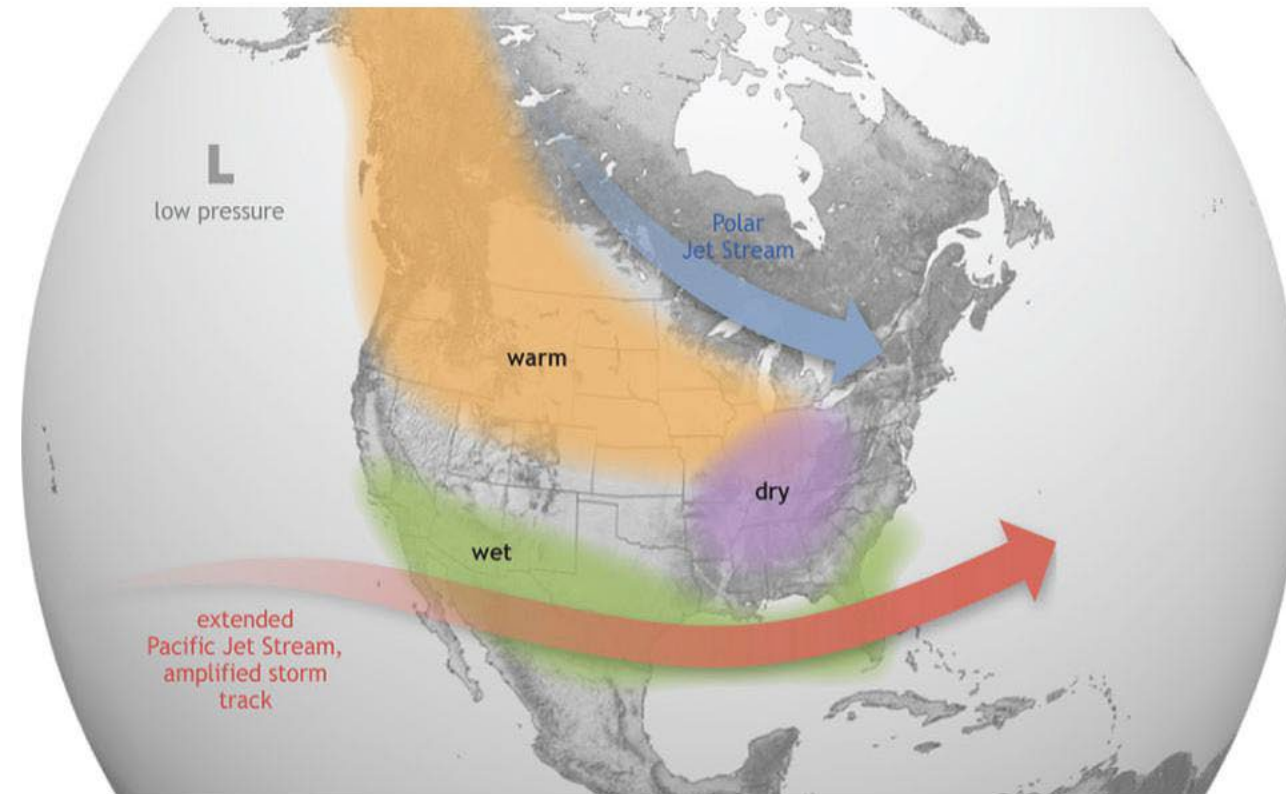
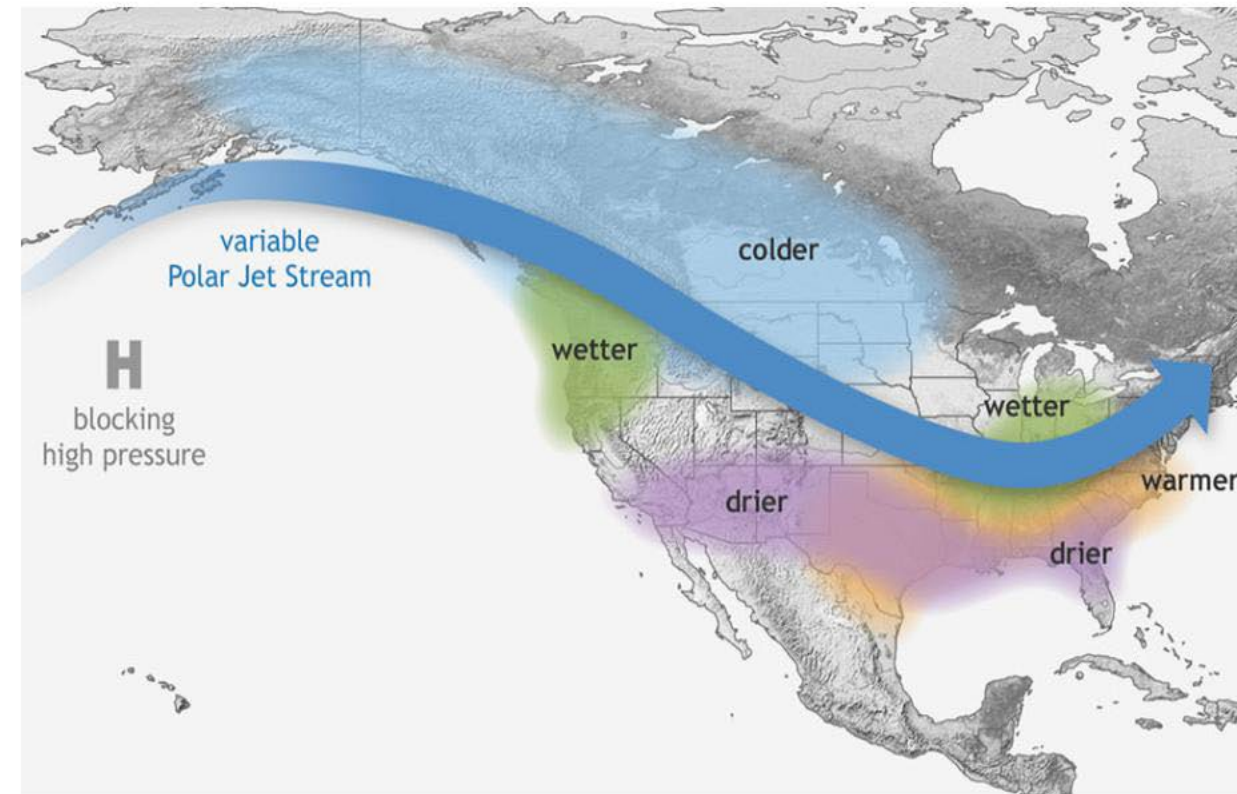


