Why Watershed Planning?

Board Motions:

- July 25, 2023 – **Accelerating Implementation of the Safe, Clean Water Program**
- November 23, 2023 – **Board Motion 120 Day Report Back**
- March 19, 2024 – **Progress and Adaptive Management of the Safe, Clean Water Program**

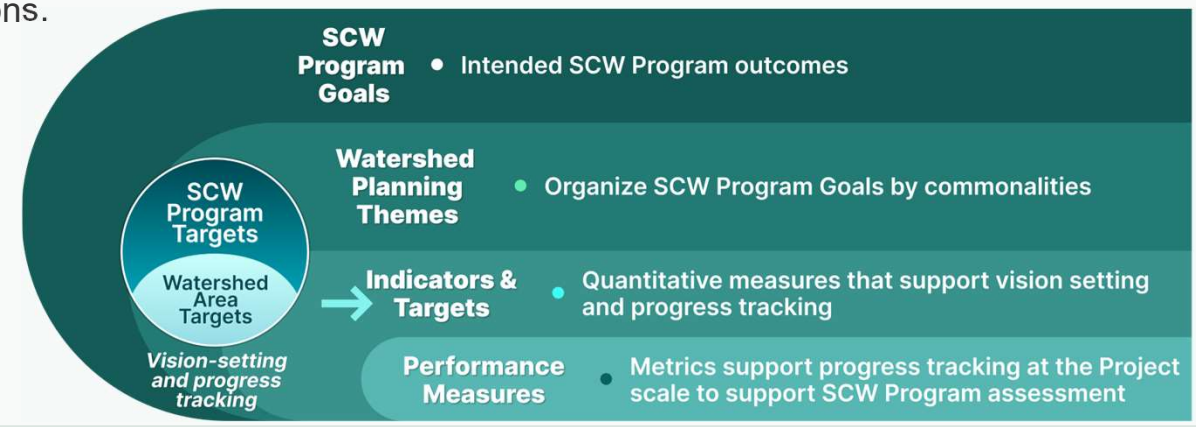
Biennial Report Recommendations:

The Board of Supervisors, Public Works, Governance Committees, and other practitioners recognized the added value in centralized leadership to set specific targets, drive strategic investments towards those targets, and facilitate adaptive management.

What is a SCWP Watershed Plan?

A collaboratively-developed strategic plan (with accompanying tools) that:

- Identifies meaningful opportunities for multi-benefit investments (but does not prescribe specific projects) to advance SCWP Goals within each of the unique SCWP Watershed Areas.
- Articulates targets (desired outcomes) as well as strategies and actions to plan for, achieve, and track progress towards those targets.
- Guides the region to best invest and leverage SCWP funding across all 3 subprograms.
- Proactively directs implementation – i.e., empowers the region to implement using the same language and to lead the strategic pursuit of shared countywide targets through Watershed Area-specific contributions.



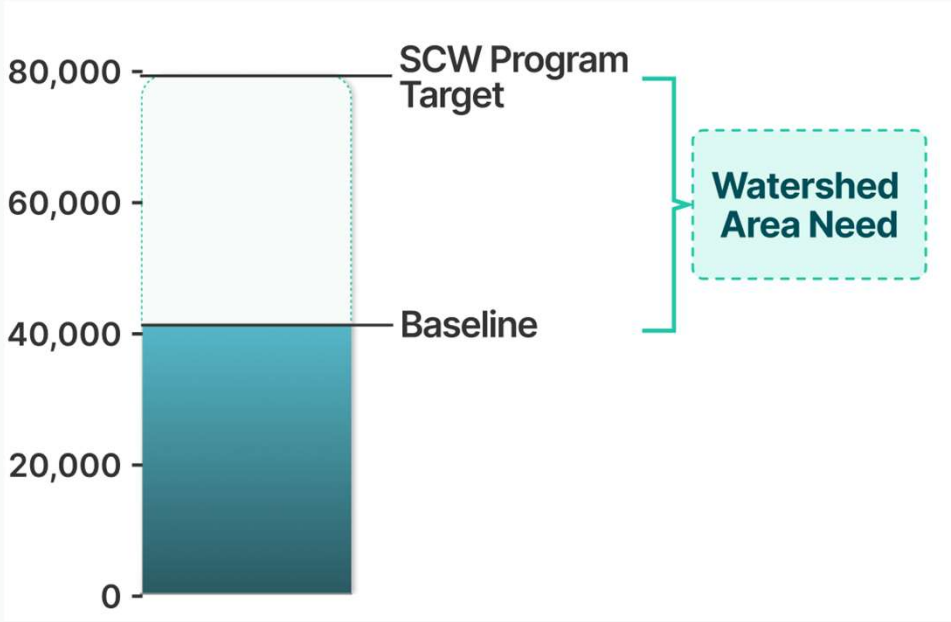
How should everyone use them?

