



Annual Stormwater Update

Environment Committee | 1/19/2023

Stormwater Department Employees



Agenda



Stormwater services expanded to meet rising challenges & needs

- FY 22 look-back
- FY 23 look ahead



Funding & resources have improved but massive funding gap remains



Challenges and needs continue to increase

- A changing climate, with longer periods of drought, impacts of fires, and more extreme rainfall
- Aging and failing infrastructure
- Urbanization
- Clean Water Act requirements

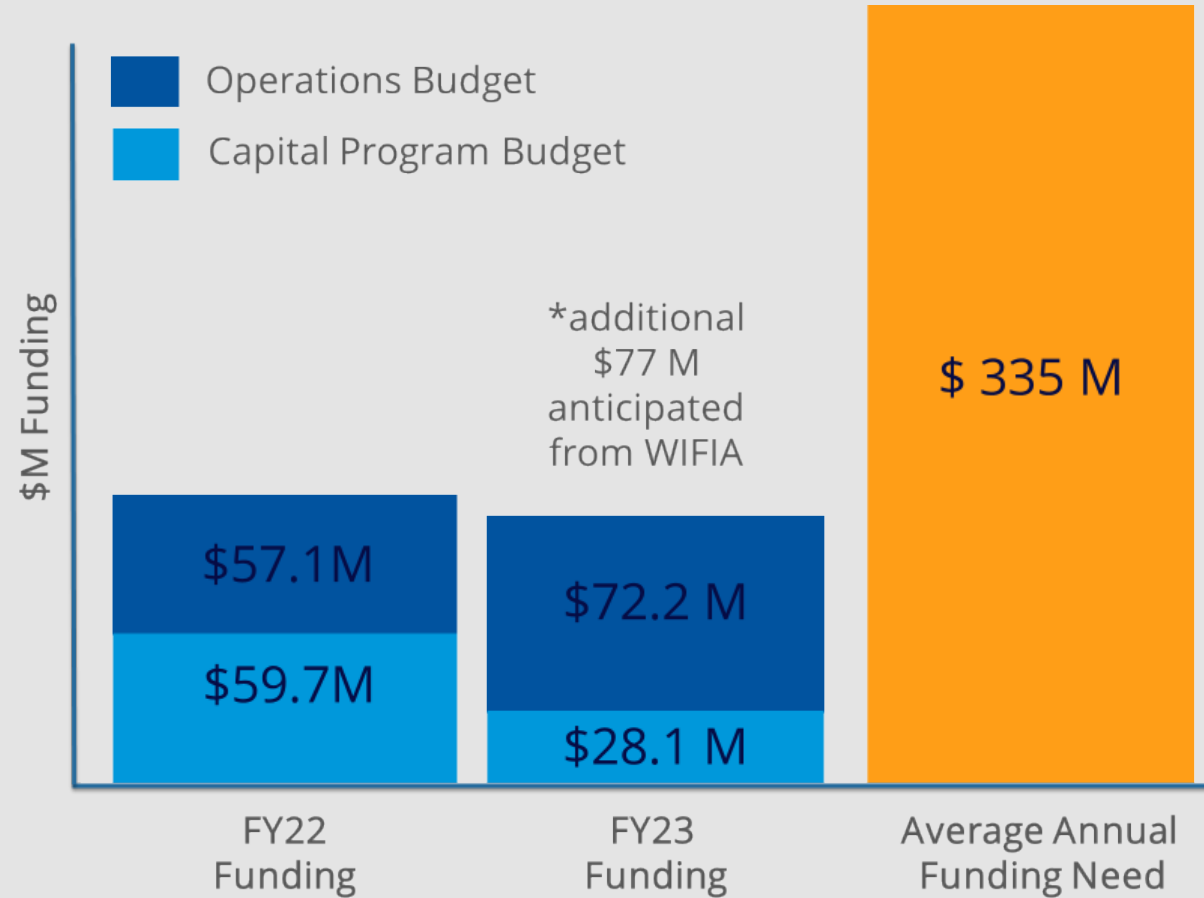


Funding Gap

FY2023 funding and resources have improved, but major funding gap and backlog remain

