



SAFE CLEAN WATER PROGRAM

Lower San Gabriel
River Watershed

February 14, 2023
Watershed Coordinator
Update



PRESENTED BY:

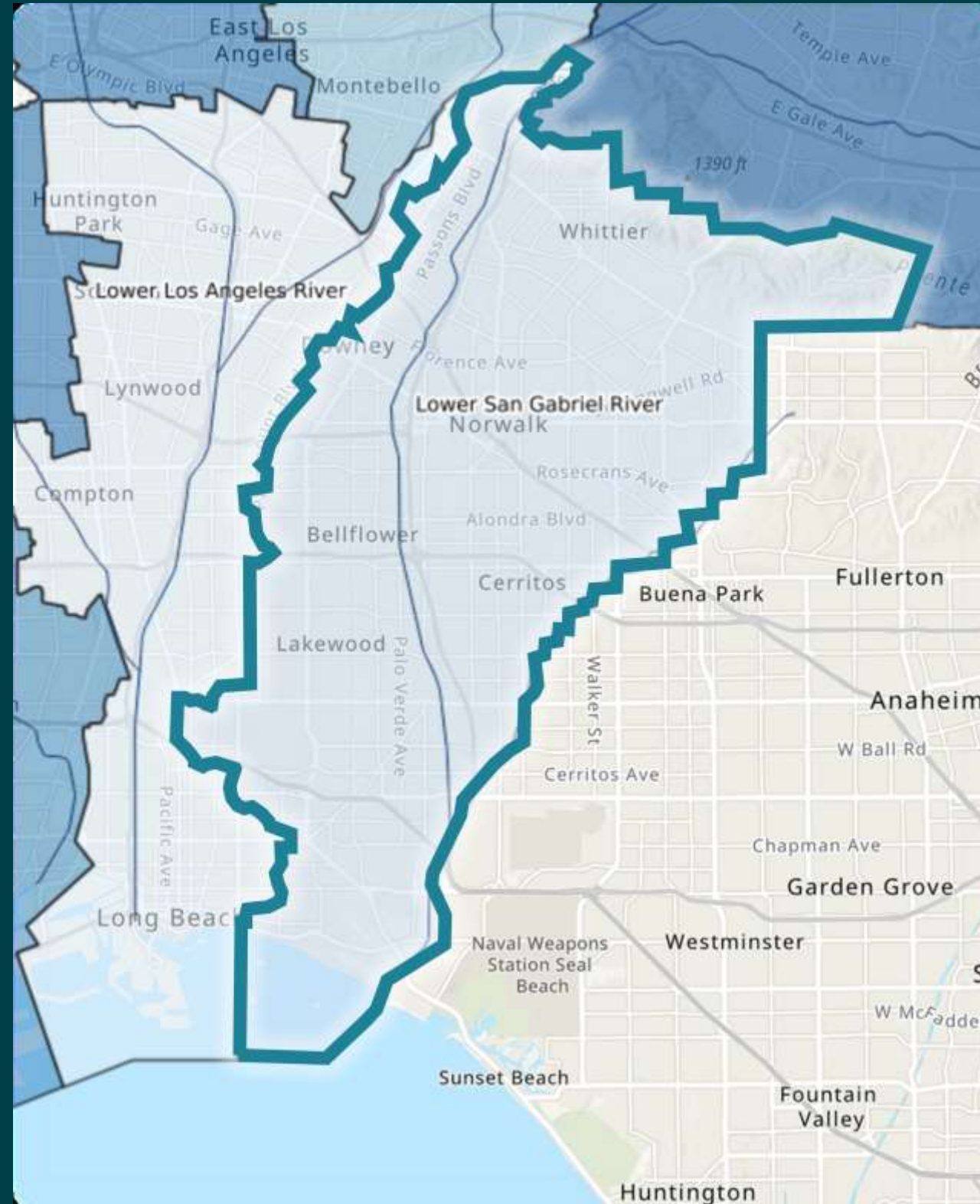
OhanaVets, Inc.
Lower San Gabriel River
Watershed Coordinator



LSGR – Watershed & Member Agencies

The Lower San Gabriel River “LSGR” Watershed Area represents the lower portion of the San Gabriel River starting at Whittier Narrows. It extends 20 miles ending at the Pacific Ocean.

LSGR is in the Gateway Region of Los Angeles County and includes 15 cities and unincorporated LA County in whole or in part.

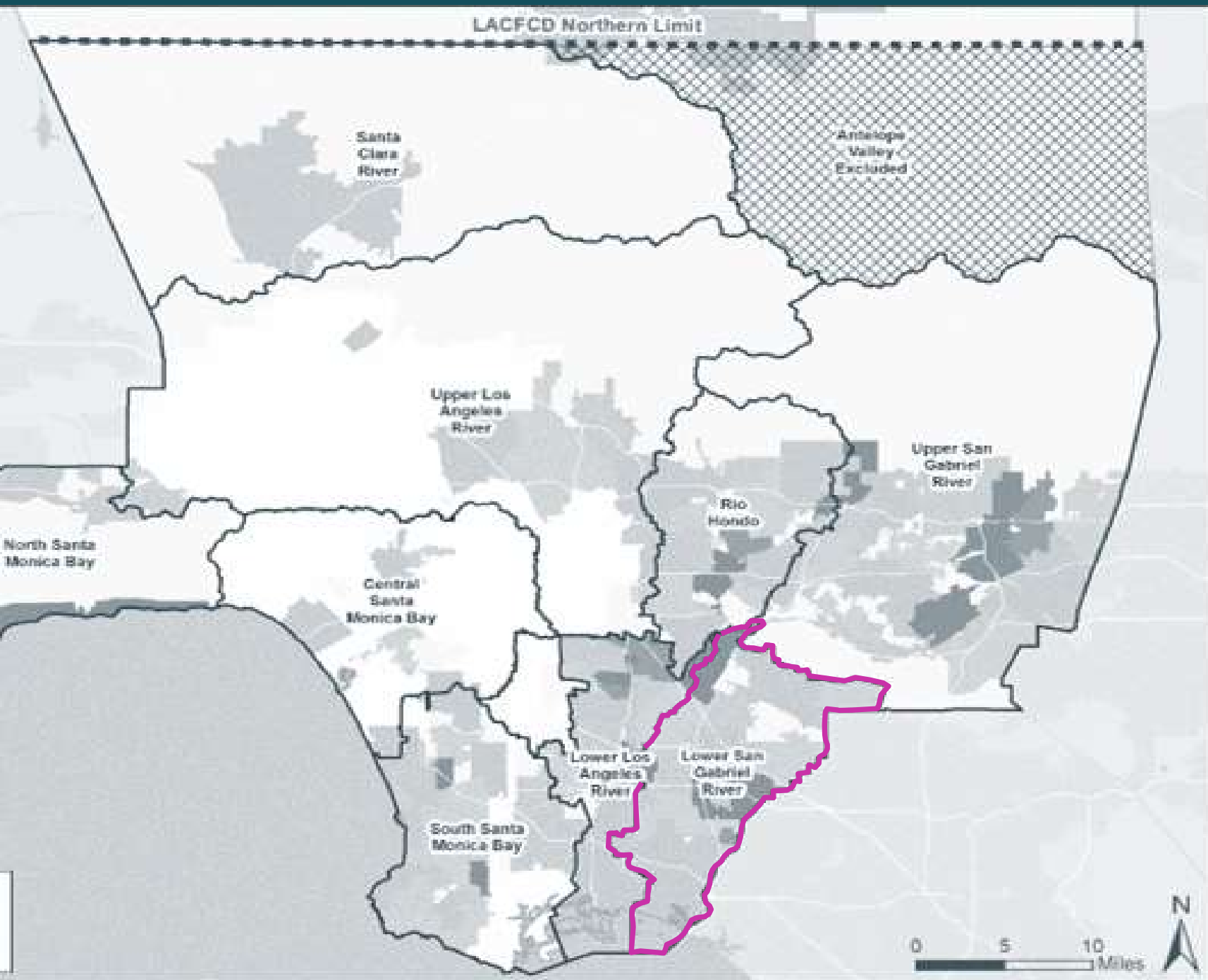


- **Artesia**
- **Bellflower**
- **Cerritos**
- **Downey**
- **Hawaiian Gardens**
- **La Habra Heights**
- **La Mirada**
- **Lakewood**
- **Long Beach**
- **Norwalk**
- **Paramount**
- **Pico Rivera**
- **Santa Fe Springs**
- **Signal Hill**
- **Whittier**
- **Unincorporated LA County**



REGIONAL PROGRAM ANNUAL FUNDING DISTRIBUTION

The percentage of funds received by each Watershed Area is proportional to the tax revenues collected within its boundaries



WATERSHED NAME	2022-23 REGIONAL TAX RETURN ESTIMATES
Central Santa Monica Bay	\$17.42M
Lower Los Angeles River	\$12.72M
Lower San Gabriel River	\$16.7M
North Santa Monica Bay	\$1.83M
Rio Hondo	\$11.49M
Santa Clara River	\$5.87M
South Santa Monica Bay	\$17.58M
Upper Los Angeles River	\$38.44M
Upper San Gabriel River	\$18.78M
ANNUAL REGIONAL TOTAL:	\$140.6M

PASSED AS 'MEASURE W' IN 2018



CAPTURE IT

Increase water supply



CLEAN IT

Reduce volume of trash that reaches waterways and the ocean



MAKE IT SAFE

Eliminate toxins and chemicals from our waterways



MAKE IT FOR EVERYONE

Provide community benefits

VISION:

By modernizing our 100-year-old water system, we can better protect public health and our environment, and maximize a cleaner, locally controlled water supply.

HOW?

Through the funding of:

multi-benefit
stormwater &
urban runoff capture
projects

WHO?



PROJECT DEVELOPMENT PROCESS:



Anticipated Total Time Elapsed: 26 - 40 Months

1

Solicit & Support New Projects

Identify parties with project ideas.

~6-8 months

~6-8 months

~10-24 months

If project is deemed infeasible or does not meet Safe, Clean Water Program requirements for Infrastructure Program funding, project proponent should not apply for Infrastructure Program funding.