To collaboratively plan, implement, track, and assess SCWP investments.

- Project developers will partner with interested parties to craft strategic proposals and will be required to describe alignment in applications and reports
- Committees will review for alignment
- Public Works will apply lessons learned to inform adaptive management (e.g., Feasibiility Study Guidelines & scoring revisions, supplemental guidance, etc)

Key Definitions

SCWP Targets = Desired numeric outcomes associated with SCWP investments
Baselines = Anticipated numeric benefits of projects funded to date
Watershed Area Needs = The difference between baselines and targets



SCW Program: Watershed Planning Next Steps

- Public Review period anticipated to start on **Thursday, August 14th** following August ROC Meeting (ending on **Sunday, September 28th).**
  - Parallel public notice of SCWP Feasibility Study Guidelines addendum (adding requirement to describe alignment with Initial Watershed Plans).
  - Note: Municipal Program Annual Plan and reporting modules will have new required input fields to describe alignment.
- September ROC Meeting to discuss further (during review period).
- Comments will be collected from the public in writing, with the comment log to accompany revised plans.
- Submit your Comments and Questions during Public Review to wppubliccomment@dpw.lacounty.gov

SAFE CLEAN WATER PROGRAM

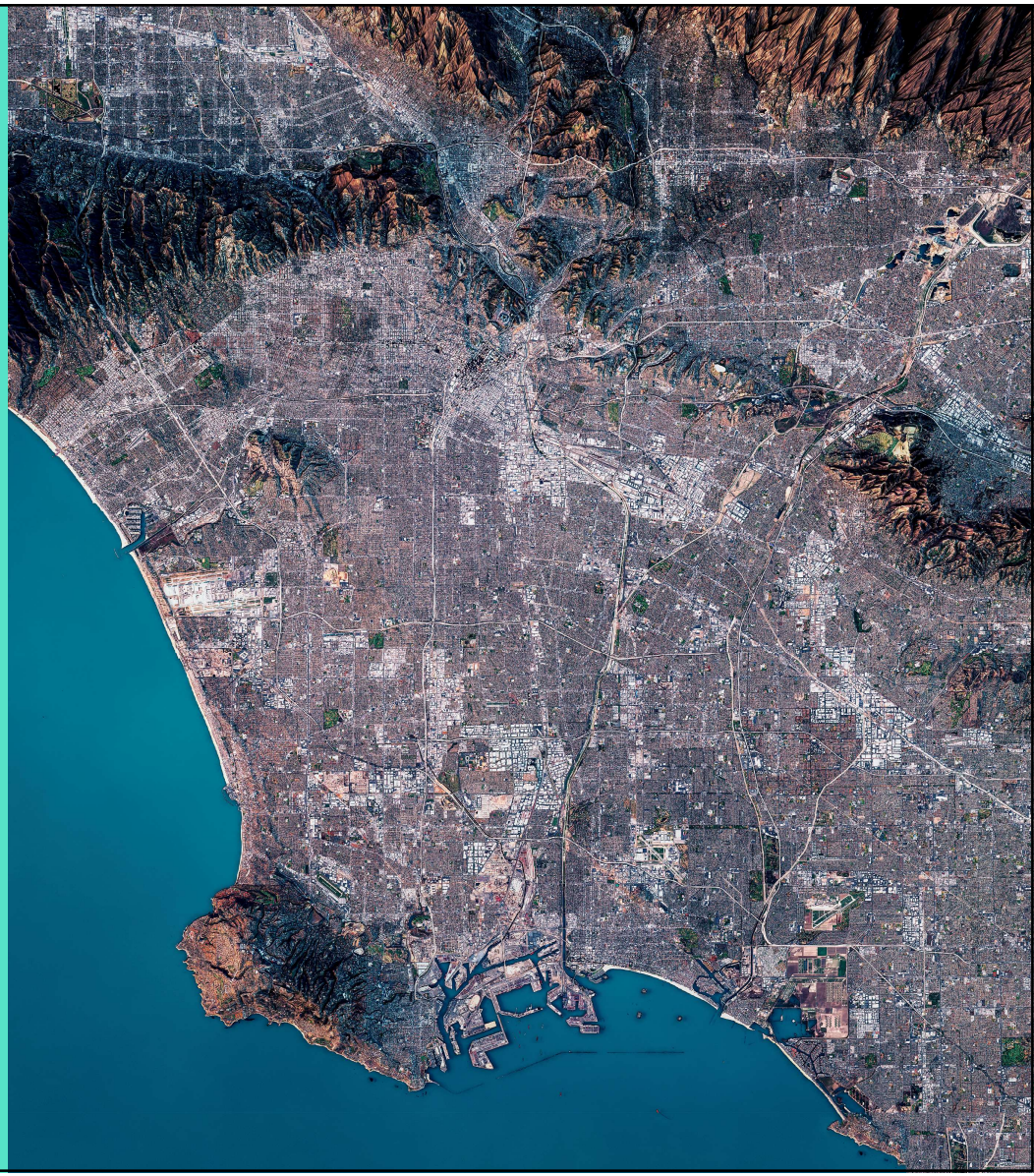
Watershed Planning Technical Information Session