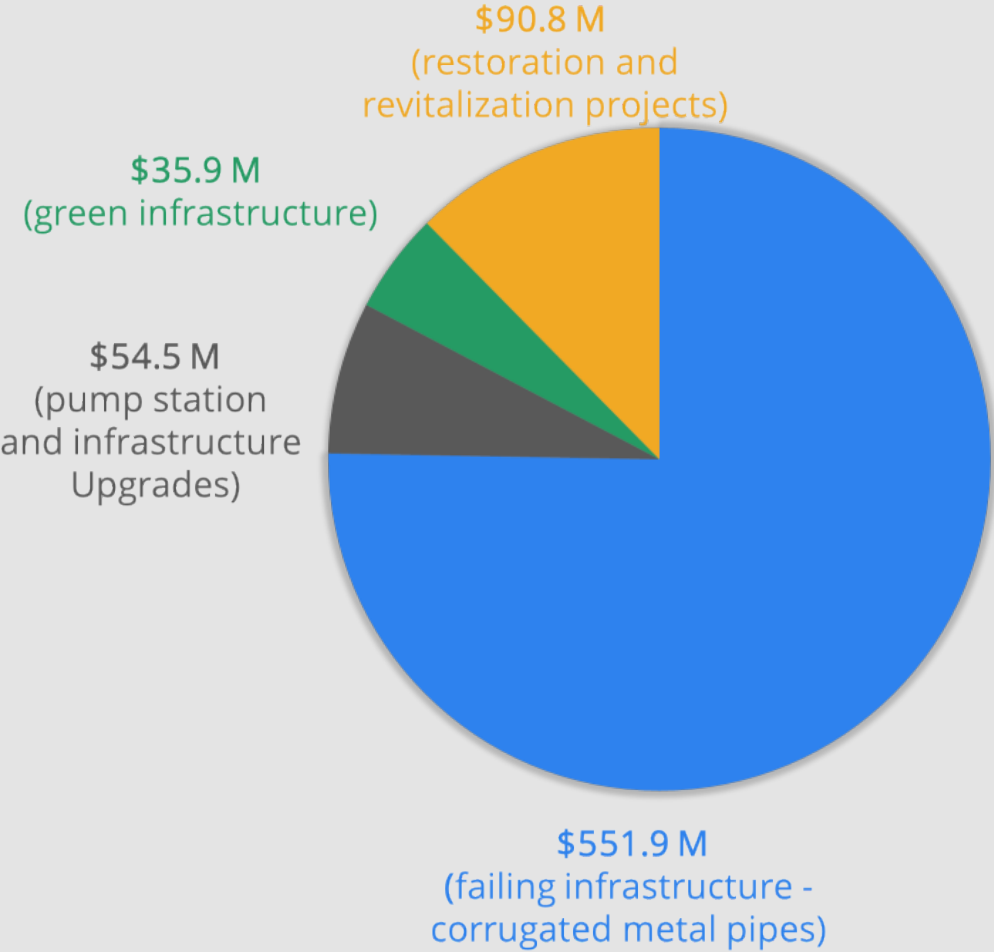
\$274M Average Annual Funding Gap

- FY2023 FTEs increased to 295 (17% increase)
- All new positions hired or in active recruitment



WIFIA Loan

WIFIA loan will fund essential upgrades to chronically underfunded projects and programs.