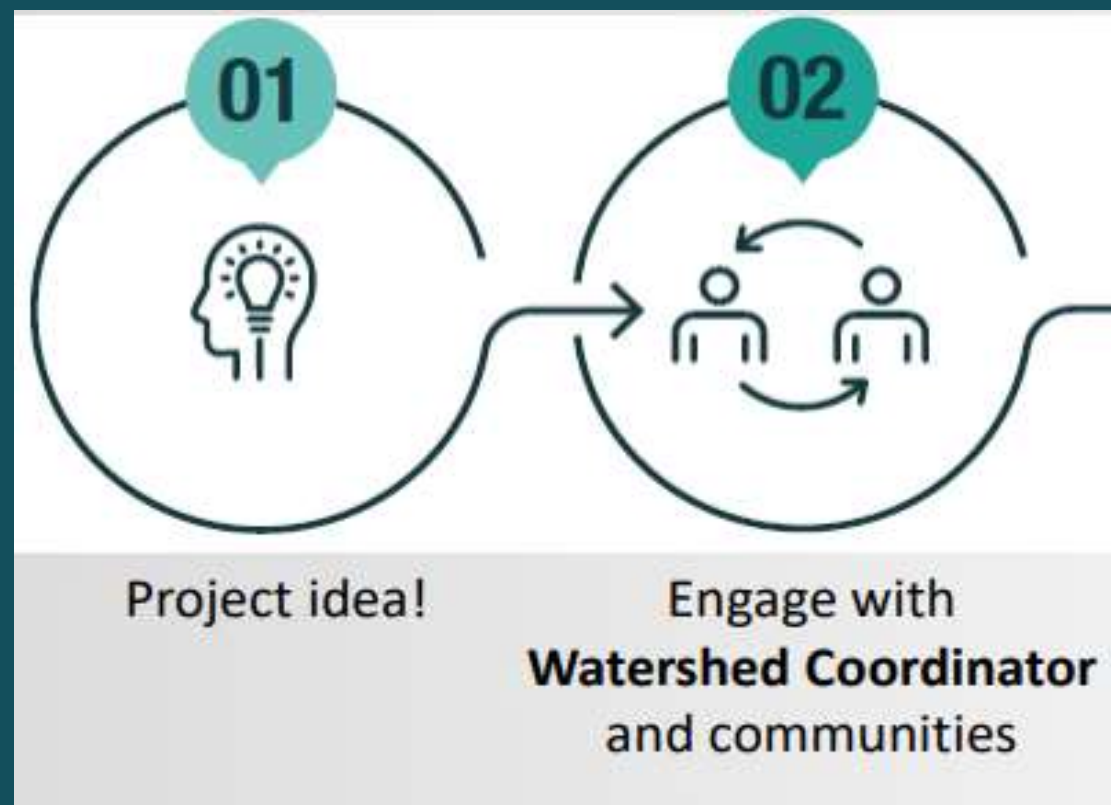
HAVE A PROJECT IDEA?

- ENGAGE WATERSHED COORDINATOR
- DEVELOP COMMUNITY ENGAGEMENT APPROACH
- DEVELOP PROJECT BENEFITS SUCH AS:



- Improving flood management
- Enhancing natural habitat and wetlands
- Increasing public access to waterways
- Creating new recreational opportunities
- Enhancing green spaces at schools
- Reducing local heat island effect
- Increasing vegetation and tree cover

STEPS: 1 & 2





Workshops/Meetings/Education Events

WORKSHOPS and MEETINGS

- Integrated Regional Water Mgmt “IRWM” Lower SGR/Lower LAR Sub-Regional Steering Committee – **March***
- Gateway Water Mgmt Authority Board - **April***
- “SOEP” Public Workshop – **May***
- Rivers and Mountains Conservancy Board – **June***
- Downey School District – **September 16***
- Gateway Chamber Alliance – **September 27***
- Infrastructure LA Initiative Presentation – **September 28***
- Los Cerritos Wetlands Trust – **October 28***
- Watertalks DAC Workshop Community Engagement - **Nov 30***
- Adventure Park Project Groundbreaking – February 22***



Upcoming Activities

Newsletter



Stakeholder Contact List

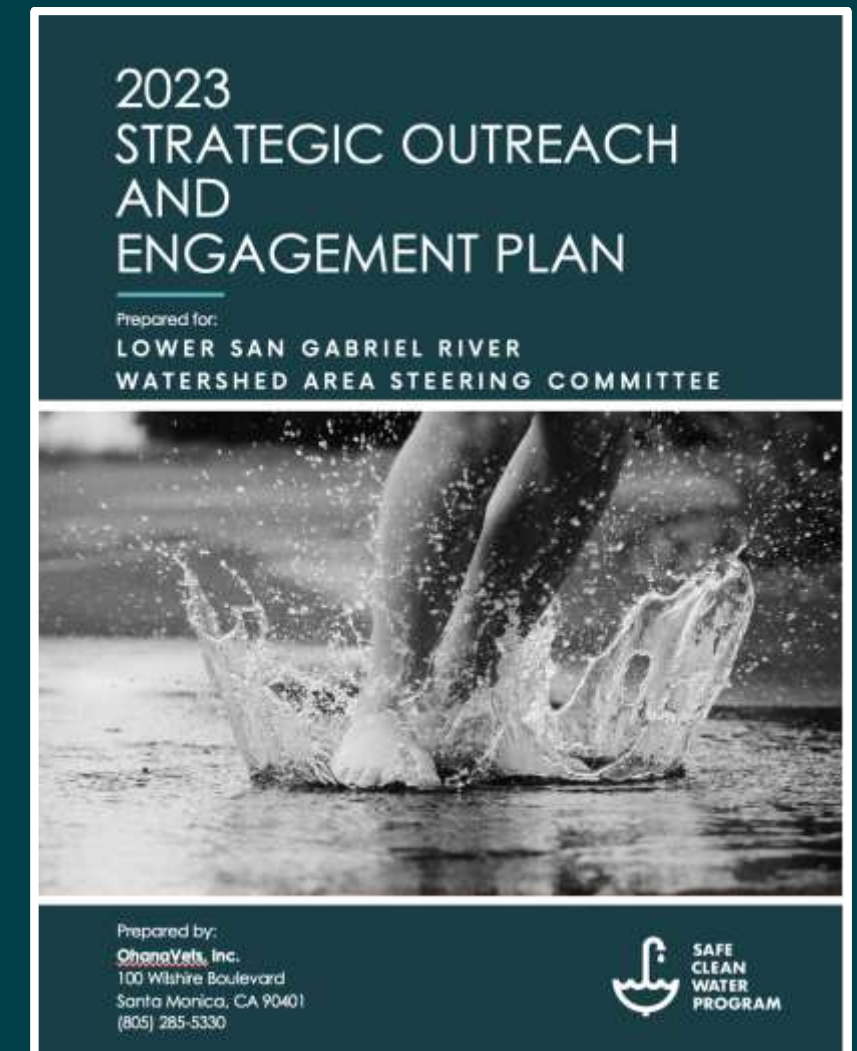
Continued outreach and engagement to local city, NGOs, and School Districts in our watershed area.



2
Community Engagement

Gather input on community needs that SCW projects can help fulfill

SOEP update 2023





Workshops/Meetings/Education Events

EDUCATIONAL OUTREACH

- Downey Touch-a-Truck CWV Education Trailer – May 7
- Sorensen Park Harvest Festival – November 17
- Los Cerritos Wetlands Holiday Tour – December 10
- Water Festival Al Robles Ctr – May 2023**
- Earth Walk City of Lakewood – March/April 2024**