PRESENTED BY:

JUSTIN JONES, P.E.
JASON JADE PEPITO, P.E.

LOS ANGELES COUNTY PUBLIC WORKS
SCW WATERSHED PLANNING SECTION

AUGUST 12, 2025



What We're Covering Today

Part 1 – Watershed Planning Recap

1. Key Elements of Watershed Planning
2. Engagement Efforts
3. Overview of Initial Watershed Plans
4. Recommended Use Cases
5. Baselines, Targets, Strategies, Actions, Opportunities

Q&A - Part 1

Part 2 – Technical Session

4. Planning Theme Deep Dive (WQ, WS (Drought Preparedness), & Community Investment)
5. Watershed Planning Timeline

Q&A Part 2

Why Watershed Planning?

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Biennial Report Recommendations:

The Board of Supervisors, Public Works, Governance Committees, and other practitioners recognized the added value in centralized leadership to set specific targets, drive strategic investments towards those targets, and facilitate adaptive management.

Watershed Planning has developed:

- Data, Tools, Guidance about achieving SCW Program **Goals**
- **Indicators (Metrics)** for measuring and selecting targets
- **Targets** related to the SCW Program Goals
- **Baseline (Snapshot of Progress)** already initiated towards the targets
- Understanding Watershed Area **Needs** to reach the targets
- **Strategies** for addressing needs to reach those targets
- **Opportunities,** Tools for decisions, planning, and tracking, progress towards targets

Inputs and Key Elements of Watershed Planning

Engagement

The SCW Program takes a collaborative approach to address the Los Angeles region's water resilience challenges.

The Initial Watershed Plans prioritize meaningful engagement and synthesize key efforts to date to inform WA characteristics, targets, and strategies that support strategic funding decisions and achievement of SCW Program Goals.