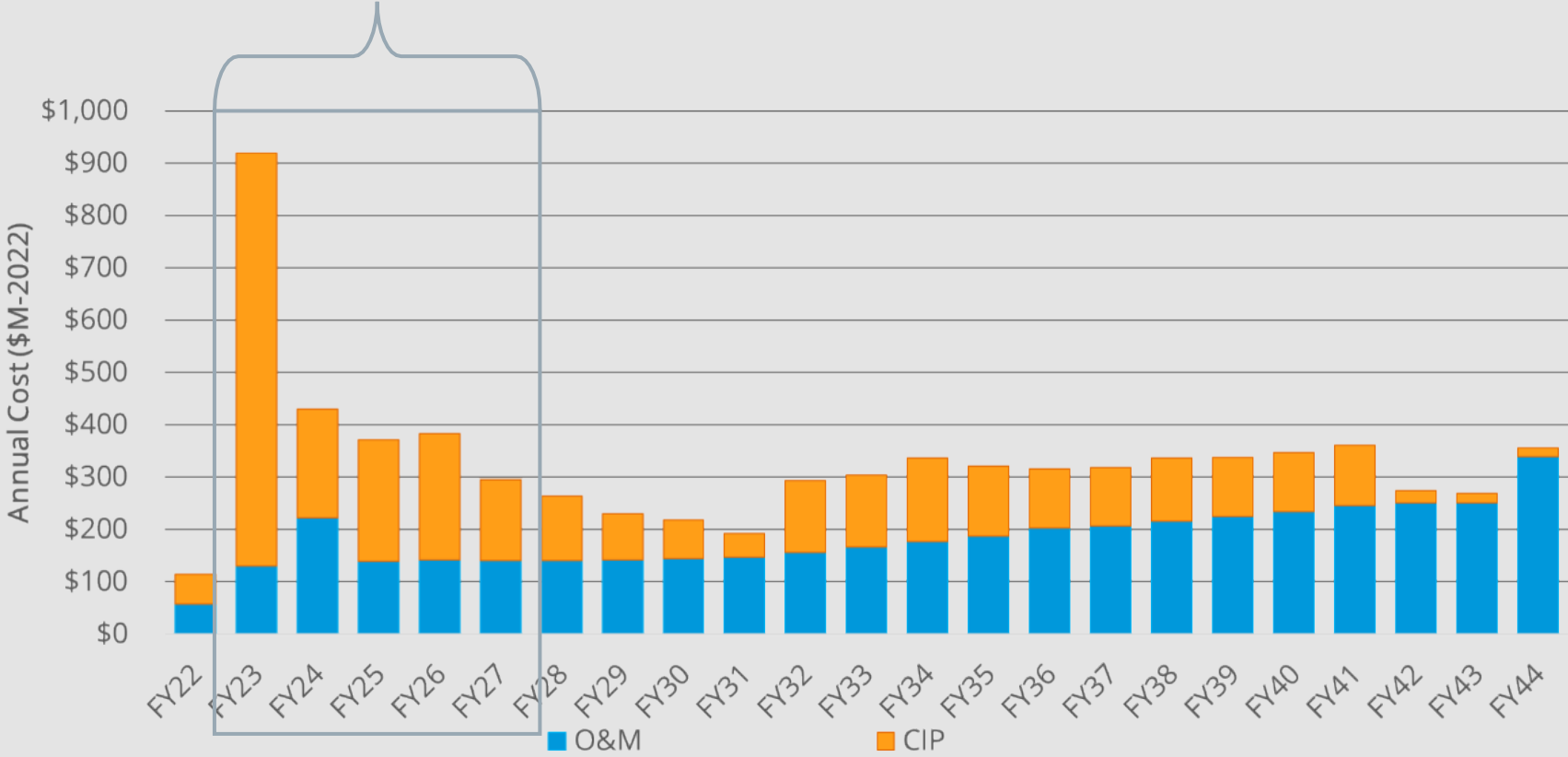
\$733 Million total funding

Coordination and timely ramp up of resources critical to meet milestones

- Engineering and Capital Projects
- Human Resources and Personnel
- Purchasing & Contracts

Unfortunately, WIFIA will not fund other underfunded essential projects and services

FY23 – FY27 WIFIA loan will cover **36%** CIP and **zero** O&M funding needs



Stormwater continues to make progress in core programs even with limited funding



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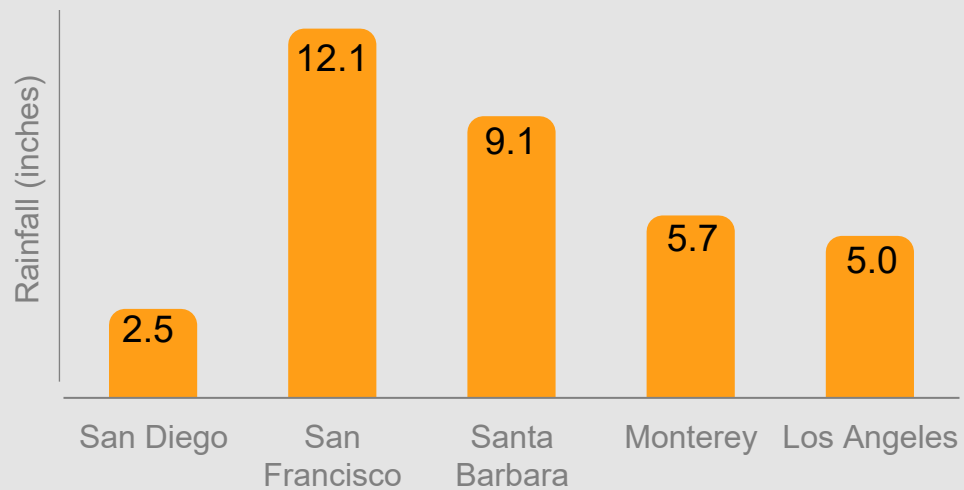