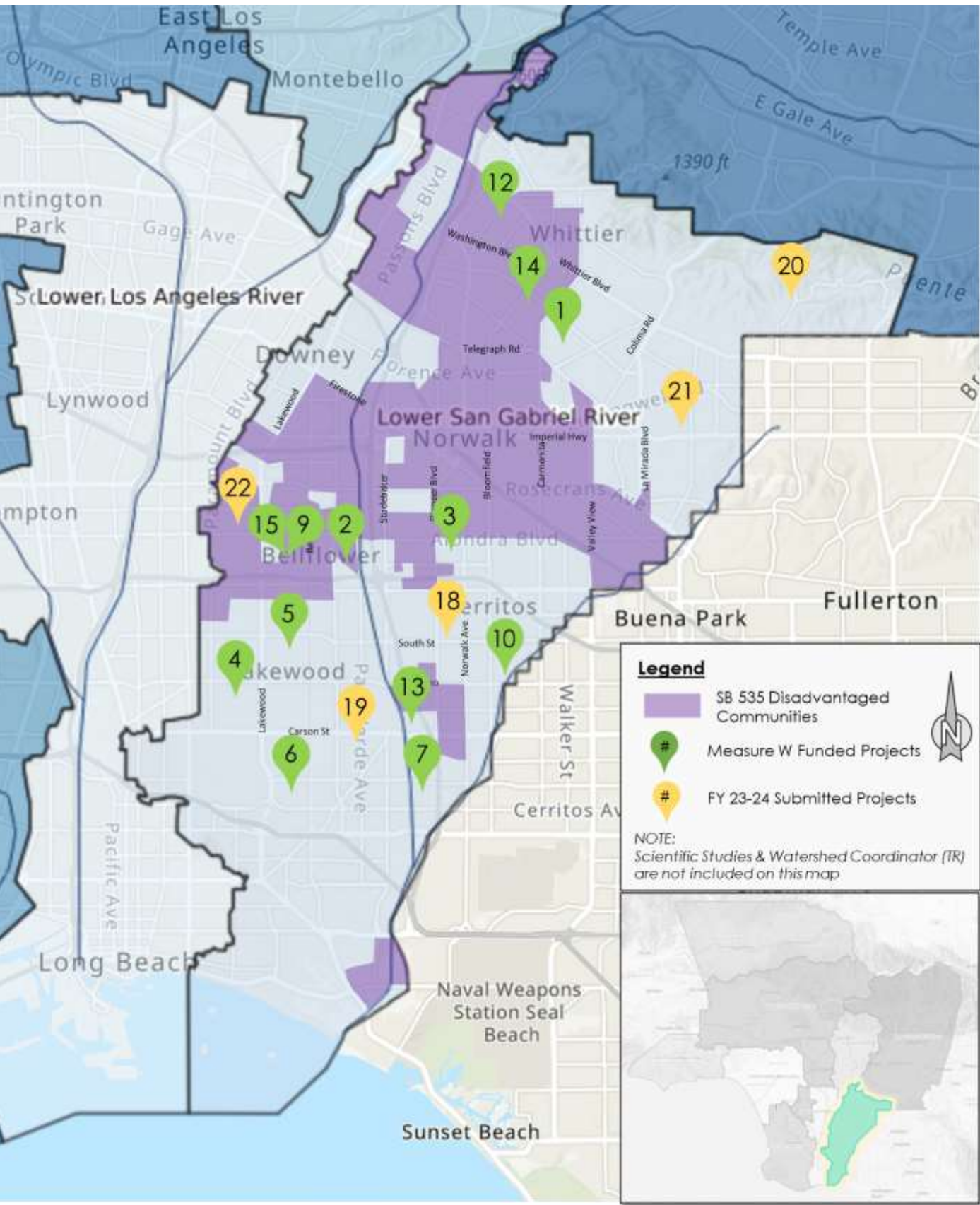
3

Public Education

Educate the public about SCWP projects in their communities



LSGR – SCWP PROJECTS FUNDED AND UNDER CONSIDERATION



Project Name	DAC Benefit	BMP Type	Planning/Design	Construction	O&M	Technical Resource/ Scientific Study	Cost Share	Measure W Funding	SIP Year	Project Developer
			\$M	\$M	\$M	\$M	\$M	\$M		
1 Adventure Park Multi-Benefit Stormwater Capture	N	D		\$ 13.5			\$ 15.0	\$ 13.5	20-21	Unincorp. County Area of Whittier
2 Caruthers Park	Y	I			\$ 0.9		\$ 13.0	\$ 0.9	20-21	Bellflower
3 Hermosillo Park	Y	I	\$ 4.1	\$ 16.0				\$ 20.1	20-21	Norwalk
4 Bolivar Park	Y	I			\$ 1.3		\$ 11.0	\$ 1.3	20-21	Lakewood
5 Mayfair Park	Y	T			\$ 1.3		\$ 15.0	\$ 1.3	20-21	Lakewood
6 Skylinks Golf Course at Wardlow Stormwater Capture Project	N	T	\$ 2.7	\$ 7.8				\$ 10.4	20-21	Long Beach
7 El Dorado Regional Project	Y	T	\$ 3.0				\$ 0.1	\$ 3.0	20-21	Long Beach
8 Watershed Coordinator	N/A	TR				\$ 1.0		\$ 1.0	20-21	LA CFCD
9 Bellflower Simms Park Stormwater Capture	Y	T	\$ 2.1				\$ 5.6	\$ 2.1	21-22	Bellflower
10 Cerritos Sports Complex	Y	T	\$ 2.4					\$ 2.4	21-22	Cerritos
11 Gateway Area Path Finding Analysis	N/A	SS				\$ 0.1		\$ 0.1	21-22	GWMA
12 Sorensen Park Multi-Benefit	Y	TR				\$ 0.3		\$ 0.3	21-22	LA County PW
13 Lakewood Equestrian Center	Y	T	\$ 1.1				\$ 0.4	\$ 1.1	22-23	Lakewood
14 York Field Stormwater Capture	Y	I	\$ 1.9				\$ 0.6	\$ 1.9	22-23	Whittier
15 Bellflower Simms Park Stormwater Capture	Y	T		\$ 13.7			\$ 0.9	\$ 13.7	22-23	Bellflower
16 Gateway Area Path Finding Analysis Ph 2	N/A	SS				\$ 0.2		\$ 0.2	22-23	GWMA
17 Microplastics in LA County Stormwater	N/A	SS				\$ 0.2	\$ 0.1	\$ 0.2	22-23	Dr. A. Gray, UC Riverside
SubTotal			\$ 17.3	\$ 51.0	\$ 3.4	\$ 1.9		\$ 73.5		
18 Artesia Park Urban Runoff Capture	Y	T	\$ 1.6					\$ 1.6	23-24	Artesia
19 Heartwell Park at Palo Verde Channel Stormwater Capture	N	T	\$ 1.5	\$ 1.8				\$ 3.3	23-24	Long Beach
20 La Habra Heights Stormwater Treatment and Reuse	Y	BF		\$ 0.7				\$ 0.7	23-24	La Habra Heights
21 La Mirada Creek Park	N	BR		\$ 5.8			\$ 1.0	\$ 5.8	23-24	La Mirada
22 Progress Park Stormwater Capture	Y	I	\$ 2.2				\$ 2.2	\$ 2.2	23-24	Paramount
23 Regional Pathogen Reduction	N/A	SS				\$ 1.0		\$ 1.0	23-24	GWMA
24 Targeted Human Waste Source Reduction Strategy	N/A	SS				\$ 0.5		\$ 0.5	23-24	GWMA
Subtotal			\$ 5.3	\$ 8.3	\$ -	\$ 1.5		\$ 15.0		
Total			\$ 22.6	\$ 59.3	\$ 3.4	\$ 5.2		\$ 88.6		

LEGEND
 BMP Type: BF=Biofiltration; BR=Bioretention; D= Diversion to Sanitary Sewer; I = Infiltration Facility; T = Treatment Facility; TR = Technical Resource; SS = Scientific Study
 Located in SB 535 Disadvantaged Communities

LSGR WATERSHED AREA FY23-24 PROJECT APPLICANT

ARTESIA PARK URBAN RUNOFF CAPTURE PROJECT



Regional urban runoff capture facility located at Artesia Park beneath the open space of the existing park surface.

PROJECT LEAD: City of Artesia

BMP TYPE: Treatment Facility

LOCATED IN DISADVANTAGED COMMUNITY(DAC)? No

BENEFITS DAC? Yes

SCORING COMMITTEE SCORE 61

TOTAL MEASURE W FUNDING REQUEST: \$1,568,876

FUNDING YEAR AMOUNT

Year 1 \$1,568,876 (Design)

COST SHARE? No

TOTAL CONSTRUCTION COST: \$13,173,880

PROJECT FEATURES:

- Captures water from 585 acres
- Nature-Based Parking Lot Enhancements
- Improve Flood Management
- Enhance/Restore Park Space
- Enhance Recreational Opportunities
- Reduce heat local island Effect
- Increase Tree Count

PROPOSED CONCEPTUAL SITE LAYOUT

Parking Lot: Permeable Pavement and Bioswales

Pre-Cast Subsurface Storage Facility

Ephemeral Stream to butterfly garden

PRELIMINARY SCW SCORING

SECTION	TOTAL COST
A.2 Dry Weather Water Quality Benefits	40
• A.2.1 Capture, infiltrate, treat & release, or divert 100% of all tributary dry weather flows	
• A.2.2 Tributary size >200 acres	
B. Significant Water Supply Benefits	5
• B1. Water Supply Cost Effectiveness	
• B2. Water Supply Benefit Magnitude	
C. Community Investment Benefits	5
• Improved flood management	
• Creation/enhancement/restoration of parks	
• Enhanced/new recreational opportunities	
• Reducing local heat island effect	
• Increasing number of trees and/or vegetation	
D. Nature-Based Solutions	12
E. Leveraging Funds and Community Support	4
• Strong local, community-based support	
TOTAL SCORE	66

TYPICAL CROSS SECTION

PROJECT CHARACTERISTICS

<u>Primary Pollutant</u> Zinc Reduction Achieved (% Zn reduction)	76 lb/yr (91.4%)
<u>Secondary Pollutant</u> Bacteria (% Bacteria load reduction)	1.57 x 10 ¹³ MPN (98.1%)
<u>Design Diversion Rate</u> Project No. B10021, Unit 2, Line A	20 cfs
Storage Capacity for Subsurface Storage Reservoir	5 ac-ft (1.6 MG)
24-Hour Capacity	20.6 ac-ft
Construction Cost Estimate	\$11,785,345

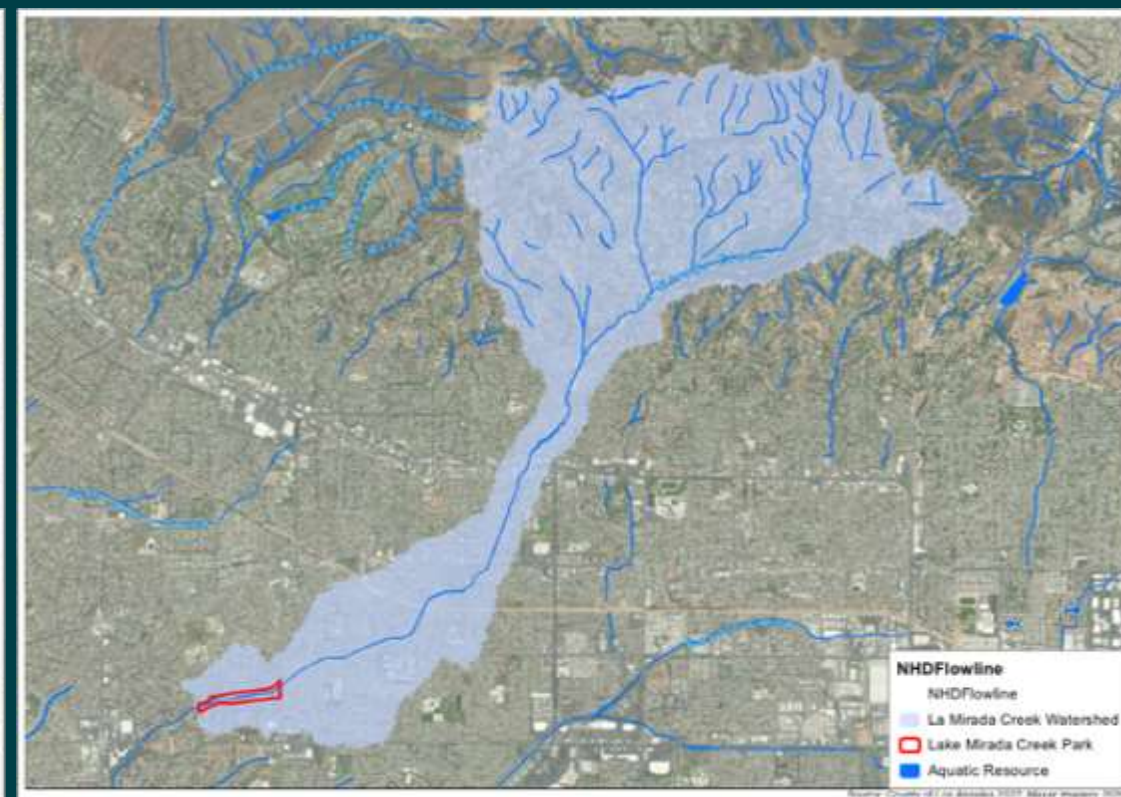
LSGR WATERSHED AREA FY23-24 PROJECT APPLICANT

LA MIRADA CREEK PARK PROJECT



Removal of 2,500 feet concrete low-flow channel. Naturalization of existing La Mirada Creek Park to capture 168 AFY of dry weather flow.