LEAGUE OF CALIFORNIA CITIES

OUR WATER LA

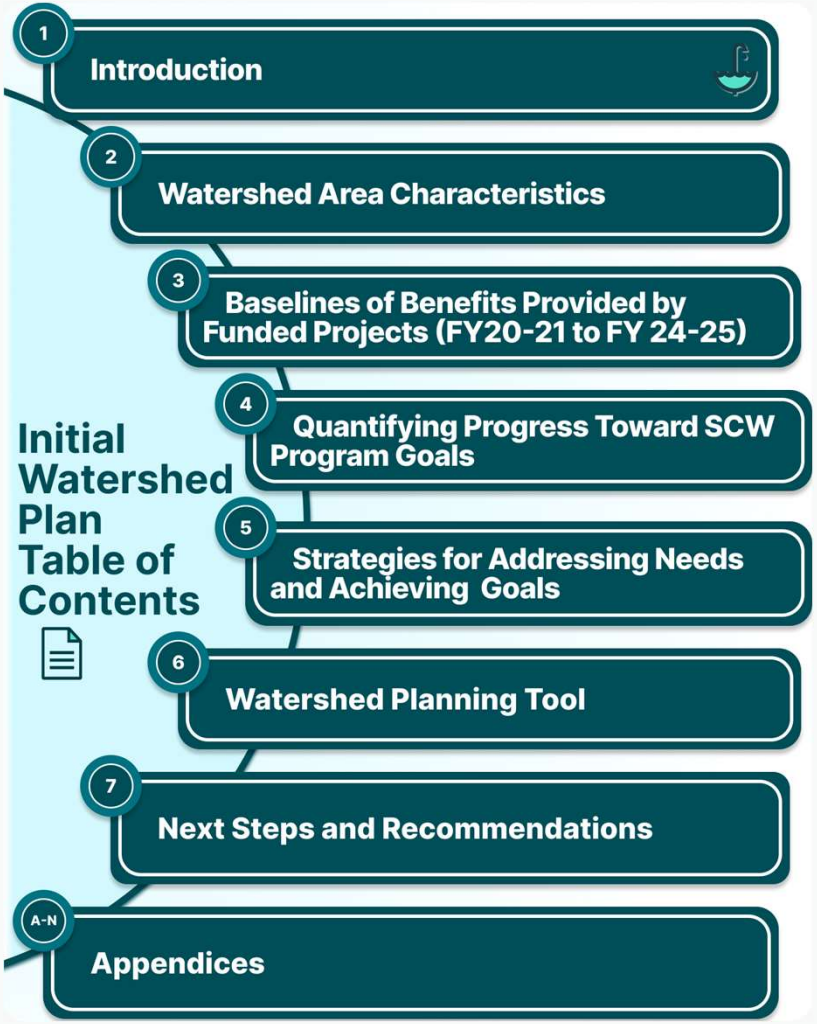
Rebuild SoCal Partnership

Santa Monica Bay Restoration Commission

- WASC Workshops (Rounds 1-3)
- ROC Community Investments Benefits and Benefit Ratios Working Group
- ROC Water Quality Working Group
- Watershed Area Task Force – Post Fire Efforts
- Schools and School Greening Advocates
- LA County MS4 Permit Group (Municipalities)

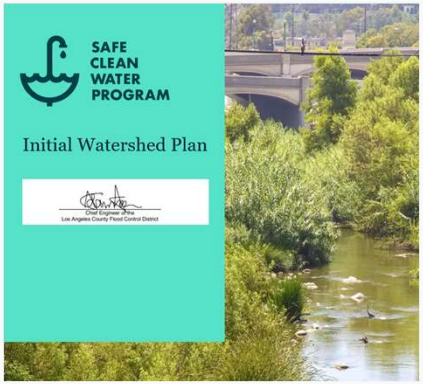
Overview of Initial Watershed Plans:

- Unique, customized Plans for each of the nine (9) Watershed Areas
- 7 Chapters and 14 Appendices
- Chapters 2-5 (Throughline)
- Executive Summary
- SCW Program Wide Executive Summary



Watershed Planning Requirement

Adopted by LACFCD



SIP and Planning Tool Integration

Recommended Initial Watershed Plan and Watershed Planning Tool Use Cases

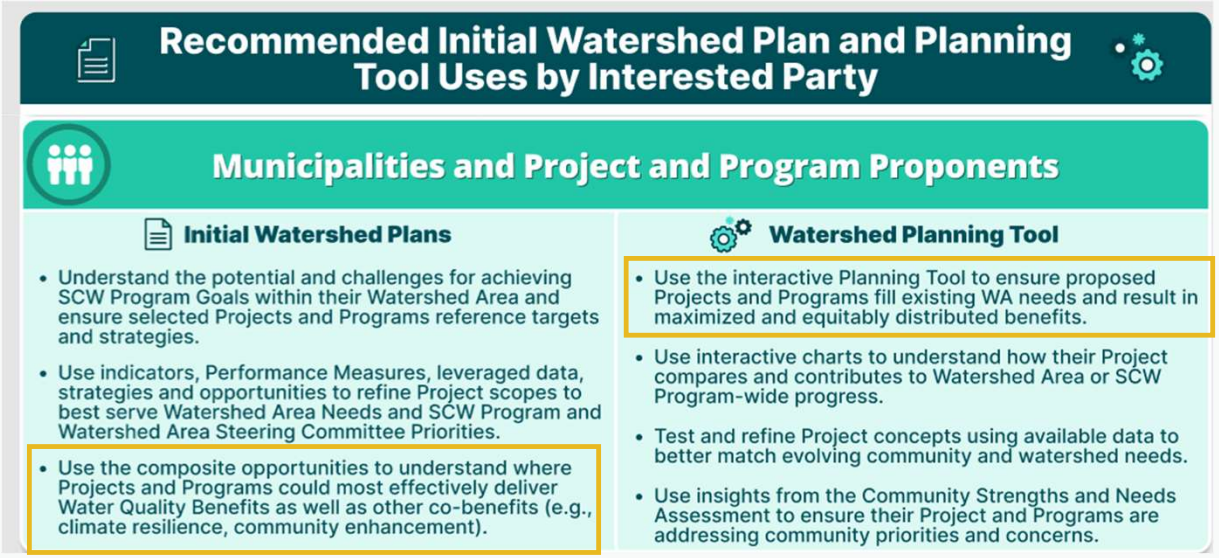
= Key Use

Other Uses:

- Get involved in planning through the 'Community Strengths and Needs Assessment' (CSNA) and engagement efforts related to community priorities and concerns

Recommended Initial Watershed Plan and Watershed Planning Tool Use Cases

= Key Use



IP/TRP Implementers:

- Work with Watershed Coordinators to maximize potential benefits

SS Implementers:

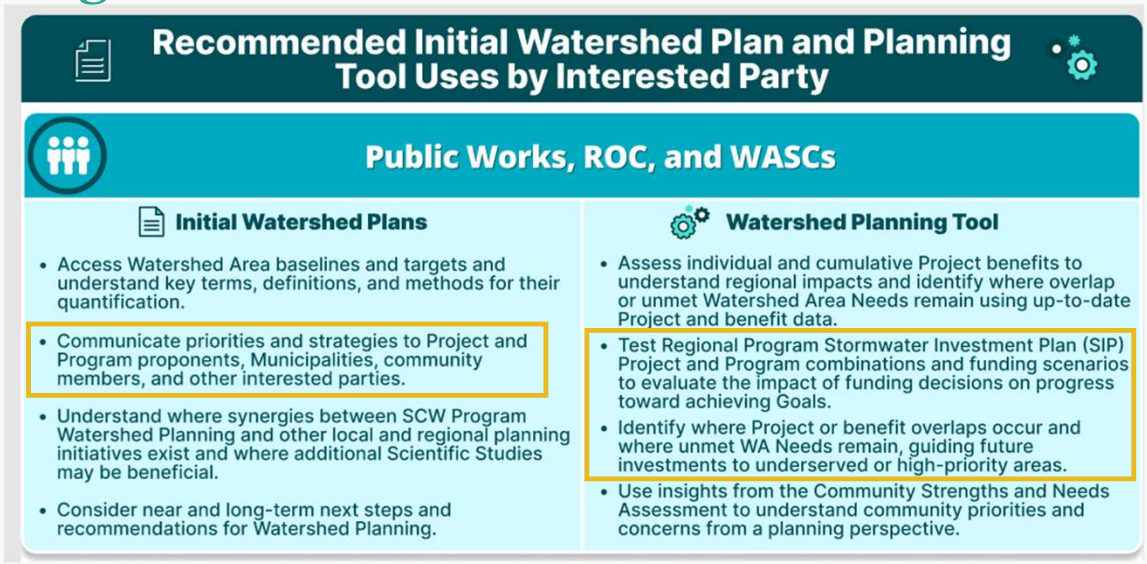
- Work with Scientific Study Advisory Committee to prioritize and develop studies

Municipalities:

- Work with PW/WASCs to identify opportunities for collaboration and co-funding

Recommended Initial Watershed Plan and Watershed Planning Tool Use Cases

= Key Use



WASC Members:

- Evaluate alignment of projects/studies with the plans

Scoring Committee:

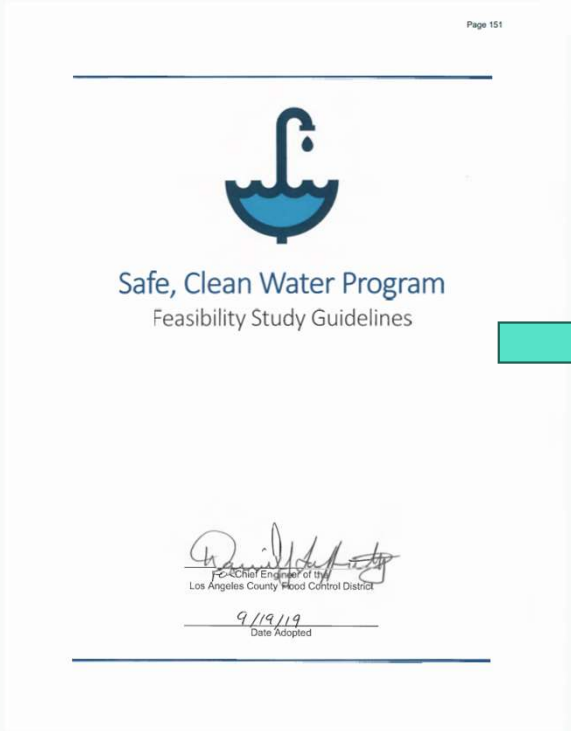
- Aid in scoring process and provide suggestions via annual Scoring Memo