THINK BLUE[®]
SAN DIEGO

Safeguard neighborhoods from flooding

Storm preparation

CA experiencing unprecedented rainfall
(December 28 – January 13)



West Cliff Drive in Santa Cruz (Washington Post)



Marin City (LA Times)



Salinas River (NPR)

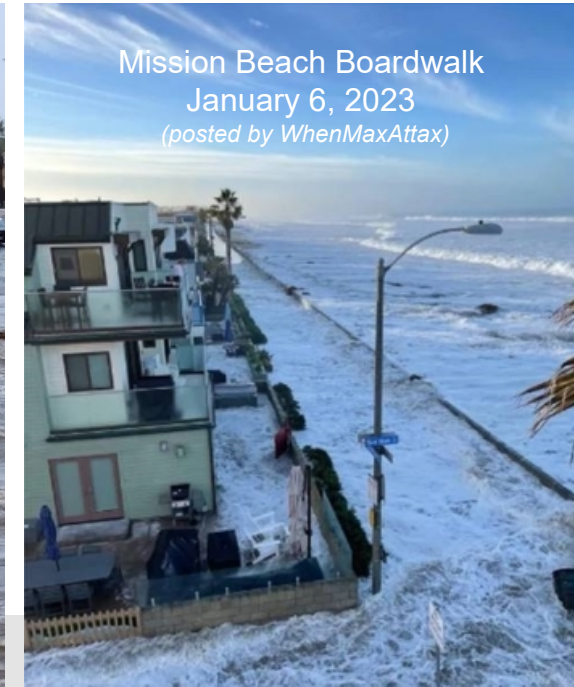
Safeguard neighborhoods from flooding

Storm preparation

If San Diego experienced similar rainfall, significantly more infrastructure failures would result in impacts to life and property

El Nino in 2016 caused 3.0 inches of rainfall over 5 days, resulting in

13 pipe failures requiring emergency repairs



Safeguard neighborhoods from flooding

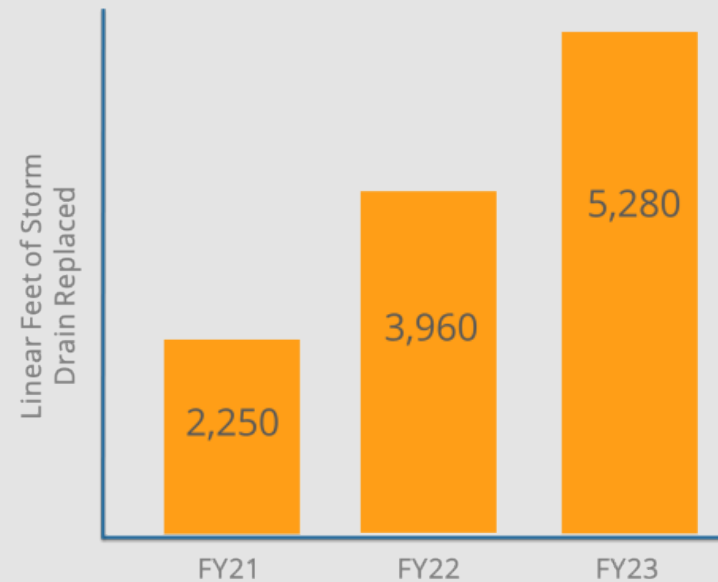
Storm drain replacement program

FY22 Accomplishments

New pipe repair team
(doubled staff)