PROJECT LEAD:	City of La Mirada
BMP TYPE:	Bioretention
LOCATED IN DISADVANTAGED COMMUNITY(DAC)?	No
BENEFITS DAC?	No
SCORING COMMITTEE SCORE:	61
TOTAL MEASURE W FUNDING REQUEST:	\$5,752,200
FUNDING YEAR	AMOUNT
Year 2	\$5,752,200 (Const)
COST SHARE?	\$1,008,000
TOTAL CONSTRUCTION COST:	\$5,752,200
PROJECT FEATURES:	<ul style="list-style-type: none"> • Captures water from 2,949 acres • Improve Flood Management • Enhance/Restore Park Space • Improves Public Access to Waterways • Enhance Recreational Opportunities • Reduce Heat Local Island Effect • Increase Tree Count



DRAFT

LSGR WATERSHED AREA FY23-24 PROJECT APPLICANT HEARTWELL PARK AT PALO VERDE CHANNEL STORMWATER CAPTURE PROJECT



Regional stormwater capture and filtration/sewer diversion facility located at Heartwell Park beneath the open space of the existing park.

PROJECT LEAD: City of Long Beach

BMP TYPE: Treatment Facility

LOCATED IN DISADVANTAGED COMMUNITY(DAC)? No

BENEFITS DAC? No

SCORING COMMITTEE SCORE: 61

TOTAL MEASURE W FUNDING REQUEST: \$3,313,865

FUNDING YEAR **AMOUNT**

Year 1 \$1,485,048 (Design)

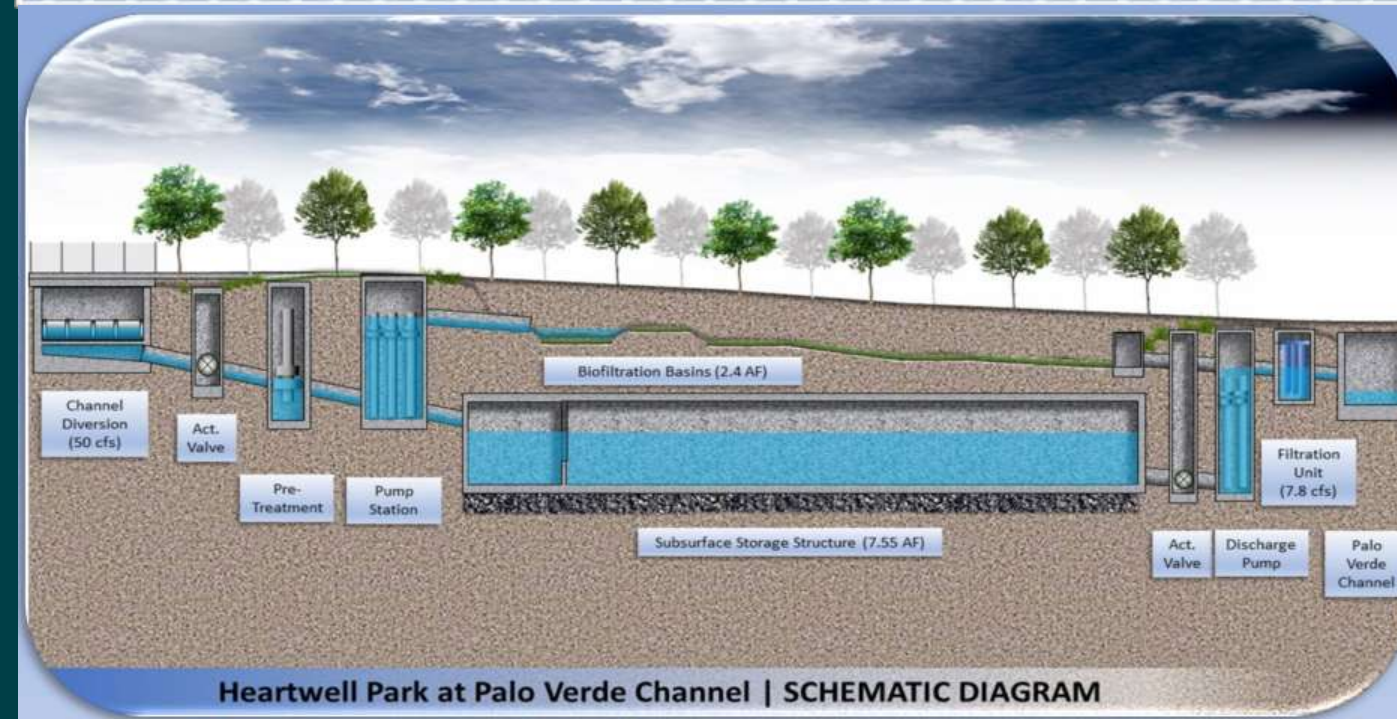
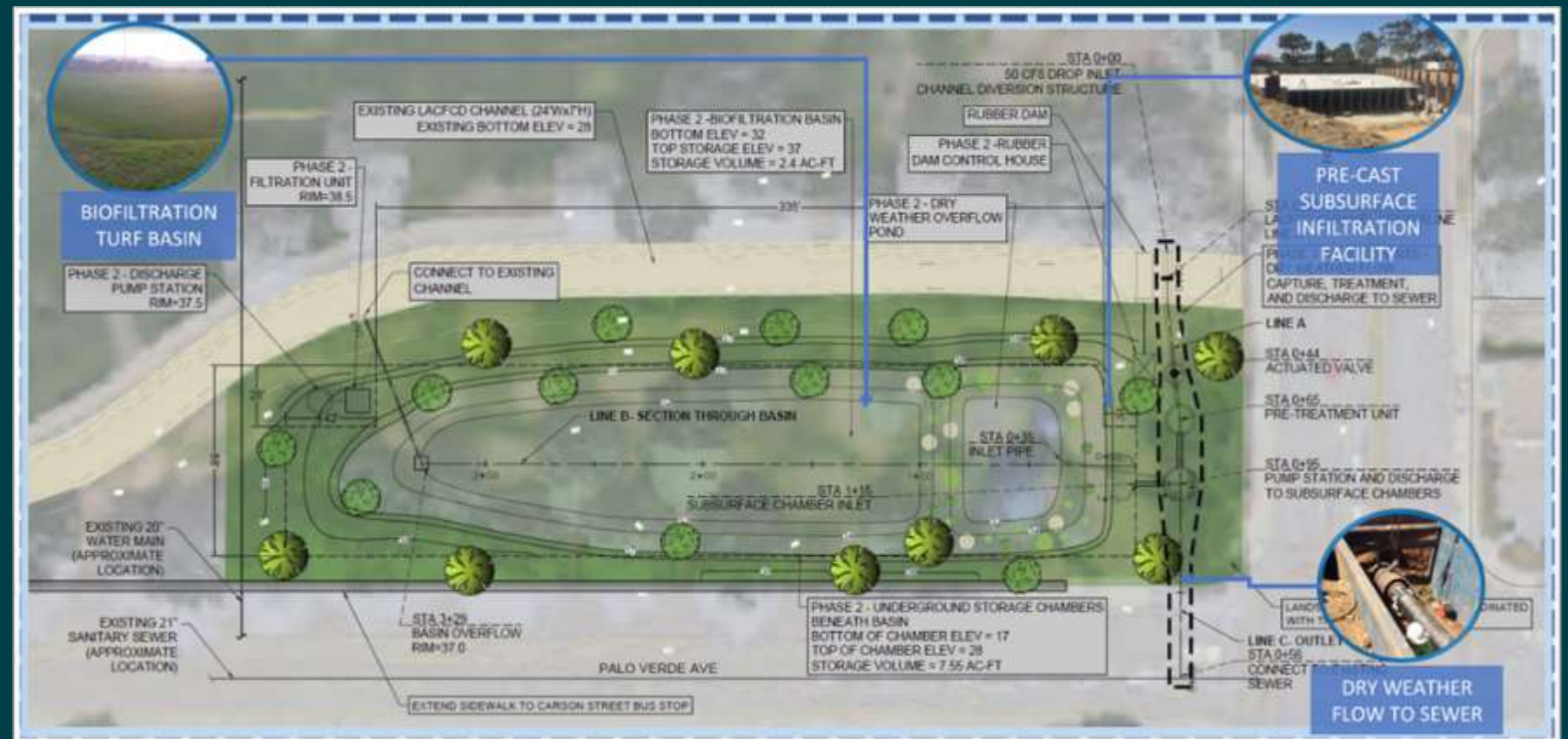
Year 2 \$1,828,817 (Phase 1 Const.)

COST SHARE? No

TOTAL CONSTRUCTION COST: \$11,956,920

PROJECT FEATURES:

- Captures water from 2,099 acres
- Improve Flood Management
- Enhance/Restore Park Space
- Improves Public Access to Waterways
- Enhance Recreational Opportunities
- Reduce Heat Local Island Effect
- Increase Tree Count



Heartwell Park at Palo Verde Channel | SCHEMATIC DIAGRAM

DRAFT

LSGR WATERSHED AREA FY23-24 PROJECT APPLICANT

LA HABRA HEIGHTS STORMWATER TREATMENT AND REUSE SYSTEM THE PARK HACIENDA ROAD



The project aims to capture, infiltrate or treat and store stormwater runoff from Hacienda Park and nearby catchments for beneficial reuse.

PROJECT LEAD: City of La Habra Heights

BMP TYPE: Biofiltration

LOCATED IN DISADVANTAGED COMMUNITY(DAC)? No

BENEFITS DAC? Yes

SCORING COMMITTEE SCORE: 65

TOTAL MEASURE W FUNDING REQUEST: \$705,348

FUNDING YEAR **AMOUNT**

Year 1 \$289,069 (Design & Const.)