What are El Niño and La Niña?

El Niño and La Niña are climate patterns in the Pacific Ocean that can affect weather worldwide.



During El Niño



During La Niña



Office of Emergency Services

Citywide El Niño Preparedness Objectives

1. Identify and analyze gaps in current capabilities, and deliver clear, actionable recommendations to resolve identified deficiencies.
2. Coordinate across City departments to develop integrated plans and procedures, and propose policy enhancements that support citywide preparedness.
3. Design and implement a comprehensive public communications campaign that promotes personal preparedness, informs the community of the City's readiness efforts, and highlights available resources.
4. Ensure all projects, initiatives, and communications adhere to City policies and meet standards for accessibility, equity, and inclusiveness.
5. Enhance interagency collaboration by strengthening coordination with external partners, including governmental agencies, NGOs, faith-based organizations (FBOs), and community-based organizations (CBOs).

Citywide El Niño Preparedness Working Group

Sub-Groups:

1. Communications / Webpage / Mapping
2. Community Engagement
3. Sandbags
4. Evacuation
5. Emergency Access Points
6. Extreme Temperature Response
7. EOC Logistics and Finance
8. Debris Removal
9. Shoreline and Bay Protective Berms

El Nino Working Group

+ New ▾ Page details Preview Analytics



CITY OF SAN DIEGO

El Niño Working Group

This page was created to provide a collaborative space for City departments to coordinate preparedness efforts for El Niño activity in our city.

> General ▾ Share ... + Create or upload

All D... ▾

Name ▾	Modified ▾	Modified
Administration	Monday at 11:51 AM	Ivers, Du
Communications and Webpage Sub-Group	July 2	Ivers, Du
Debris Management Sub-Group	July 2	Ivers, Du
Emergency Access Points Sub-Group	July 2	Ivers, Du

Resources

- Planner_El Nino Working Group
- Contact List
- Meeting Agenda Archive
- Email OES Program Manager
- 2_Sub Group Project Charter
- 1_Sub Group Work Plan

Additional Working Group Deliverables

- Accessible River Access Points for Swiftwater Rescue Teams
- Winter Weather Workshop
- City Response Tabletop Exercise
- Emergency Operations Center Responder Training
- Public Sandbag Distribution
- Extreme Temperature Response Planning
- Critical Vendor & Contact Readiness Assessment



Stay Ready San Diego!

It's everyone's responsibility.



Make a Plan



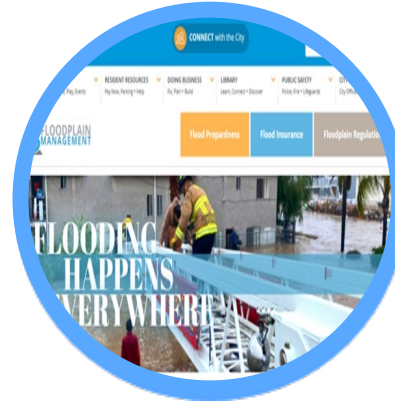
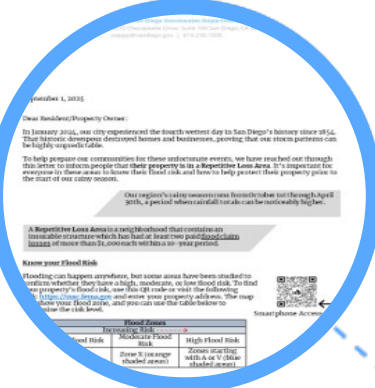
Build a Kit