FY23 Look Ahead

New In-house CCTV team to
assess pipe conditions
>7,500 linear feet
(as of December 2022)



1,000's known pipe failures remain unaddressed and pose threat to health and safety

Safeguard neighborhoods from flooding

Channel maintenance

FY22 Accomplishments

Four routine maintenance

Four emergency maintenance

FY23 Look Ahead

Four maintenance planned

- Tripp – CD 1
- Mission Gorge 1 & 2 – CD 7
- Home 2 (Spillman) – CD 9
- Pomerado – CD 5

One emergency completed



12

major maintenances per year required to reduce backlogged safety concerns



Improve and protect water quality

Street sweeping and storm drain cleaning

FY22 Accomplishments

- Removed 8,200 tons of pollution, ~5,800 dump trucks

FY23 Look Ahead

- Inspect 35,000 storm drain inlets (out of 46,000)
- Clean 30,000 linear feet of pipe
- Sweep 61,000 miles (increasing w/ three new operators)
- Launched street sweeping optimization pilot

>70

routes identified to increase cleaning to fully optimize street sweeping services, more resources needed to implement



Improve and protect water quality

Response team and code enforcement

FY22 Accomplishments

- New Water Quality Response Team
- Combines monitoring, inspection, and enforcement services to address high priority, complex cases

FY23 Look Ahead

- Close five complex cases to abate pollution sources

101 new impairments in 2022 (new contamination issues in our water bodies)

Capture stormwater for supply

Water conservation rebate program

FY22 Accomplishments

- Partnered with San Diego County Water Authority for Prop 1 grant to increase awareness and involvement

FY23 Look Ahead

- Awarded \$500,000 grand funding (FY23 – FY28)
- Expand outreach and education for water conservation
- Increase public participation