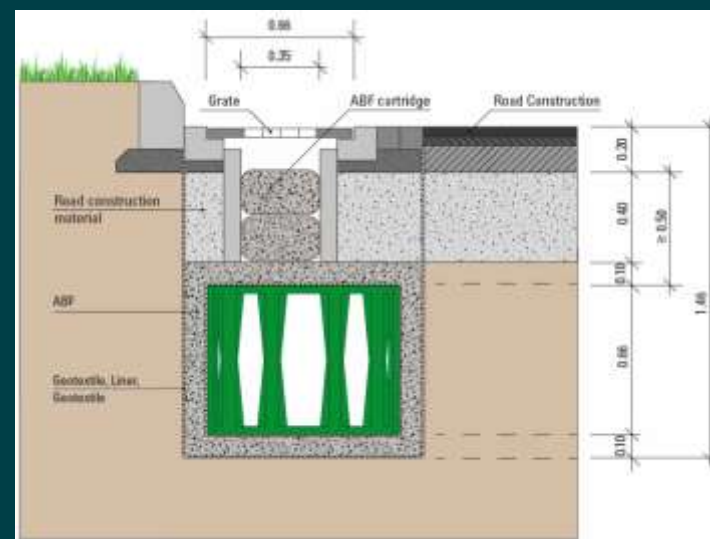
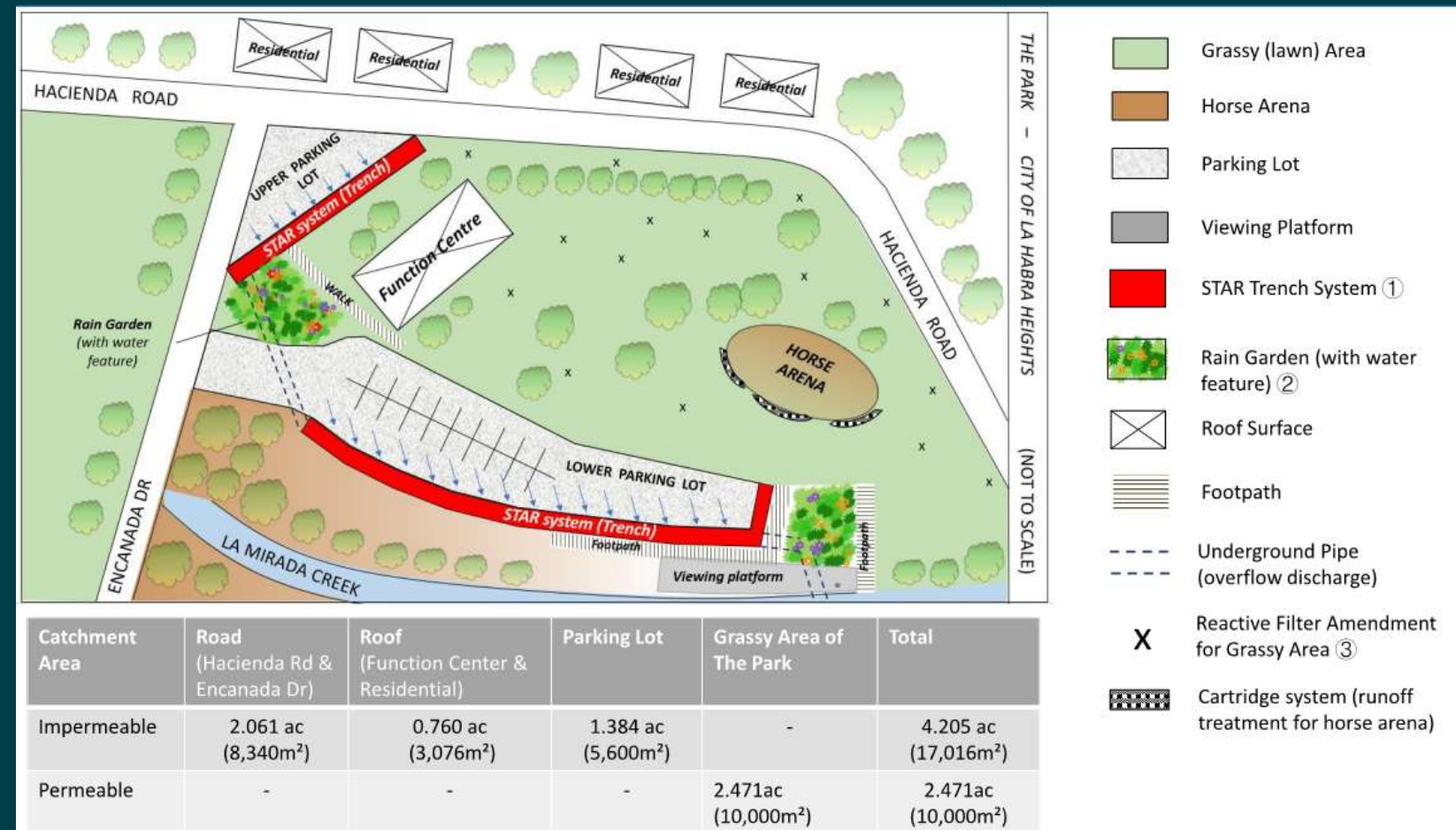
Year 2 \$416,279 (Const.)

COST SHARE? \$236,000

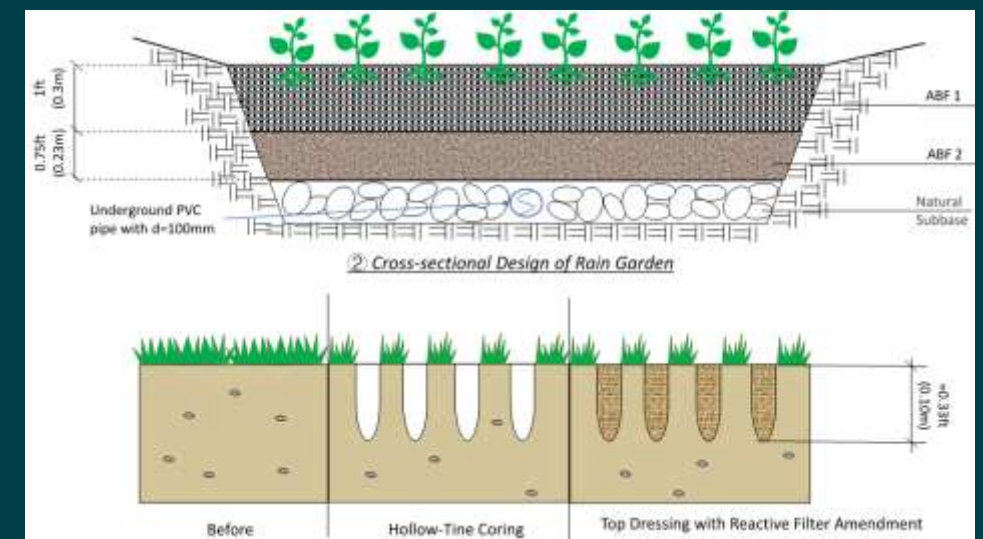
TOTAL CONSTRUCTION COST: \$520,348

PROJECT FEATURES:

- Captures water from 4.2 acres
- Improve Flood Management
- Enhance/Restore Park Space
- Improves Public Access to Waterways
- Enhance Recreational Opportunities
- Reduce Heat Local Island Effect
- Increase Tree Count



Cross-sectional Design/Mechanisms of STAR system (in meters)



Reactive Filter Amendment for Grassy Area

LSGR WATERSHED AREA FY23-24 PROJECT APPLICANT PROGRESS PARK STORMWATER CAPTURE PROJECT

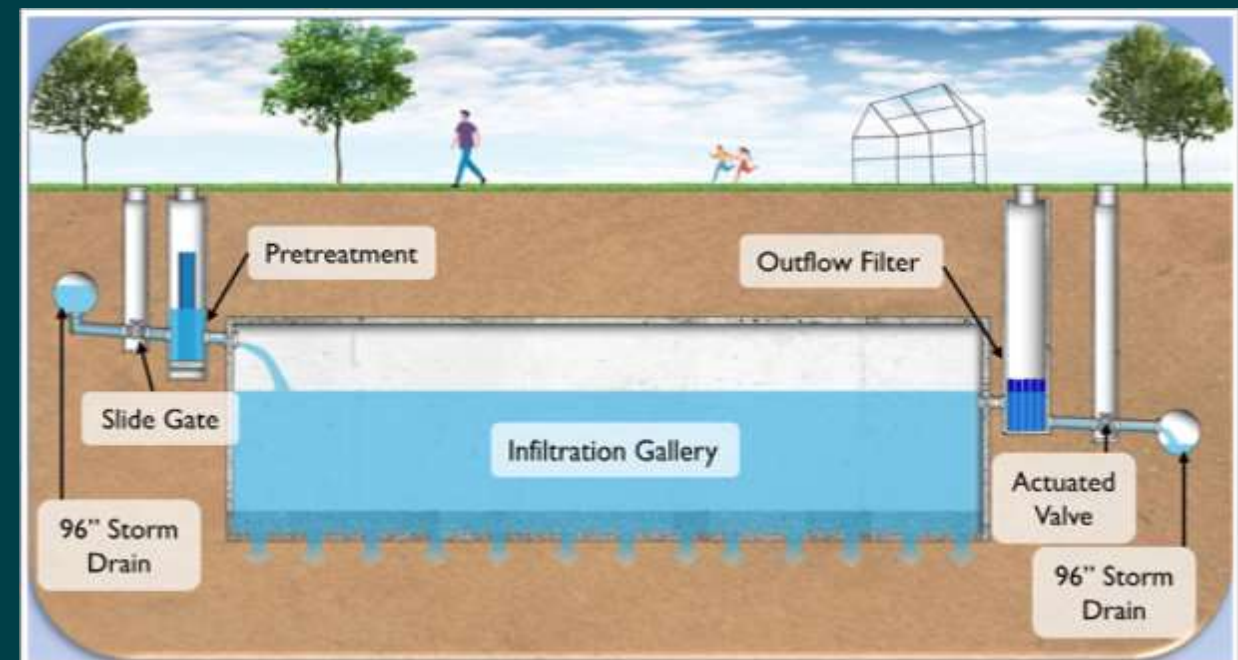
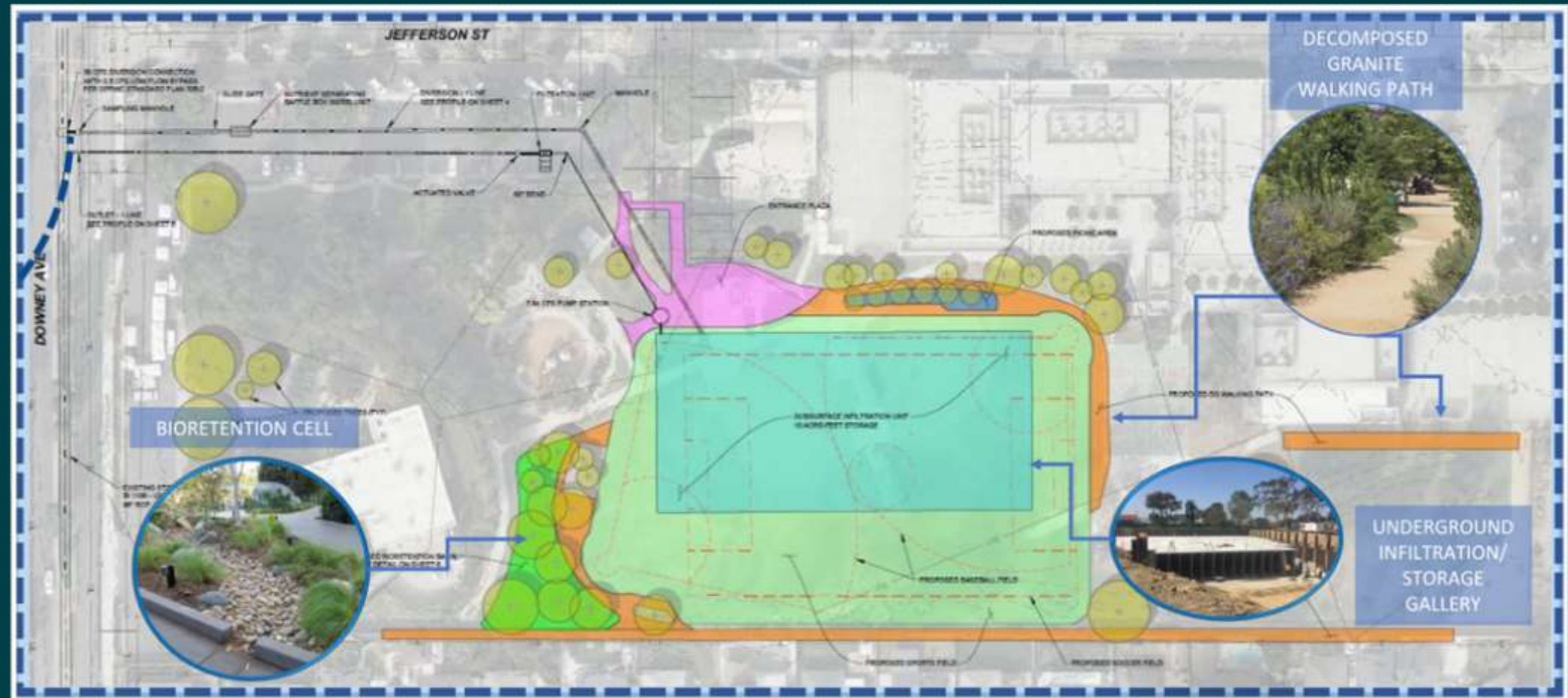