Public Works:

- Identify and implement adaptive management priorities for Watershed Planning and the Program

SAFE CLEAN WATER PROGRAM

Alignment with SCW Program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Safe, Clean Water Program

Feasibility Study Guidelines

For Chief Engineer of the
Los Angeles County Flood Control District

9/19/19
Date Adopted

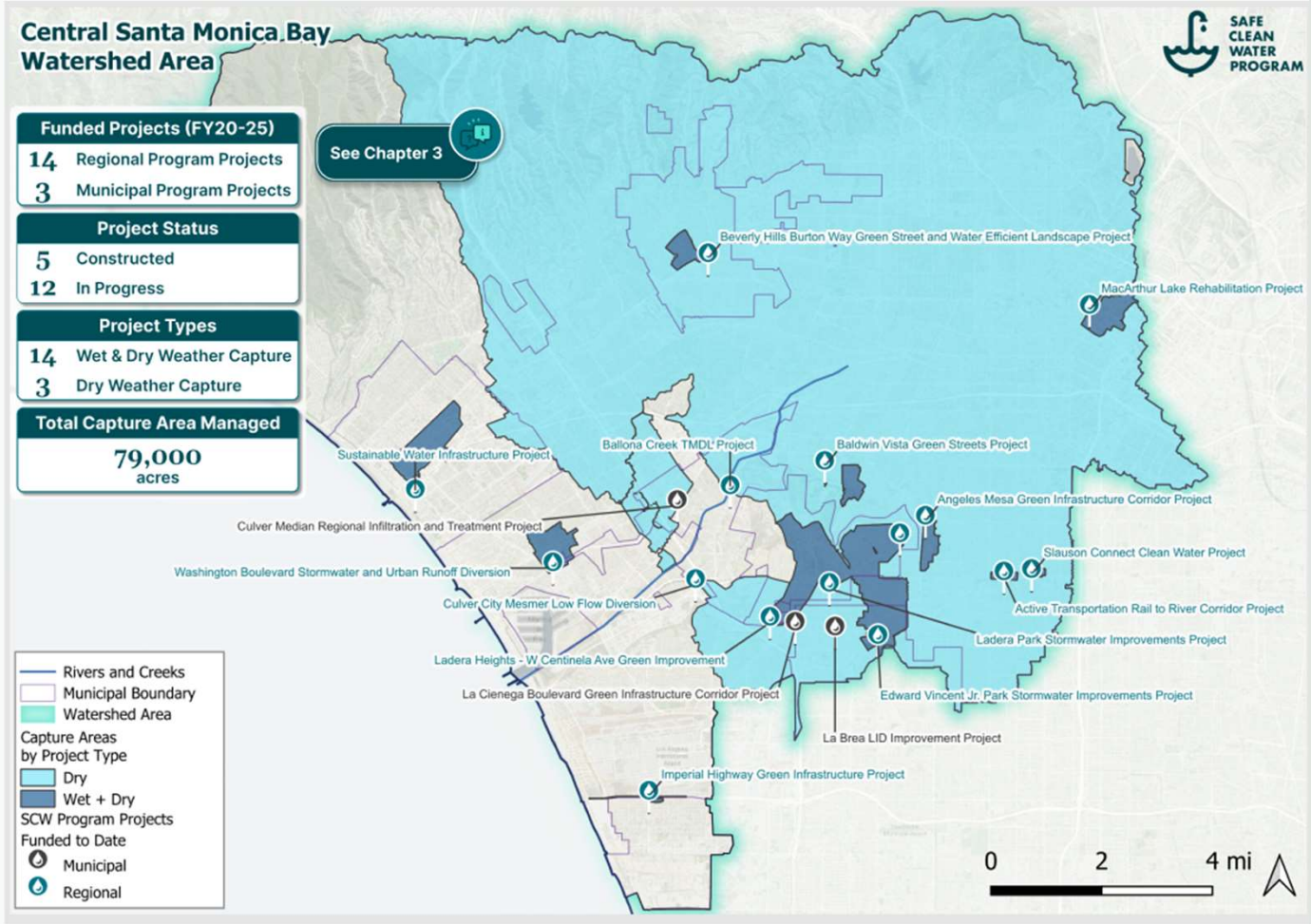
20. Align with WASC Initial Watershed Plan