Stay Informed

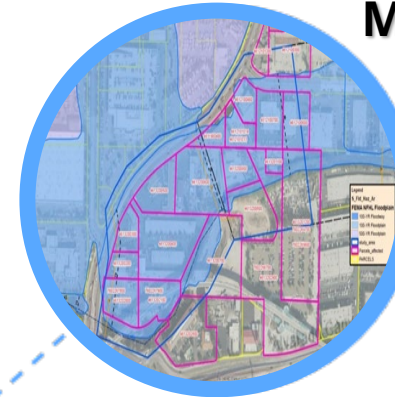


REPETITIVE FLOOD LOSS NOTIFICATIONS



WEBSITE/SOCIAL MEDIA UPDATES

PRIVATE CHANNEL MAINTENANCE LETTERS

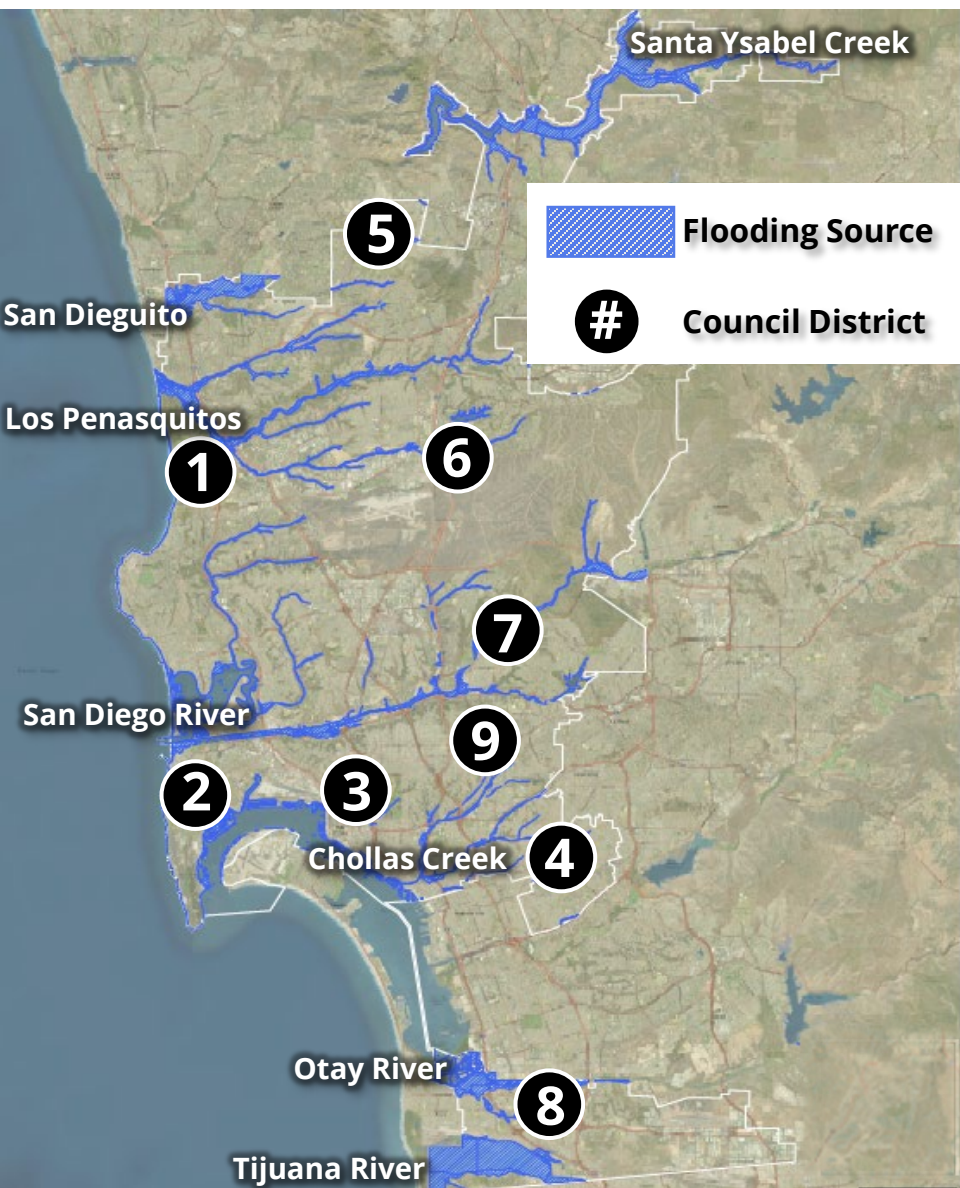


7000+ ANNUAL FLOODPLAIN MAILERS



LIBRARY & REC CENTER ACCESS TO FLOOD MATERIAL





→ **15,000**

ACRES OF HIGH FLOOD RISK AREAS



→ **6,900**

PARCELS WITH INSURABLE STRUCTURES AT RISK



→ **11,000**

FAMILIES AND BUSINESS OWNERS AT RISK



→ **\$10B**

BILLIONS IN ASSESSED PROPERTY VALUE AT RISK

APPROXIMATE VALUES BASED ON BEST AVAILABLE DATA AS OF SEPTEMBER 2025



Community Rating System Participant Since 2022/2023

FEMA's CRS PROVIDES THE CITY

- UP TO A 45% DISCOUNT ON FLOOD INSURANCE

CITY'S REGULATORY RESPONSIBILITIES

- MULTIPLE YEARLY OUTREACH EFFORTS
- STRICTER FLOOD PROTECTION STANDARDS
- FLOOD WARNING & RESPONSE STANDARDS
- ACCESSIBLE FLOOD ACTIVITY RECORDS
- YEARLY REGULATORY AUDITS



Average Yearly Residential
Flood Insurance Premium = \$1,132

Current
CRS Class

7

Current NFIP
Premium Discount

15%

Current
City of SD
Class

72 points away

Targeted
Future Class
FY 2027

CRS CLASS	10	9	8	7	6	5	4	3	2	1
DISCOUNT	0%	5%	10%	15%	20%	25%	30%	35%	40%	45%
Approx. Average Savings per Policy	\$0	\$56	\$113	\$169	\$226	\$283	\$339	\$395	\$452	\$509

SAN DIEGO WATERSHEDS AND CITY JURISDICTION



213k Acres

86k Storm Drain Assets

6 Watershed Areas

CITY OF SAN DIEGO STORM DRAIN SYSTEM

The City manages a large municipal separate storm sewer system (MS4) that conveys storm water runoff from natural and developed areas to receiving waters such as lakes, rivers, creeks, streams, lagoons, and the Pacific Ocean.

The City's MS4 system is an interconnected system of natural drainages and constructed drains, pipes, and channels. Collectively, the MS4 functions to convey drainage flows from impervious

surfaces to receiving waters to protect the life and property of the City's citizens from potential flooding.

Federal, state, and local regulations require the City to meet specific water quality standards in receiving waters, and the City complies by conducting studies, developing plans, and implementing pollution prevention programs and MS4 improvement projects.