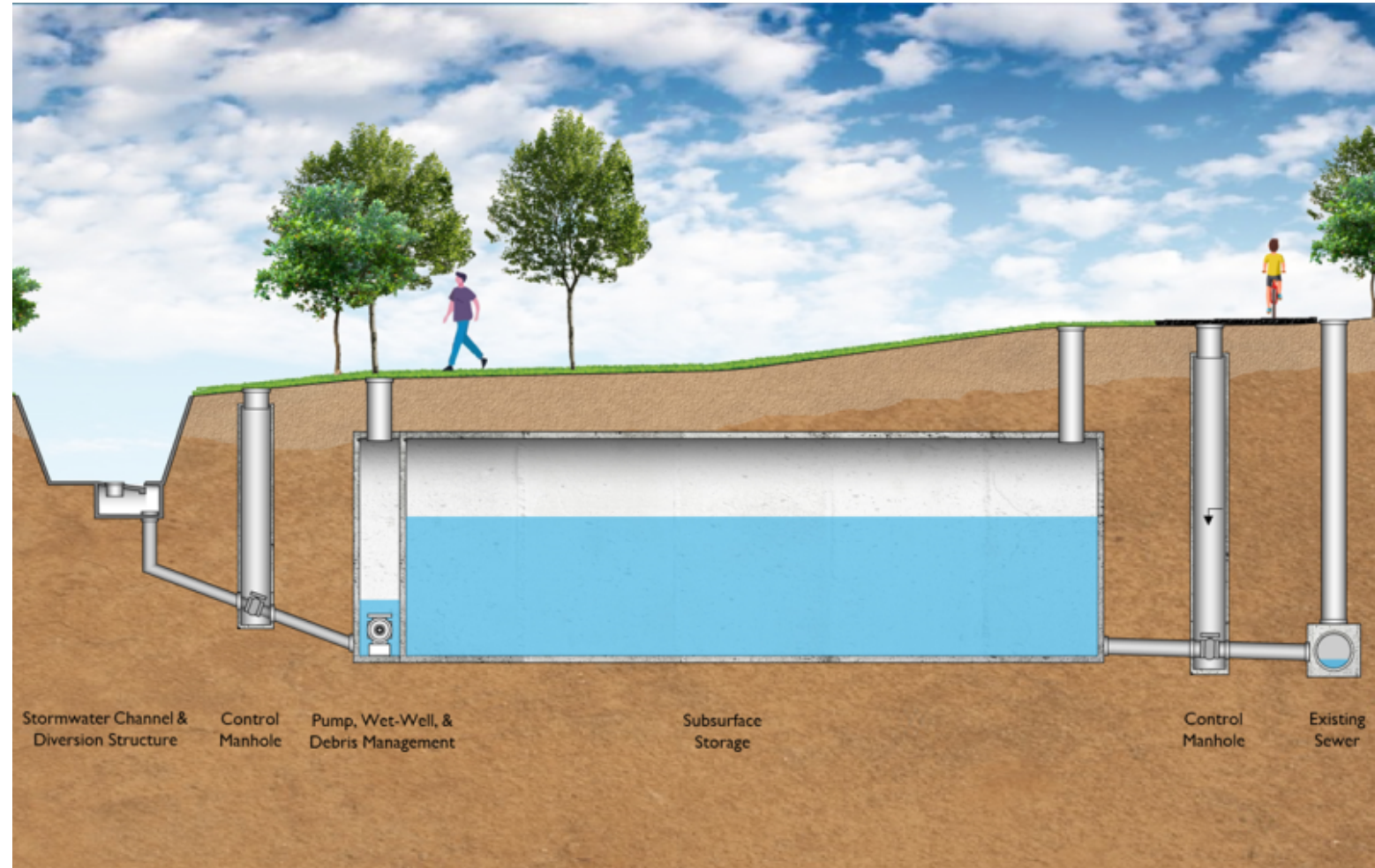


Capture stormwater for supply

Local stormwater capture

- Shift from stormwater as a nuisance to a resource
- Aligns with City Strategic Plan and Climate Action Plan goals
- Ongoing coordination with PUD
- WIFIA funding three stormwater capture project concepts in FY23

Full potential for stormwater to provide portion of local water supplies still unknown



Prioritizing green infrastructure

Estimated \$2.4 Billion to address water quality needs, includes planning, design, construction, and 20 years O&M

Projects in design or construction:



South Mission Beach



Streamview Drive



Alamo Salvation



Southcrest

zero staff to operate and maintain new infrastructure

Modernize Infrastructure

Pump station upgrades

FY22 Accomplishments

Replaced seven failed pumps

Real-time sensors and controls installed for system-wide optimization

FY23 Look Ahead

Four new FTEs and preventative maintenance plans to perform proactive maintenance and keep pumps at 100% capacity

Start repairs/maintenance on four pump station emergencies, two to be completed



4

pump stations with critical infrastructure needs

160+

acres of potential flooding

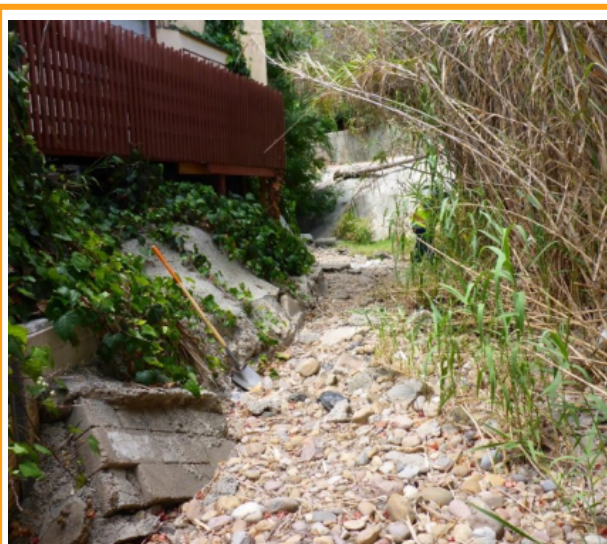
Revitalize waterways

Outstanding mitigation holding up critical maintenance needs, 52 facilities and over half of high priority channels

Restoration and mitigation projects:



Los Peñasquitos Lagoon
Restoration



Upper Auburn Creek
Revitalization



Chollas Creek
Restoration



Smythe Channel and Via
de la Bandola Channel
Mitigation

27

acres of mitigation needed
*excluding future levee maintenance needs

Revitalize waterways

Cleanups and partnerships

FY22

Accomplishments

45 cleanups with nearly 3,800 volunteers, removed 45,500 pounds of trash

FY23 Look Ahead

September 17th Coastal Cleanup Day
~4 million impressions

April 23rd Creek to Bay Cleanup
– 20th Anniversary



“The amount of plastic in the ocean is expected to double in the next 15 years, and by 2050 there could be more plastic than fish in the sea (by weight)”
– World Wildfire Fun

