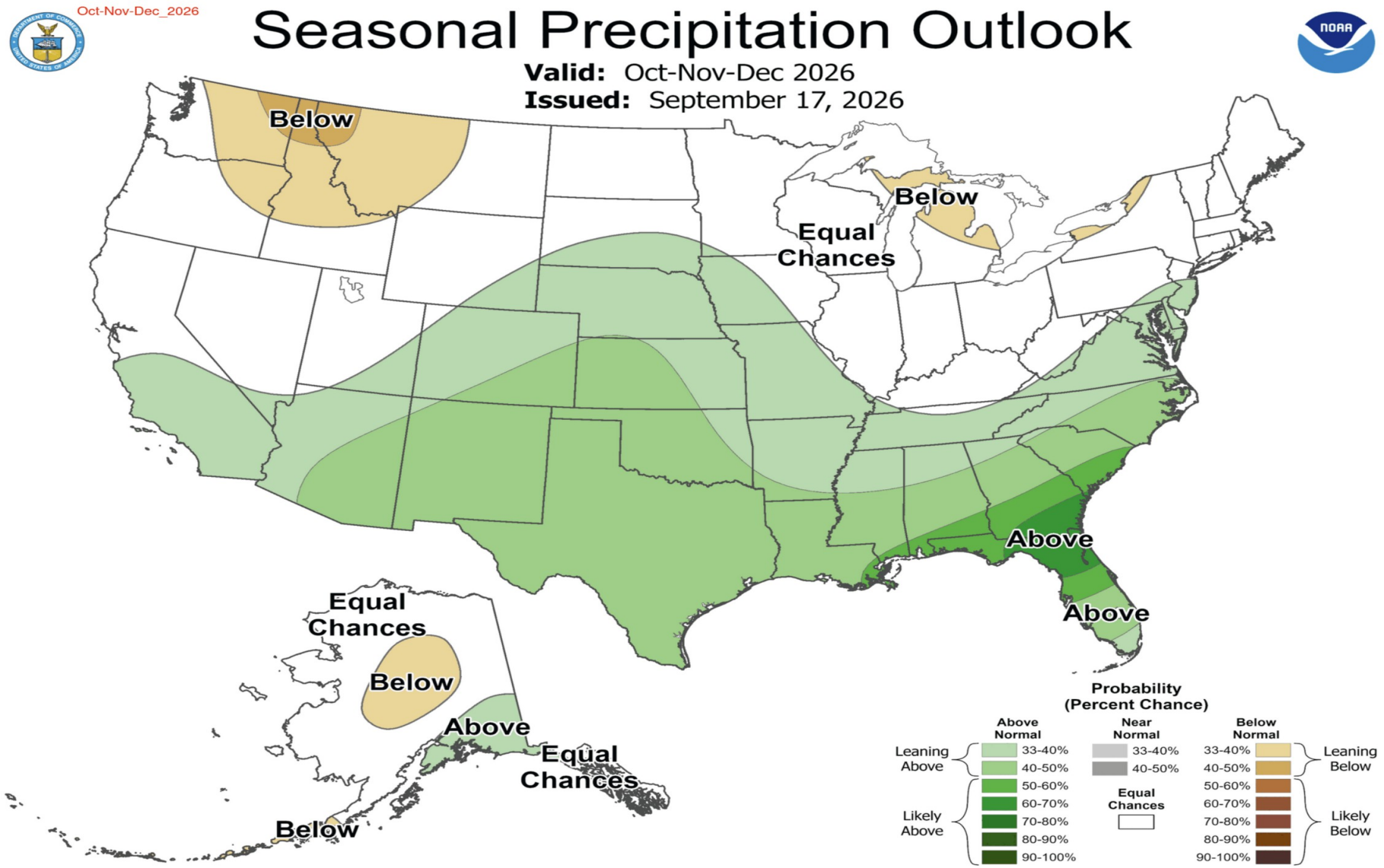
### THREE KING TIDE WINDOWS

The highest tides of the year can flood low shoreline roads even on a sunny day. The first two overlap Thanksgiving and Christmas travel.