Provide a detailed description of how this application aligns with your Watershed Area's watershed plan

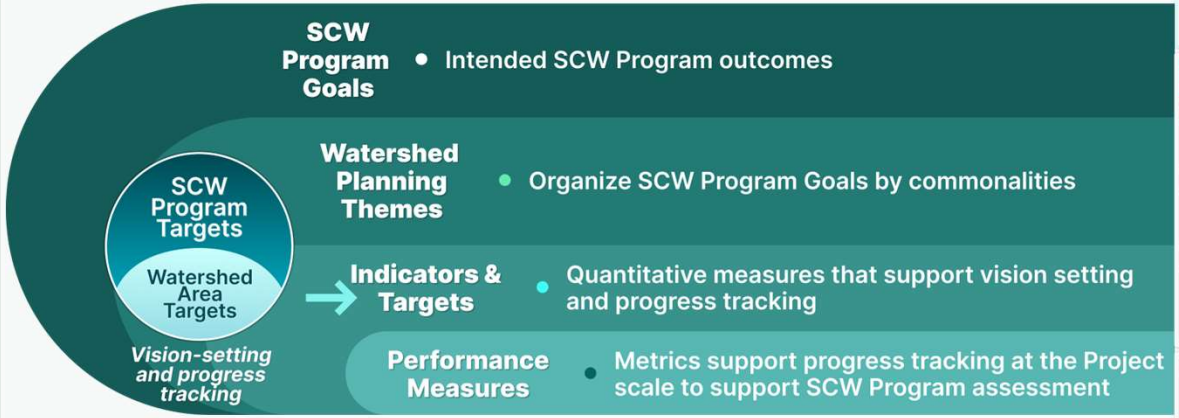
Description

Planning Baselines Incorporate Investments to Date

- Projects from SIPs (Regional Program)
- Projects from Annual Plans (Municipal Program)



Quantifying Progress Toward SCW Goals



Planning Theme	Improve Water Quality	Increase Drought Preparedness	Improve Public Health
SCW Program Goal Goal Description [LEGEND]	A SCW Program Goal (18.04.A) Improve water quality and contribute to attainment of water-quality requirements.	B SCW Program Goal (18.04.B) Increase drought preparedness by capturing more Stormwater and/or Urban Runoff to store, clean, reuse, and/or recharge groundwater basins.	C SCW Program Goal (18.04.C) Improve public health by preventing and cleaning up contaminated water, increasing access to open space, providing additional recreational opportunities, and helping communities mitigate and adapt to the effects of climate change through activities such as increasing shade and green space.

Deliver Multi-Benefits with Nature-Based Solutions & Diverse Projects	Leverage Funding & Invest In Research & Development	Equitably Distribute Benefits
E SCW Program Goal (18.04.E) Invest in infrastructure that provides multiple benefits.	D SCW Program Goal (18.04.D) Leverage other funding sources to maximize SCW Program Goals.	J SCW Program Goal (18.04.J) Provide DAC Benefits, including Regional Program infrastructure investments, that are not less than one hundred and ten percent (110%) of the ratio of the DAC population to the total population in each Watershed Area.
F SCW Program Goal (18.04.F) Prioritize Nature - Based Solutions.	H SCW Program Goal (18.04.H) Encourage innovation and adoption of new technologies and practices.	K SCW Program Goal (18.04.K) Provide Regional Program infrastructure funds benefitting each Municipality in proportion to the funds generated within their jurisdiction, after accounting for allocation of the one hundred and ten percent (110%) return to DACs, to the extent feasible.
G SCW Program Goal (18.04.G) Provide a spectrum of project sizes from neighborhood to regional scales.	I SCW Program Goal (18.04.I) Invest in independent scientific research.	

	Promote Green Jobs & Career Pathways	Ensure Ongoing Operations & Maintenance	Prioritize Meaningful Engagement
L SCW Program Goal (18.04.L)* Implement an iterative planning and evaluation process to ensure adaptive management.	M SCW Program Goal (18.04.M) Promote green jobs and career pathways.	N SCW Program Goal (18.04.N) Ensure ongoing operations and maintenance for Projects.	Meaningful engagement is fundamental to the achievement of all Goals.