Sustain education, outreach, and engagement

Conducting public opinion research in Spring 2023

4,100

radio, TV, social media, print billboard in FY 22

>44

Million impressions in FY22

FY 23 Targeting:

>45

Million impressions



Sustain education, outreach, and engagement

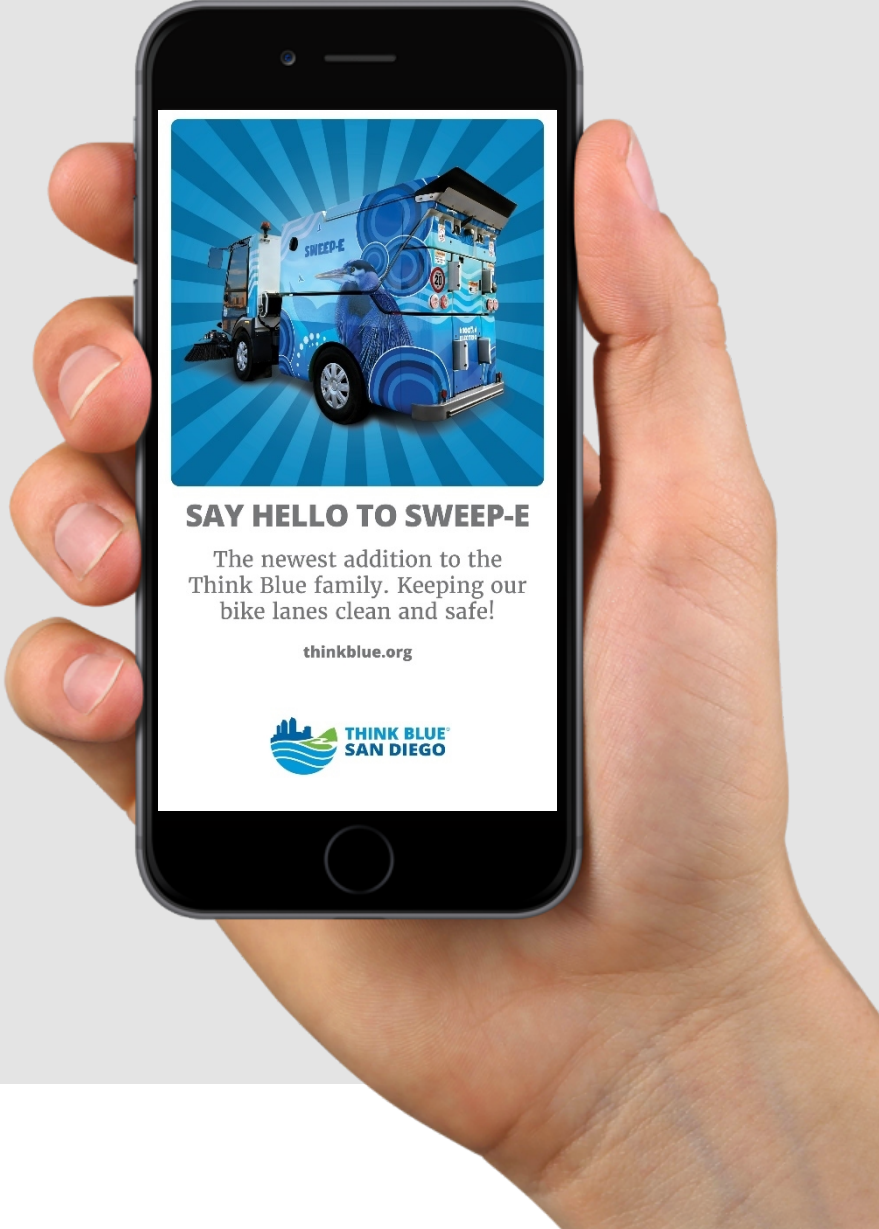
SWEEP-E! 100% electric mini sweeper naming contest in November 2022