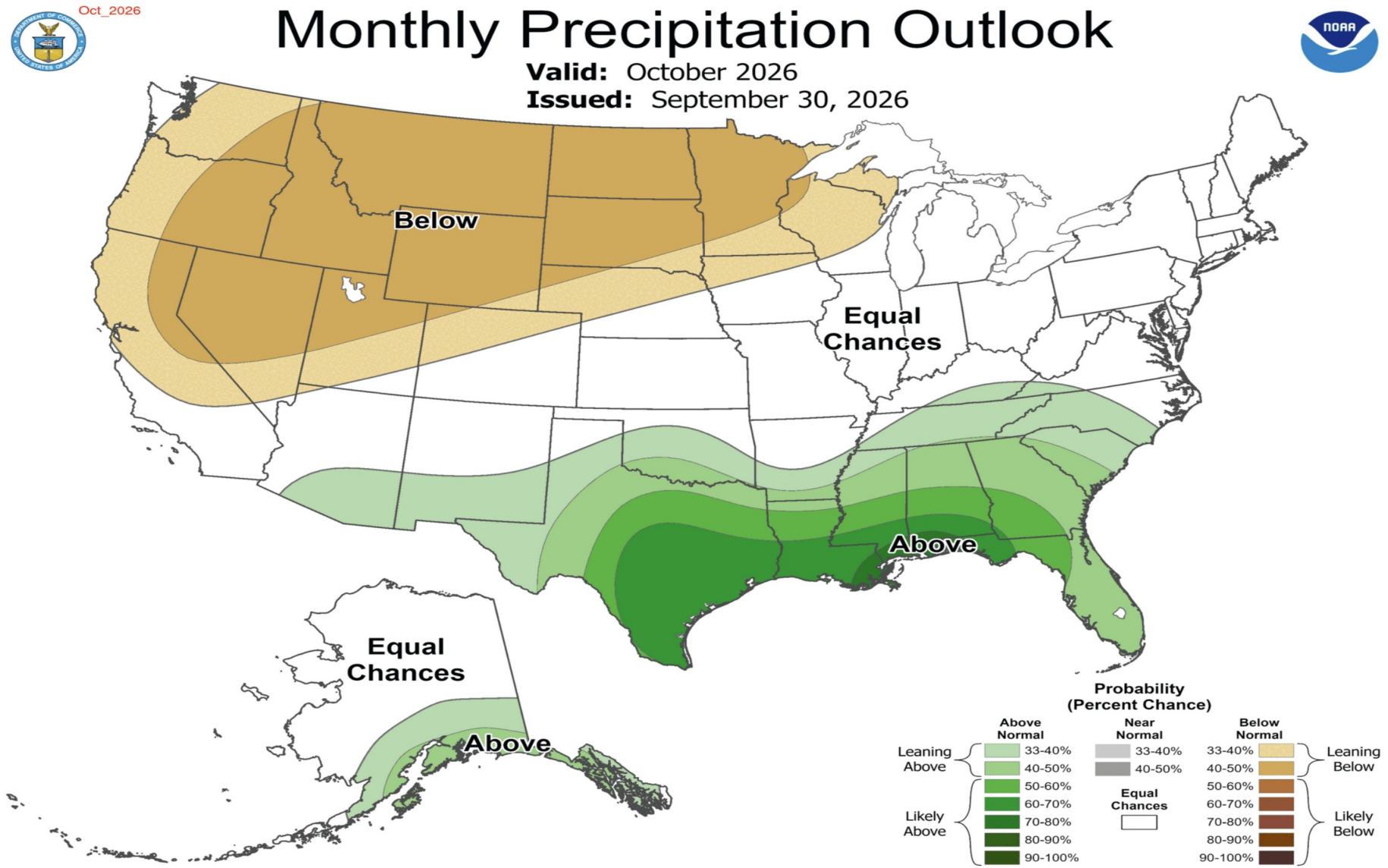
### JANUARY–MARCH

NOAA's highest odds of above-normal precipitation. A storm arriving during a King Tide window is the scenario the County plans around.

# El Niño Winter 2026/27: October NOAA Guidance



# El Niño Winter 2026/27: October NOAA Guidance



# Wet Weather Prep: Coordination

## Interdepartmental coordination

- Twice-weekly wet weather meetings (Oct–Apr) share forecasts across all storm response departments.
- Updated Public Works pre-, during- and post-storm procedures.

## Regional partnerships and collaborations

- Monthly meetings with San Franciso Public Utilities Commission (SFPUC) on Crystal Springs Reservoir and San Mateo Creek
- With support of the City County Engineers Association (CCEA), coordinated a countywide online resource-sharing preparedness hub.
- Coordinating with Caltrans on maintenance of critical assets, including large culverts under 101.