DRAINAGE CHANNELS

69+miles

Channels

15

Stormwater
Pump
Stations

LEVEES

6+miles

USACE

6+miles

FEMA

STORM DRAIN

1k+miles

Storm
Drain Pipe

55

Dry
Weather
Diversions

391

Structural
BMPs

Storm Drains, Pipes & Components - Fiscal Year 2026

- Inspected all 32,811 storm drain inlets & clean outs July 2025 - May 2026
- Debris removal performed upon inspection or scheduled for cleaning by Vactor trucks
- Performed 1,594 additional inspections/cleanings in Tijuana River, Chollas Creek, San Diego Bay, San Diego River, and Los Peñasquitos Watersheds in June 2026
- Replaced 1.52 miles of deteriorated pipe through Capital Improvement Projects
- Responded to 4,176 service notifications related to pipes, drain components, hardscape, right-of-way



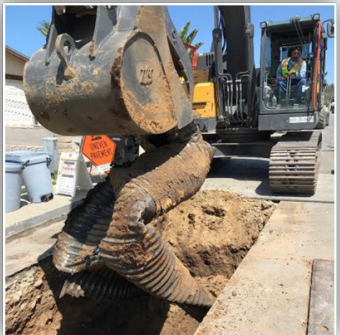
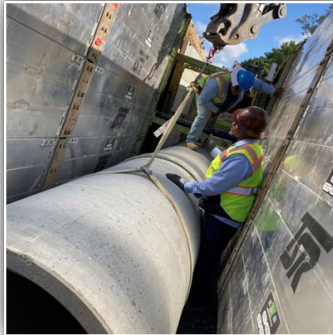
CD1	CD2	CD3	CD4	CD5	CD6	CD7	CD8	CD9
506	563	801	408	304	270	335	443	545

High Risk Corrugated Metal Pipe (CMP) Inventory



Current CMP Inventory
26 miles

CMP to be replaced with
WIFIA investment
6 miles

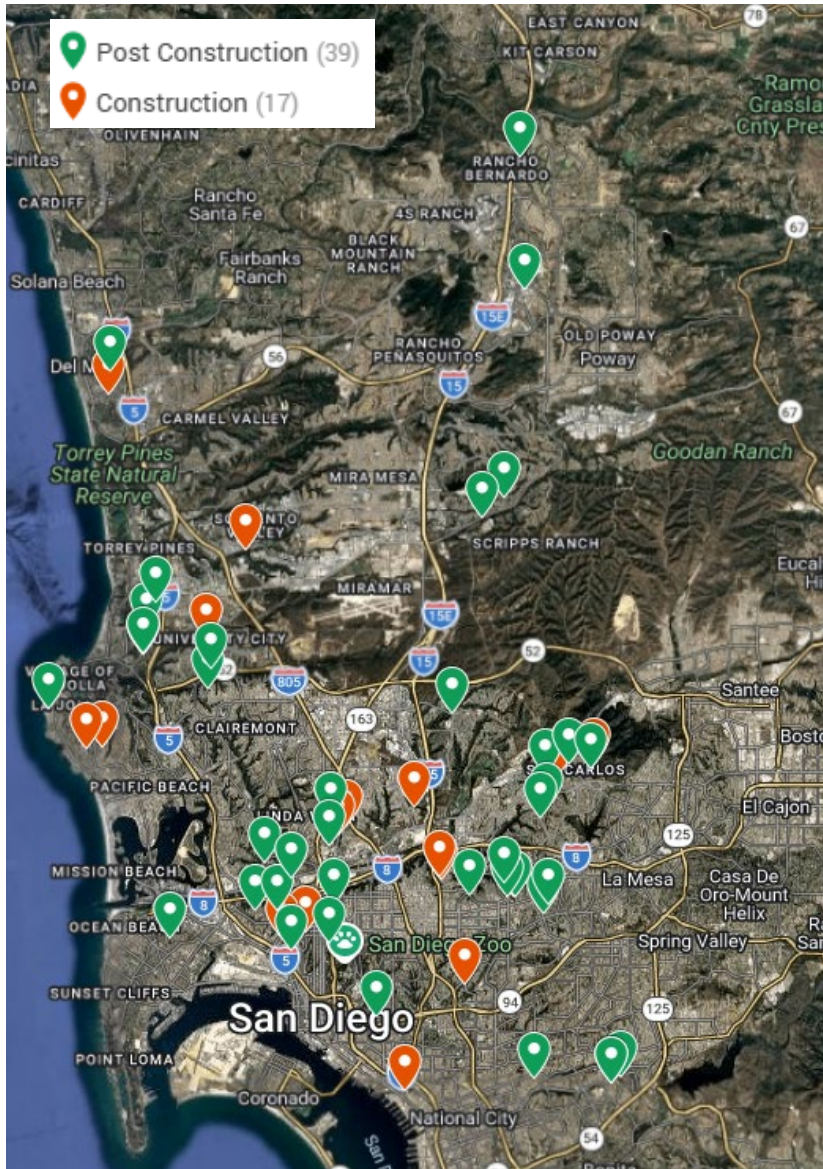


CMP Inventory after WIFIA
20 miles

Further assessment is needed to better understand full CMP inventory

- Assess magnitude of the backlog
- Identify staff and resources required to clear backlog and maintain system
- As-Built digitization
- Real-time asset updates
- Update asset conditions and attributes
- Add new assets into our inventory