1,000+ votes

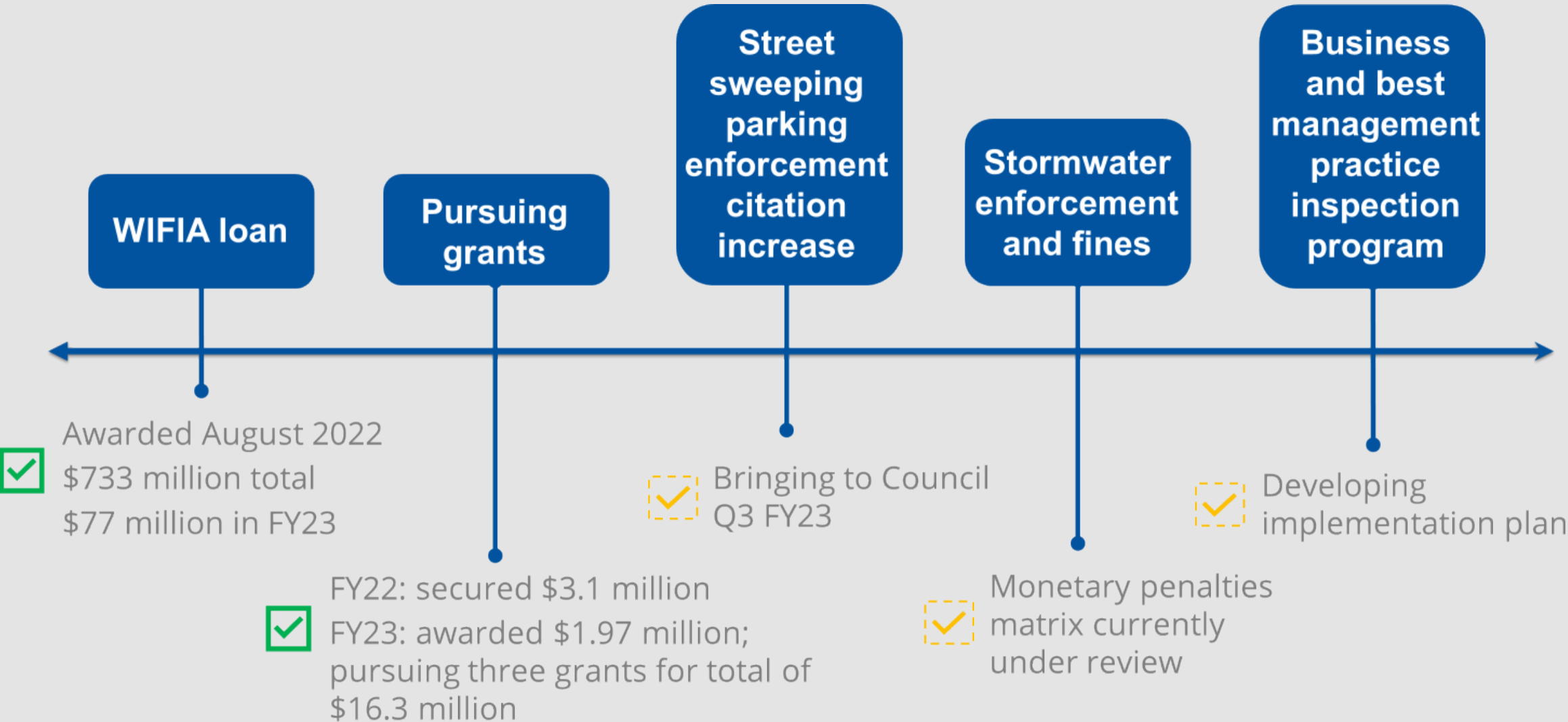
120K earned TV audience

700K+ impressions

\$55K free ad value



Continue to pursue additional funding opportunities



Key Takeaways

- Responsibilities continue to expand
- SWD addressing critical needs and continues to innovate and improve delivery of other key services
- WIFIA loan a great success/huge infusion of resources; only funds portion of needs
- Upcoming budget needs:
 - Ramp-Up CIP
 - Levee Maintenance Team
 - Additional Pipe Repair Support
 - Address Critical Pump Station Repairs
 - Channel Maintenance Mitigation Needs
 - Think Blue