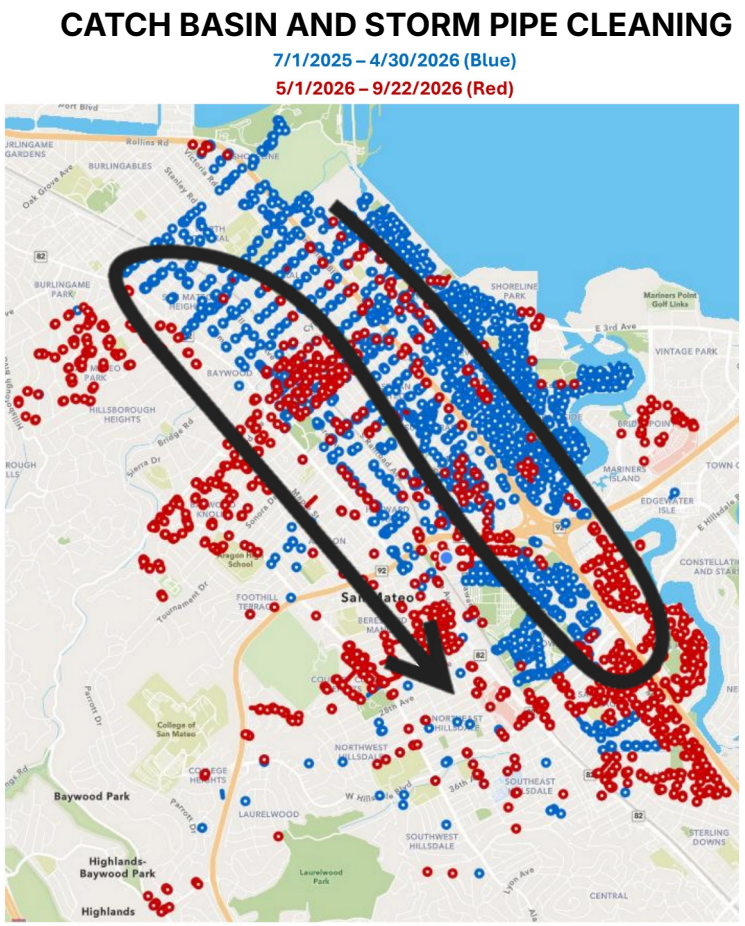
## Emergency response planning

- Working with Office of Emergency Services on a severe storm response guide and an emergency operations plan
- Multi-city EOC exercise with Foster City and Belmont.

## Public information

- Use of the San Mateo County Emergency Management (SMC EM) Wet Weather Toolkit, coordinated across 38 jurisdictions.
- Updating the City’s storm preparedness and sandbag web pages with El Niño information.
- Sandbag station "how to" video

# Wet Weather Prep: Storm Drain System




## Catch basins and storm pipes

Since May 2026, 1,600 catch basins and 750 pipes cleaned. Since July 2025, over 4,900 catch basins and 2,700 pipes cleaned.

## Creek vegetation removal

Will be completed at the 16th Ave and 19th Ave channels. Permits are in progress for Laurel Creek between 39th and 40th Aves.

## Trash capture devices and racks

All City-owned trash capture devices and trash racks are inspected and cleaned every year.

## Storm response

Equipment is available for storm response and traffic control in case of flooding, and dedicated staff maintain the storm system.

# Resources and Links

## CITY OF SAN MATEO

**Sandbag stations (open since Sept 25)**
cityofsanmateo.org/4750/Sandbag-Information

**Adopt-A-Drain**
cityofsanmateo.org/3715/Adopt-A-Drain

**Storm and flood preparedness tips and resources**
cityofsanmateo.org/1938/Storm-Flood-Preparedness

**Storm Drain Master Plan**
cityofsanmateo.org/4953/Storm-Drain-Master-Plan

**Past Ad-Hoc presentations (Marina Lagoon page)**
cityofsanmateo.org/1064/Marina-Lagoon

**Historic Flooding Public Comment Map**
Stays live after the Master Plan is adopted. Linked from the Master Plan page and the Flood Preparedness page.

## SAN MATEO COUNTY AND PARTNERS

**SMC Alert sign-up and updates**
smcalert.info

**County winter weather page: 4 steps, El Niño information**
smcgov.org/dem/winter-weather-preparedness

**Evacuation zone lookup**
protect.genasys.com

**FEMA flood map by address**
msc.fema.gov

**Flood insurance information**
floodsmart.gov

**King Tide dates and local tide times**
coastal.ca.gov/kingtides

# Questions & Discussion