Emergency Stormwater CLPs – Past 5 Years



Argonne Ct



Syracuse Avenue



World Trade Drive



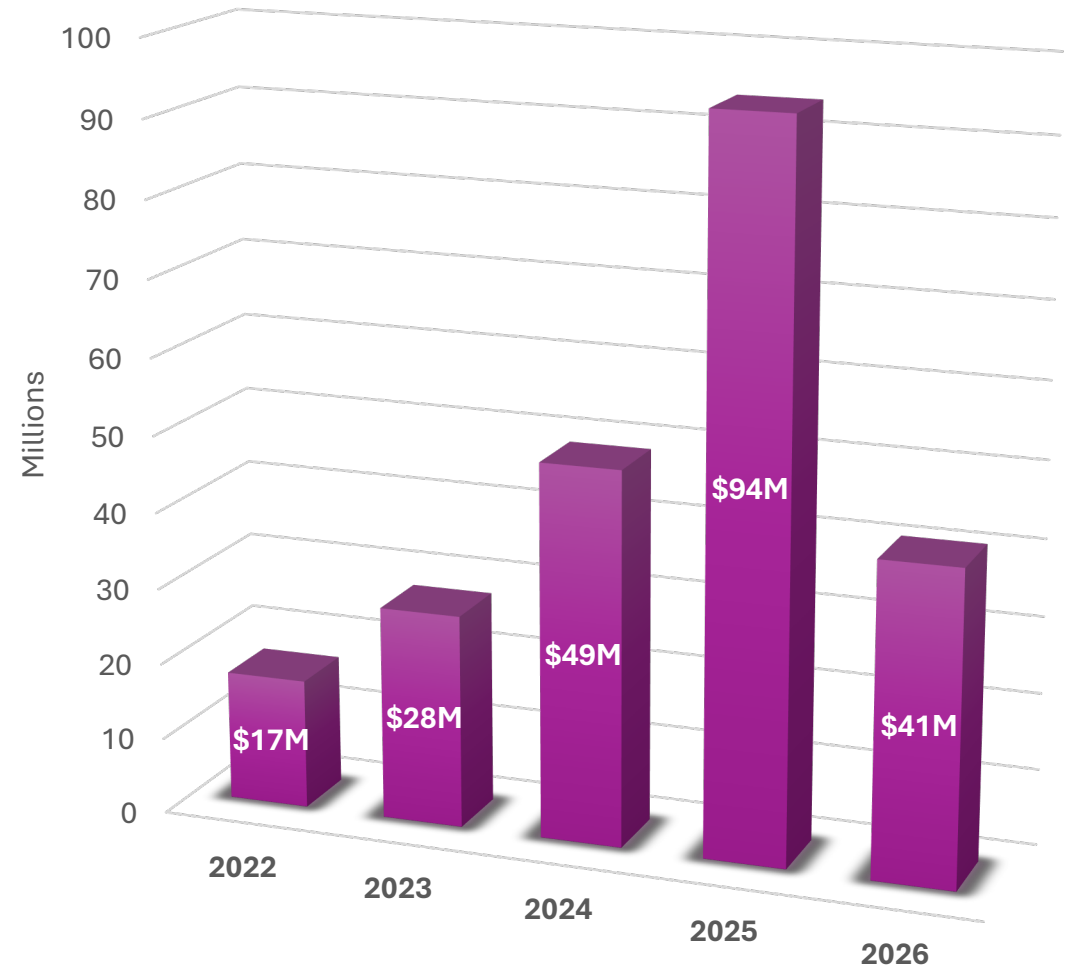
7th Ave



\$230M in past 5 years

\$30M allocated in FY27 adopted budget

Allocated Budget to Stormwater Emergency Projects



SAN DIEGO WATERSHEDS AND CITY JURISDICTION



213k Acres
86k Storm Drain Assets
6 Watershed Areas

CITY OF SAN DIEGO STORM DRAIN SYSTEM

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surfaces to receiving waters to protect the life and property of the City's citizens from potential flooding.

Federal, state, and local regulations require the City to meet specific water quality standards in receiving waters, and the City complies by conducting studies, developing plans, and implementing pollution prevention programs and MS4 improvement projects.