Regional stormwater capture and infiltration/filtration facility, new soccer fields, and pedestrian walking path at Progress Park.

PROJECT LEAD:	City of Paramount
BMP TYPE:	Infiltration Facility
LOCATED IN DISADVANTAGED COMMUNITY(DAC)?	Yes
BENEFITS DAC?	Yes
SCORING COMMITTEES SCORE	73
TOTAL MEASURE W FUNDING REQUEST:	\$2,161,744
FUNDING YEAR	AMOUNT
Year 1	\$2,161,744 (Design)
COST SHARE?	No
CONSTRUCTION COST:	\$19,971,243

PROJECT FEATURES:

- Captures water from 729 acres
- Improve Flood Management
- Enhance/Restore Park Space
- Enhance Recreational Opportunities
- Enhance Green Space at School
- Reduce Heat Local Island Effect
- Increase Tree Count



LSGR WATERSHED AREA FY23-24 PROJECT APPLICANT REGIONAL PATHOGEN REDUCTION STUDY



A study to leverage recent research to produce strategies that prioritize the highest risk sources of human pathogens, protect public health more effectively and efficiently, and can be incorporated into Water Management Programs and Enhanced Watershed Management Programs (E/WMP).

PROJECT LEAD: Gateway Water Management Authority
WATERSHED AREAS: LSGR, Rio Hondo, Central Santa Monica Bay, Upper Los Angeles River

TOTAL MEASURE W FUNDING REQUEST FOR ALL WATERSHED: \$5,103,473.48

MEASURE W FUNDING REQUEST FROM LSGR WATERSHED: \$ 1,007,287.12

<u>FUNDING YEAR</u>	<u>AMOUNT</u>
Year 1	\$ 44,169.54
Year 2	\$ 309,186.78
Year 3	\$ 265,017.24
Year 4	\$ 288,184.85
Year 5	\$ 100,728.71

COST SHARE? No

TECHNICAL STUDY OUTCOME:

- Determine sources of the highest risk to human health.
- Identifying beaches and inland waterbodies within the MS4 Permit area where risk to human health is higher so that E/WMPs can target those areas earlier during the implementation process.
- Identify management actions to address high-risk sources and areas more effectively.

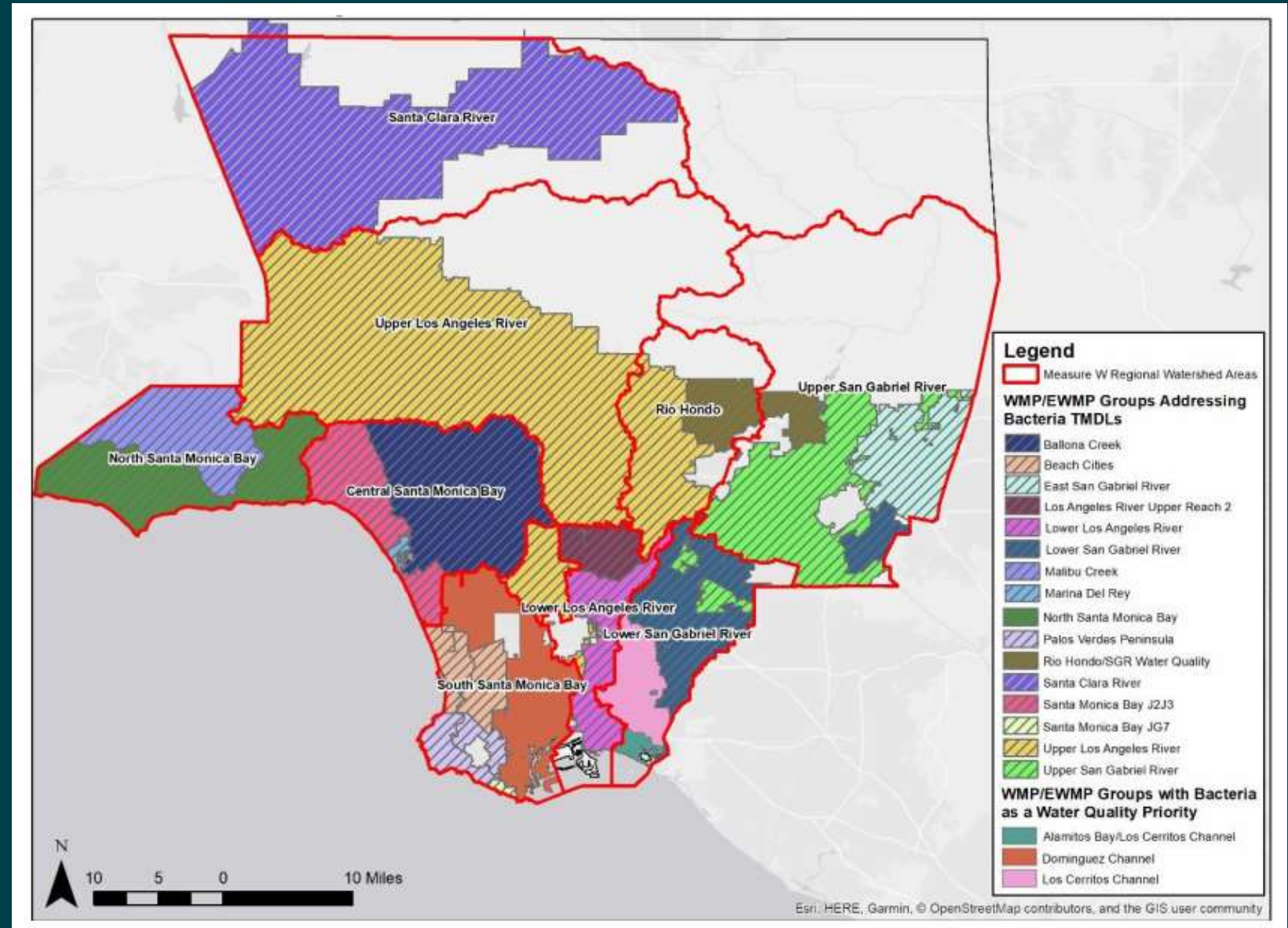


Figure 1. Watershed Management Program/Enhanced Watershed Management Program Groups Addressing Bacteria and SCWP Watershed Areas

LSGR WATERSHED AREA FY23-24 PROJECT APPLICANT TARGETED HUMAN WASTE SOURCE REDUCTION STRATEGY TO ADDRESS BACTERIA RELATED COMPLIANCE OBJECTIVES FOR THE LOS CERRITOS CHANNEL



Data-driven framework to guide and prioritize source ID and abatement efforts, focusing on reducing sources of human waste for bacteria.