DRAINAGE CHANNELS
69+miles
Channels

15
Stormwater
Pump
Stations

LEVEES
6+miles
USACE
6+miles
FEMA

STORM DRAIN
1k+miles
Storm
Drain Pipe
55
Dry
Weather
Diversions

391
Structural
BMPs

Channel Maintenance – Fiscal Year 2026

Oceanview Channel (CD4) – Before and After

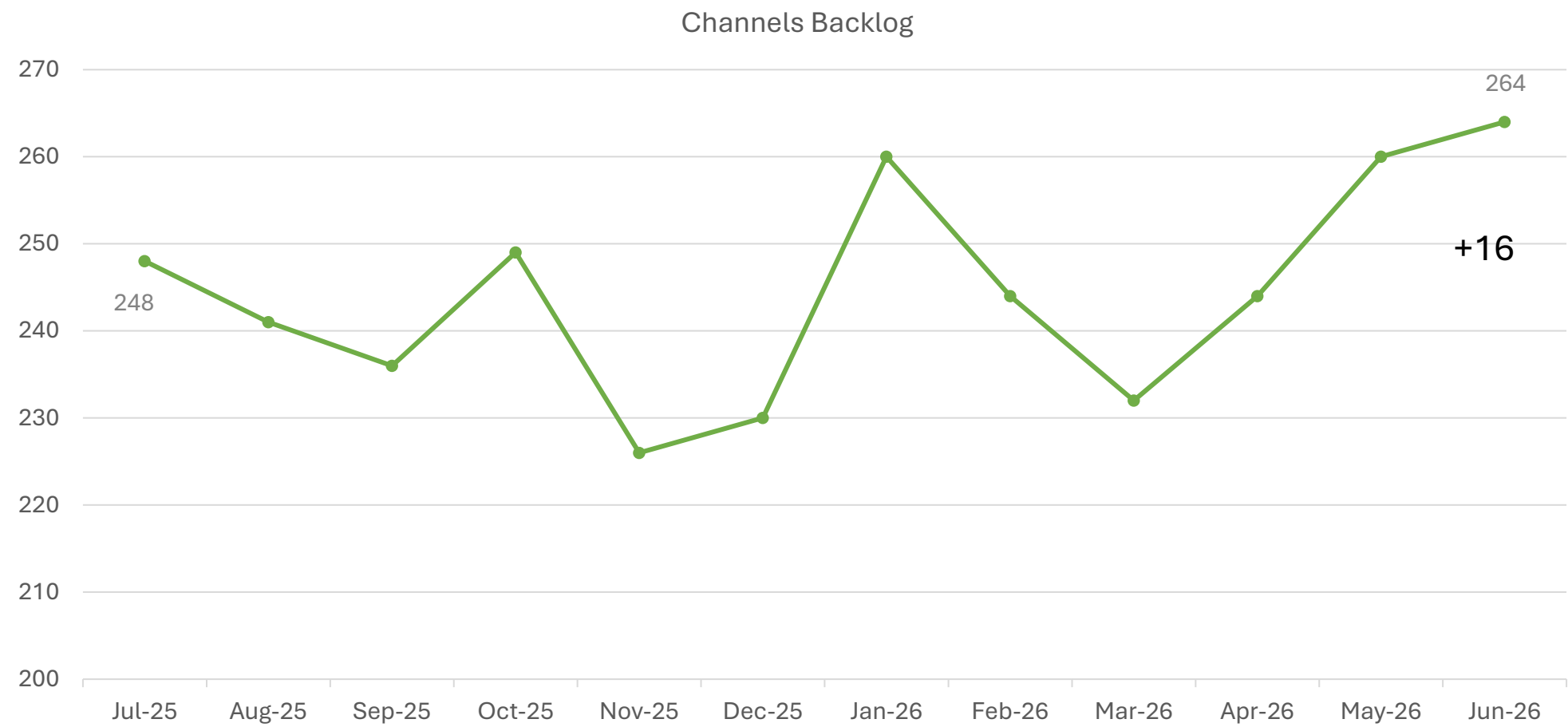


Iona 1 (CD4) – Before and After



- Maintenance performed on 30 channel segments (11.5 miles)
- Responded to 339 service notifications related to channels
- Visually inspected all City-maintained channels (180 segments, 69 miles)
- Created FY27 maintenance schedule based on available resources to prioritize:
 - Recently impacted areas (2024 floods)
 - Known problem areas
 - Potential capacity gains based on engineering analysis

Service Notification Backlog (Channel Assets)



Channel Capacity

- 17% of channels (32/180 segments) are sized to convey the 100-year storm
- Capacity enhancements for Jamacha and Beta Street Channels are in design as part of WIFIA investments



A detailed map of San Diego County, California, showing its various watersheds. The watersheds are color-coded and labeled: San Diego River (red), Los Penasquitos (blue), Mission Bay (dark blue), San Diego River (green), San Diego Bay (light green), and Tijuana River (dark red). The map includes major highways, cities, and geographical features like mountains and valleys. A compass rose is located in the bottom left corner.

6 Watershed Areas

Federal, state, and local regulations require the City to meet specific water quality standards in receiving waters, and the City complies by conducting studies, developing plans, and implementing pollution prevention programs and MS4 improvement projects.

69+ miles
Channels

15
Stomwater
Pump
Stations

15
Stomwater
Pump
Stations

LEVEES

6+ miles

USACE

6+ miles

FEMA



STORM DRAIN

1k+miles

Storm Drain Pipe

55

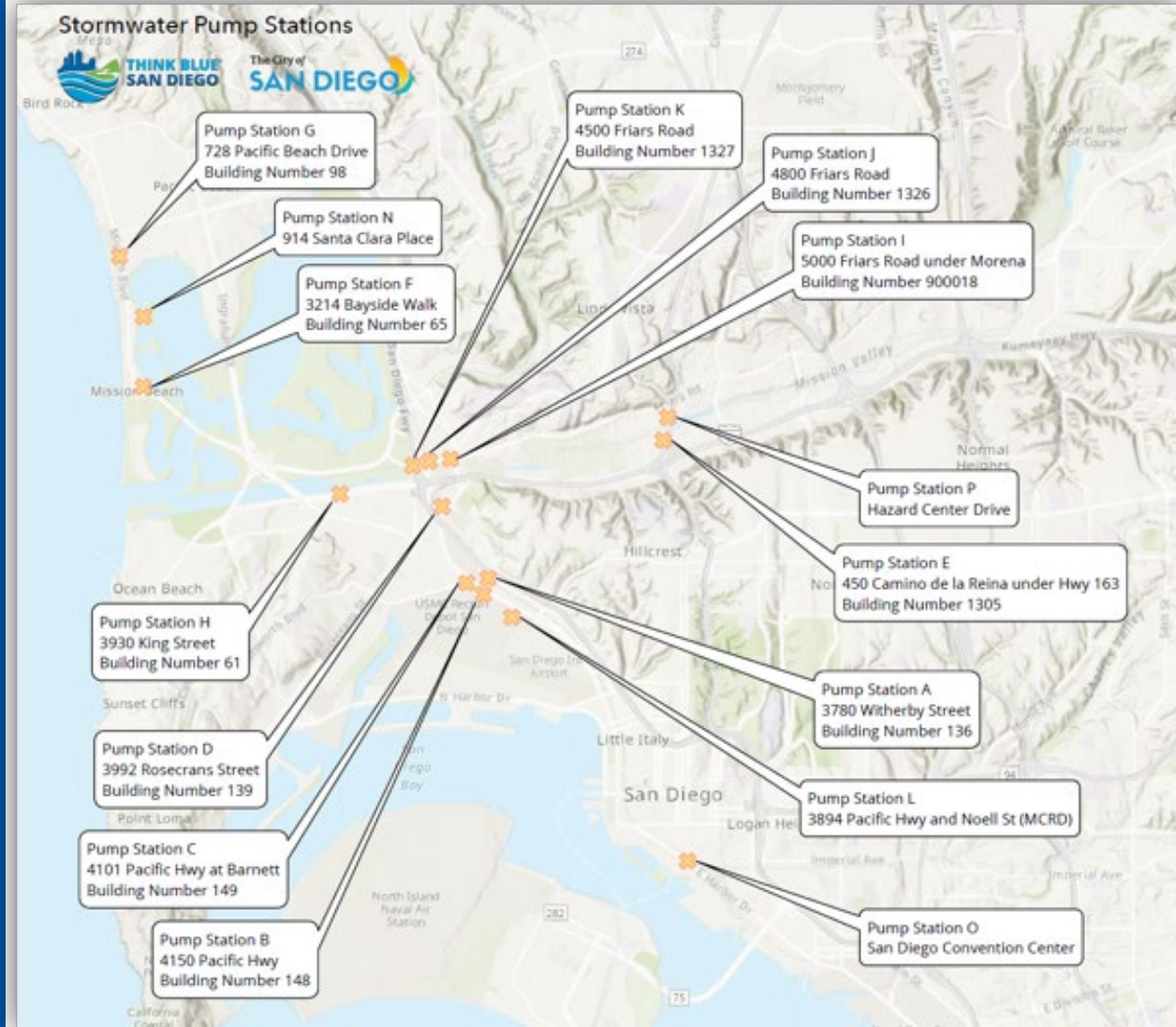
Dry Weather Diversions

391

Structural BMPs

Stormwater Pump Stations – Fiscal Year 2026

- Year-round preventive maintenance at 15 pump stations, 24 interceptor stations, 54 diversion valves, and 6 tide gates
- Significant improvements made in FY26:
 - Installed flood warning signs at Pump Station C in Midway
 - Replaced tide gates at Nantasket and Balboa Court in Mission Beach
 - Installed Automatic Transfer Switch (ATS) at Pump Station H along San Diego River
 - Installed new Emergency Generator at Pump Station N at Santa Clara Place



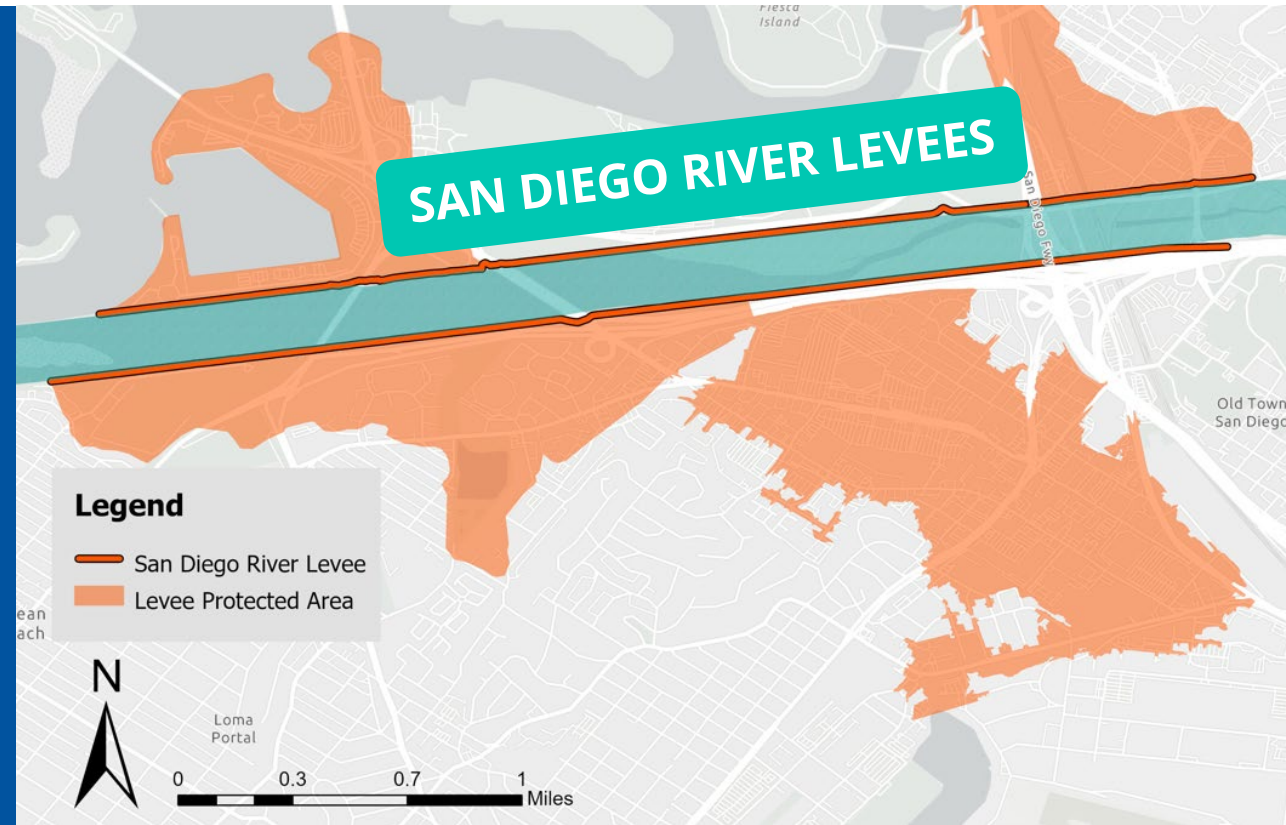
Stormwater Pump Stations – Fiscal Year 2027