PROJECT LEAD: Gateway Water Management Authority

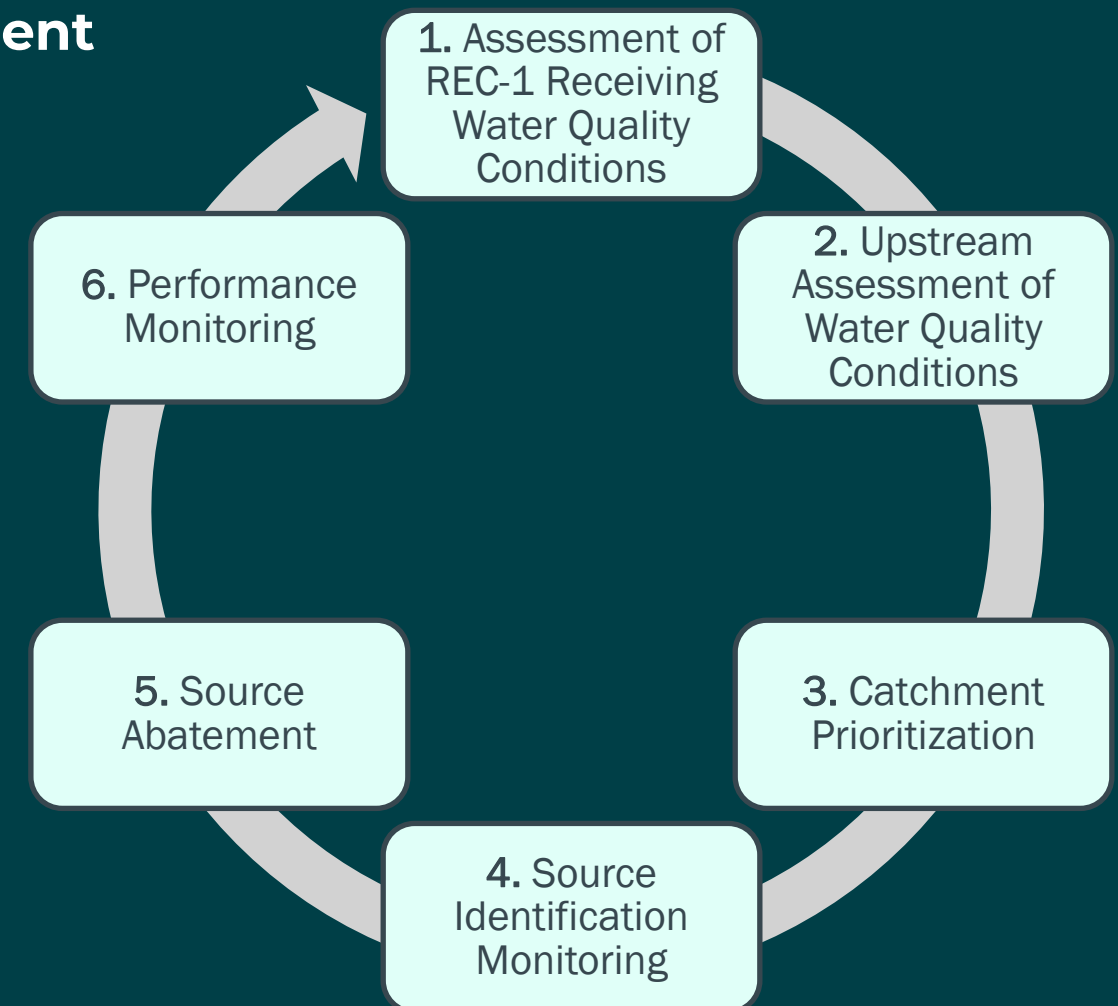
TOTAL MEASURE W FUNDING REQUEST: \$475,000

<u>FUNDING YEAR</u>	<u>AMOUNT</u>
Year 1	\$ 175,000
Year 2	\$ 300,000

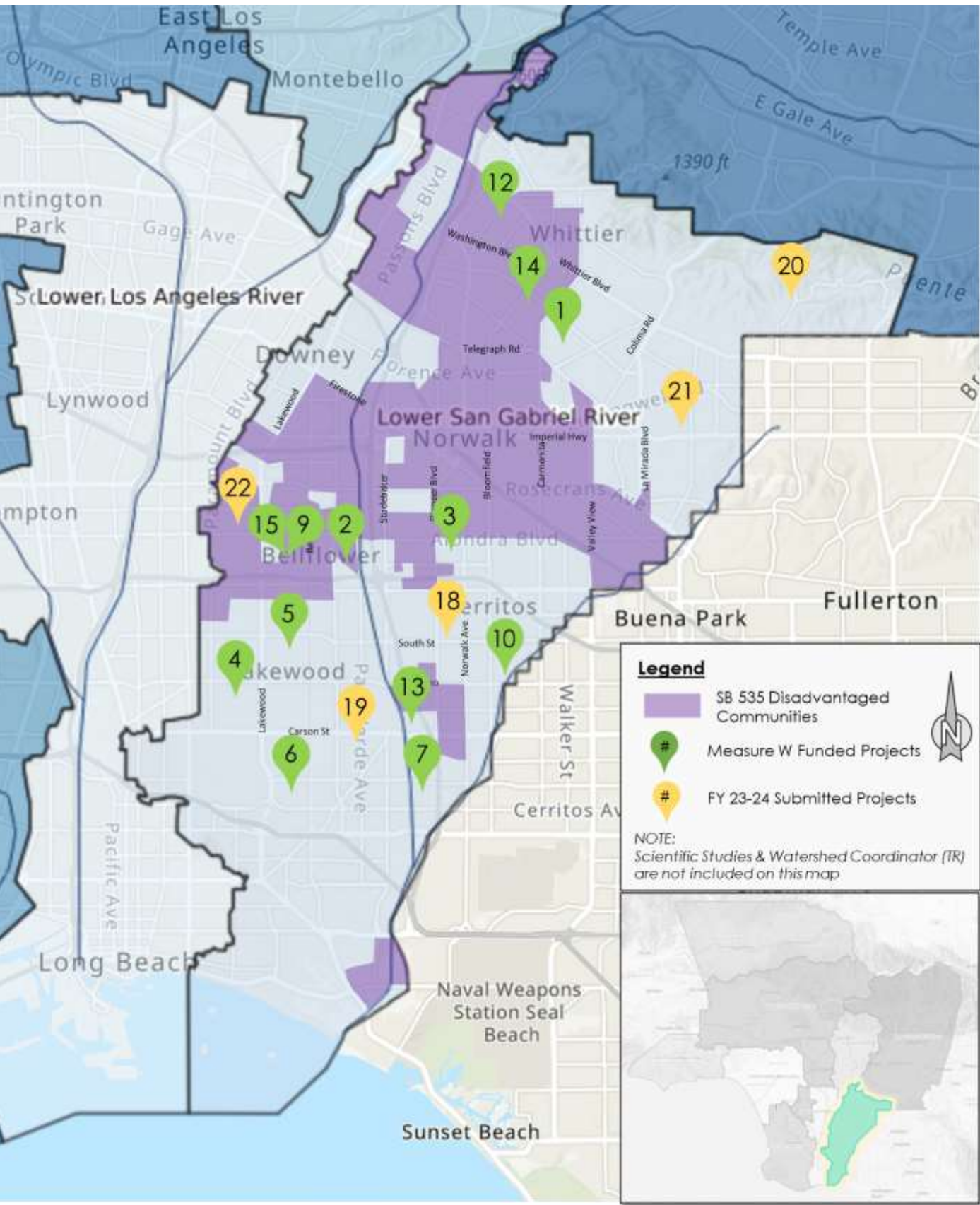
COST SHARE? No

TECHNICAL STUDY OUTCOME:

- Develop a risk-based framework to expeditiously reduce public health risks and demonstrate compliance with bacteria objectives.
- Characterize highest priority areas in the watershed to invest in resources based on water quality conditions, potential sources of human waste, and influence on impaired receiving waters.
- Prioritize identification and abatement of human sources of waste.
- Identify recommended abatement strategies to reduce the recreational health risk in downstream receiving waters progressing towards the bacteria compliance objectives.
- Utilize recent scientific advancements in development of human markers and diagnostic tools for focused source control efforts
- Collect paired fecal indicator bacteria and human marker data to support evaluation of water quality conditions and human health risk levels.
- Educate and outreach to stakeholders on bacteria issues.
- Provide technical resources to inform and be leveraged by similar efforts in region.