- Electrical/mechanical components regularly inspected and repaired
- Pump Station L (MCRD San Diego) undergoing emergency repairs through rainy season
- Staffing Approach: OT will be utilized for storm prep/response, operating pumps during high tides/storms, and SCADA system monitoring
- Capacity Analysis: 14 of 15 stations are sized to convey less than 100-year storm. 7 were built in 1940s. 4 were built in 1970s.
- Pump Station D (Old Town) upgrades are in design and funded through WIFIA & grants



Levees – New O&M Program for FY 2027

- Properties protected by accredited levees are not required to purchase flood insurance
- In 2025, City initiated process to re-accredit and certify levees
- \$1.9M in new funding allocated in FY27 to:
 - Maintain and repair known deficiencies
 - Conduct survey and engineering analysis of current condition and capacity
 - Coordinate with OES on emergency response planning
- There is a much smaller, City-maintained levee along a portion of the Tijuana River



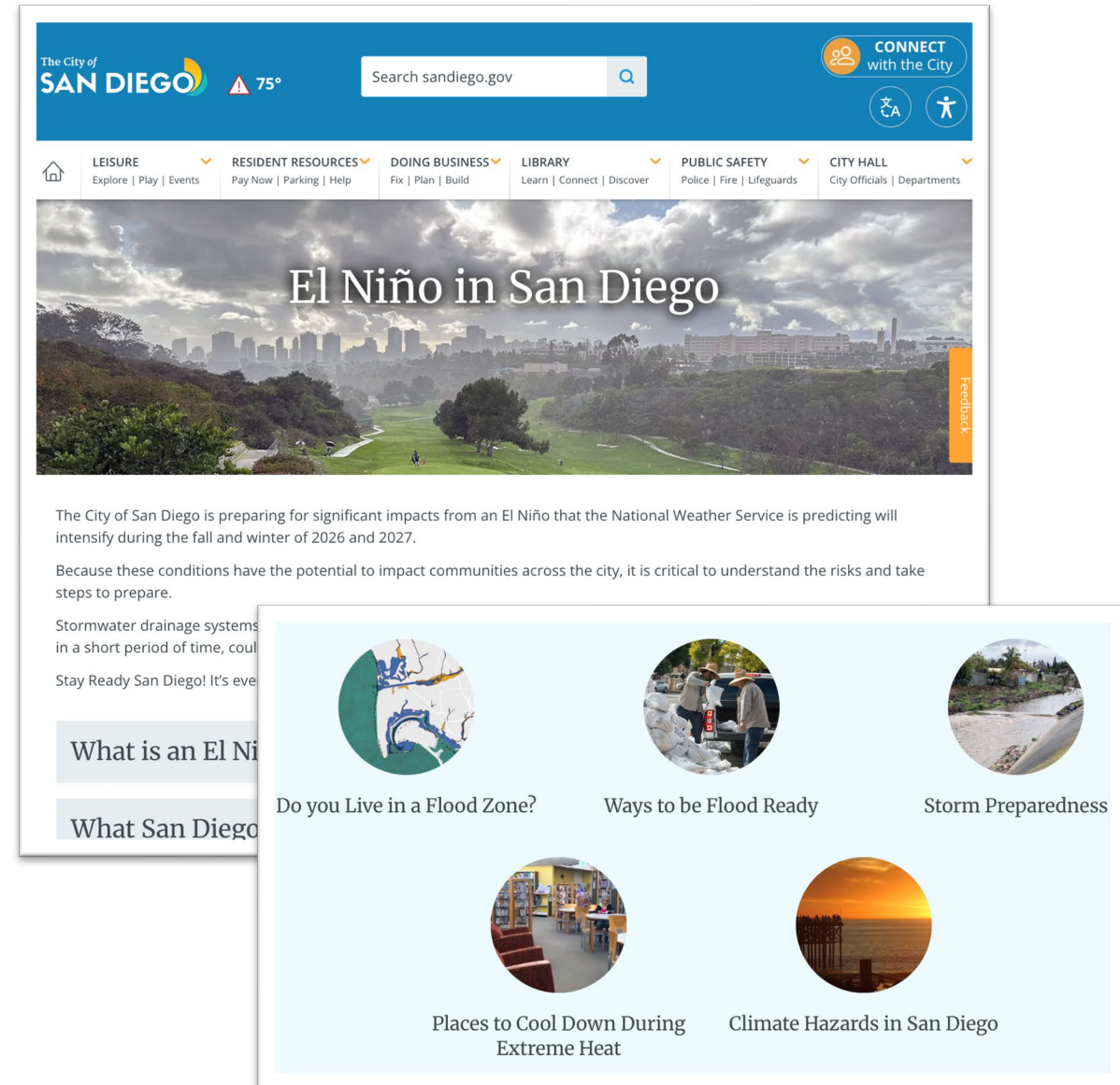
Shoreline and Mission Bay Protective Sand Berms

- Each fall, Parks and Recreation installs sand berms at sandy beach areas along oceanfront and Mission Bay to prevent flooding of City assets.
- Work typically occurs in October with goal to complete prior to king tides in December. Inspection/maintenance continue through storm season.
- 40% reduction in Beach Mechanized Crew for FY27 will result in longer timeline to install and repair.
- Work will occur earlier this year (September) and include coordination with Lifeguards to maintain beach access and safe passage around the berms throughout the season.



PandA: Road Closure Tracking, Get It Done, El Niño Hub

- **Road Closure Tracking**
 - **Web:** www.sandiego.gov/road-closures
 - **Waze/Google:** available in-app
- **Get It Done preparedness**
 - Launch of V7 app to support more phones; included at no additional cost to City
 - User Interface (UI) improvements to facilitate faster, easier reporting
 - Accessibility improvements to meet Federal regulations and avoid fines
- **El Niño Hub**
 - Storm preparedness resources before, during, and after storm events





Discussion