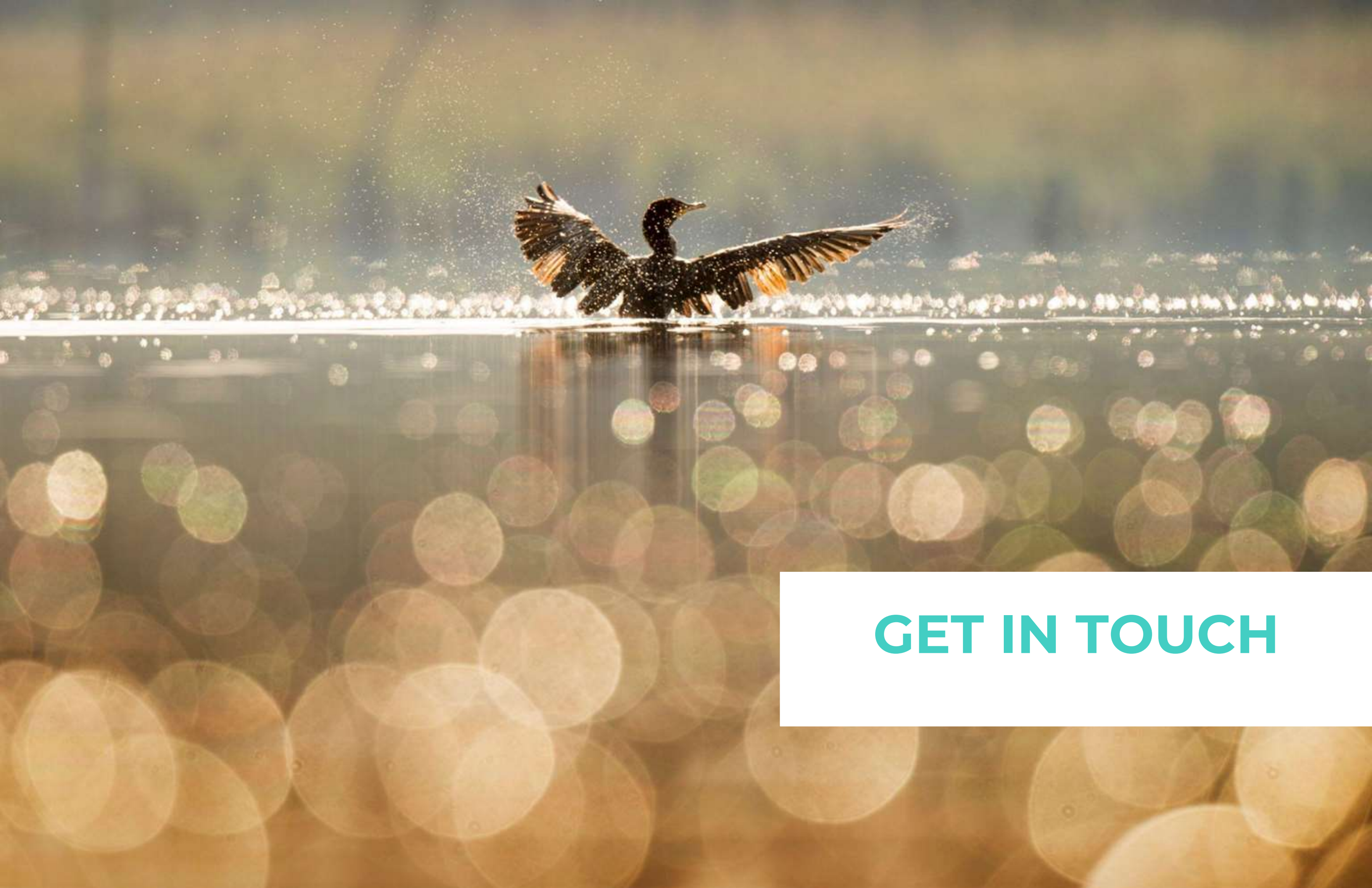


LSGR – SCWP PROJECTS FUNDED AND UNDER CONSIDERATION



Project Name	DAC Benefit	BMP Type	Planning/Design	Construction	O&M	Technical Resource/ Scientific Study	Cost Share	Measure W Funding	SIP Year	Project Developer
			\$M	\$M	\$M	\$M	\$M	\$M		
1 Adventure Park Multi-Benefit Stormwater Capture	N	D		\$ 13.5			\$ 15.0	\$ 13.5	20-21	Unincorp. County Area of Whittier
2 Caruthers Park	Y	I			\$ 0.9		\$ 13.0	\$ 0.9	20-21	Bellflower
3 Hermosillo Park	Y	I	\$ 4.1	\$ 16.0				\$ 20.1	20-21	Norwalk
4 Bolivar Park	Y	I			\$ 1.3		\$ 11.0	\$ 1.3	20-21	Lakewood
5 Mayfair Park	Y	T			\$ 1.3		\$ 15.0	\$ 1.3	20-21	Lakewood
6 Skylinks Golf Course at Wardlow Stormwater Capture Project	N	T	\$ 2.7	\$ 7.8				\$ 10.4	20-21	Long Beach
7 El Dorado Regional Project	Y	T	\$ 3.0				\$ 0.1	\$ 3.0	20-21	Long Beach
8 Watershed Coordinator	N/A	TR				\$ 1.0		\$ 1.0	20-21	LA CFCD
9 Bellflower Simms Park Stormwater Capture	Y	T	\$ 2.1				\$ 5.6	\$ 2.1	21-22	Bellflower
10 Cerritos Sports Complex	Y	T	\$ 2.4					\$ 2.4	21-22	Cerritos
11 Gateway Area Path Finding Analysis	N/A	SS				\$ 0.1		\$ 0.1	21-22	GWMA
12 Sorensen Park Multi-Benefit	Y	TR				\$ 0.3		\$ 0.3	21-22	LA County PW
13 Lakewood Equestrian Center	Y	T	\$ 1.1				\$ 0.4	\$ 1.1	22-23	Lakewood
14 York Field Stormwater Capture	Y	I	\$ 1.9				\$ 0.6	\$ 1.9	22-23	Whittier
15 Bellflower Simms Park Stormwater Capture	Y	T		\$ 13.7			\$ 0.9	\$ 13.7	22-23	Bellflower
16 Gateway Area Path Finding Analysis Ph 2	N/A	SS				\$ 0.2		\$ 0.2	22-23	GWMA
17 Microplastics in LA County Stormwater	N/A	SS				\$ 0.2	\$ 0.1	\$ 0.2	22-23	Dr. A. Gray, UC Riverside
SubTotal			\$ 17.3	\$ 51.0	\$ 3.4	\$ 1.9		\$ 73.5		
18 Artesia Park Urban Runoff Capture	Y	T	\$ 1.6					\$ 1.6	23-24	Artesia
19 Heartwell Park at Palo Verde Channel Stormwater Capture	N	T	\$ 1.5	\$ 1.8				\$ 3.3	23-24	Long Beach
20 La Habra Heights Stormwater Treatment and Reuse	Y	BF		\$ 0.7				\$ 0.7	23-24	La Habra Heights
21 La Mirada Creek Park	N	BR		\$ 5.8			\$ 1.0	\$ 5.8	23-24	La Mirada
22 Progress Park Stormwater Capture	Y	I	\$ 2.2				\$ 2.2	\$ 2.2	23-24	Paramount
23 Regional Pathogen Reduction	N/A	SS				\$ 1.0		\$ 1.0	23-24	GWMA
24 Targeted Human Waste Source Reduction Strategy	N/A	SS				\$ 0.5		\$ 0.5	23-24	GWMA
Subtotal			\$ 5.3	\$ 8.3	\$ -	\$ 1.5		\$ 15.0		
Total			\$ 22.6	\$ 59.3	\$ 3.4	\$ 5.2		\$ 88.6		

LEGEND
 BMP Type: BF=Biofiltration; BR=Bioretention; D= Diversion to Sanitary Sewer; I = Infiltration Facility; T = Treatment Facility; TR = Technical Resource; SS = Scientific Study
 Located in SB 535 Disadvantaged Communities



GET IN TOUCH

Clean Water Vision

Get Involved! Share your ideas with us!

Sign up for Lower San Gabriel River
Watershed Area Information and Events!

Visit us at:

cleanwatervision.com

Email us at:

lsgr@ohanavets.com

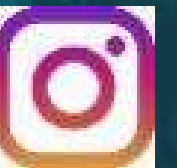
Follow us on social media!

[@lsgrwatershed](https://www.instagram.com/lsgrwatershed)

Community Outreach
Ideas?

Project Ideas?

Partnership
Ideas?



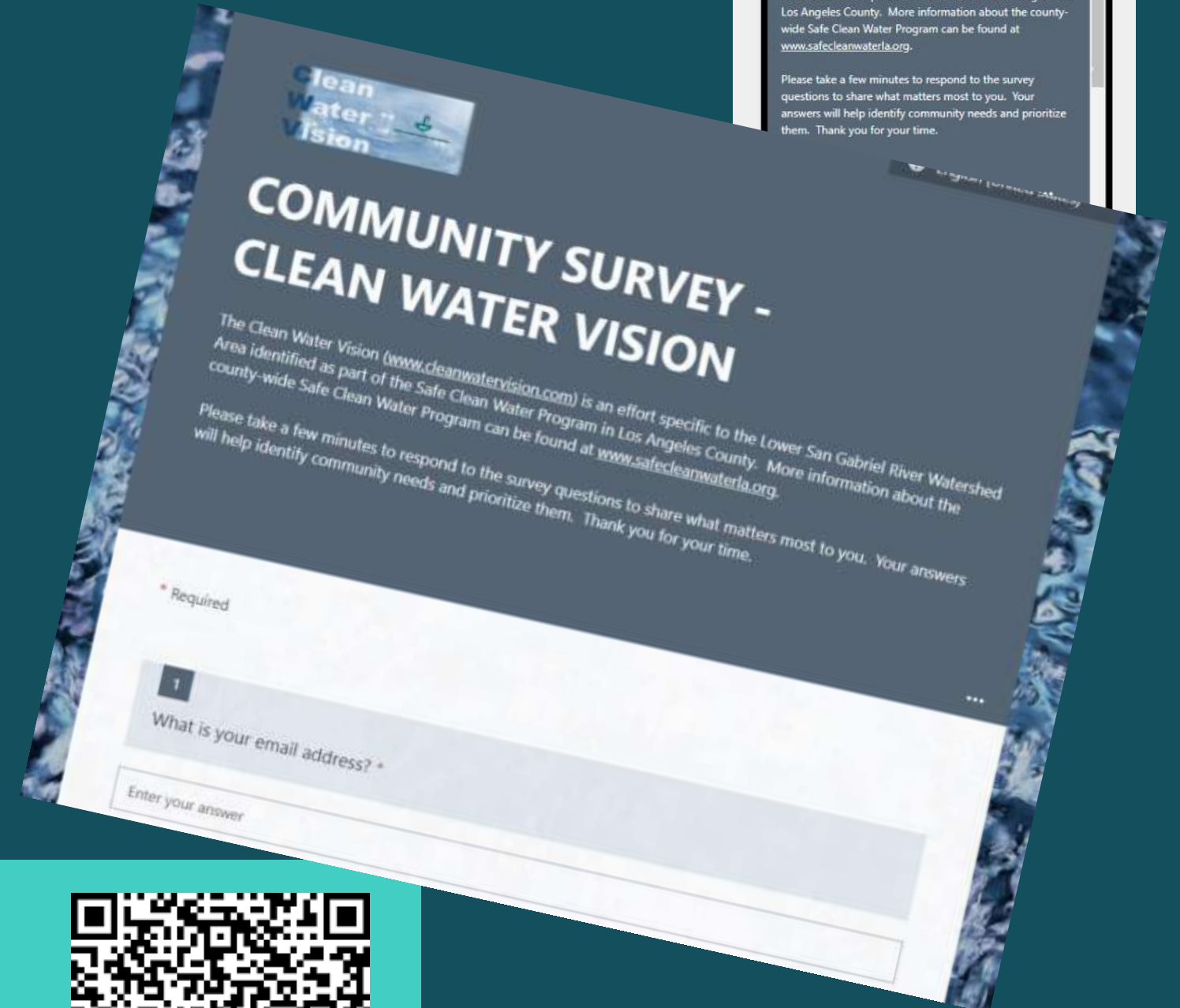
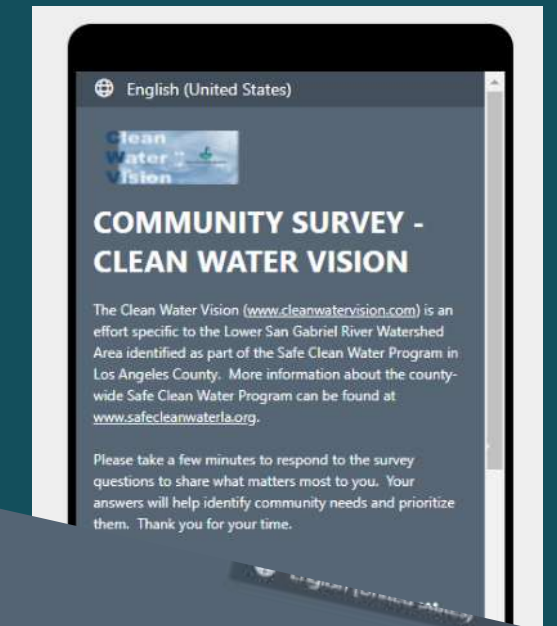
SAFE CLEAN WATER L.A.

TAKE OUR 2 MINUTE COMMUNITY NEEDS SURVEY

What water issues concern you the most?

What does your community need more of?

What outdoor areas need improvement?



LSGR Watershed Area
Community Survey

www.cleanwatervision.com





QUESTIONS? DISCUSSION?