** While not aligned with a specific theme, Goal L is supported by Watershed Planning as a whole.*

[Los Angeles County Flood Control District Code Chapter 16]

16.02.B. Provide funding for Programs and Projects to increase Stormwater and Urban Runoff capture and reduce Stormwater and Urban Runoff pollution in the District, including **Projects and Programs providing a Water Supply Benefit, Water Quality Benefit, and Community Investment Benefit.**

Recommended Strategies and Actions are Generated for each Watershed Area

Upper Los Angeles River Watershed Area Strategies

Improve Water Quality — SCW Program Goal A

- **1.1** Prioritize high performance Projects and Programs in areas with the highest pollutant loads
- **1.2** Improve water quality and mitigate post-fire runoff through targeted Nature-Based Solutions

Increase Drought Preparedness — SCW Program Goal B

- **2.1** Link MS4 compliance, groundwater recharge, and water reclamation planning to maximize stormwater capture for water quality and water supply*
- **2.2** Maximize stormwater runoff capture and management for water supply
- **2.3** Enhance local water supply through groundwater recharge, diversion to sanitary sewer, and onsite reuse
- **2.4** Enhance local water supply through enhancements to existing LACFCD major capture facilities

Improve Public Health — SCW Program Goal C

- **3.1** Evaluate open space and large lot potential, particularly on school campuses*
- **3.2** Create, enhance, and restore park and green space, especially in high-need communities**
- **3.3** Help communities most affected by extreme heat mitigate and adapt to the effects of climate change**

Deliver Multi-Benefits with NBS & Diverse Projects — SCW Program Goals E, F, G

- **4.1** Acknowledge, where feasible, other capital improvement programs that can contribute to regional outcomes*
- **4.2** Deliver nature-based, multi-benefit Projects and Programs that improve water quality while addressing community priorities and concerns
- **4.3** Advance fire-adapted communities by implementing multi-benefit Projects that employ NBS to reduce wildfire risk and enhance ecosystem resilience

Leverage Funding & Invest in Research & Development — SCW Program Goals D, H, I

- **5.1** Bolster SCW Program and regional coordination to support identification and communication of alternative funding sources and opportunities
- **5.2** Bolster the Scientific Study Program through enhanced review, coordination, and dissemination of results

Equitably Distribute Benefits — SCW Program Goals J, K

- **6.1** Consider historic land use disparities and environmental justice metrics across the SCW Program area*
- **6.2** Advance equity and prioritize new investments particularly in communities not currently served by a SCW Program Project or Program

Promote Green Jobs and Career Pathways — SCW Program Goal M

- **7.1** Prioritize smaller Projects for which construction and maintenance jobs are more likely to come from a local labor force
- **7.2** Invest in research and Programs that promote permanent career pathways
- **7.3** Coordinate job placement and partner with workforce training and pre-apprenticeship programs

Ensure Ongoing Operations & Maintenance for Projects — SCW Program Goal N

- **8.1** Maintain a skilled, local workforce to ensure quality construction and comprehensive operation & maintenance
- **8.2** Ensure sufficient resources are set aside for Project O&M and monitoring
- **8.3** Promote wildfire resilience through fire-resilient O&M protocols for Projects
- **8.4** Integrate post-construction monitoring data into O&M plans

Prioritize Meaningful Engagement

- **9.1** Promote meaningful and sustained outreach and engagement through regional coordination and expertise
- **9.2** Develop and bolster existing resources and support for Project and Program-specific engagement
- **9.3** Promote fire-adapted communities through enhanced education and outreach

*SCW Program-wide Priority Strategy based on engagement **Upper Los Angeles River WASC Priority Strategy based on engagement

Note: While some strategies may not explicitly reference water quality, in accordance with the SCW Program Implementation Ordinance.

3.3 Help communities most affected by extreme heat mitigate and adapt to the effects of climate change**

3.3.1 Utilize green infrastructure that reduces hardscape and optimizes Project footprints to maximize tree canopy, urban cooling, and shaded surfaces, thereby enhancing climate resilience. Project types may include green streets, tree wells, and other surface-based stormwater capture features, such as vegetated areas designed with integrated water storage capacity.	NEAR TERM	WASCs, Municipalities, Project proponents
3.3.2 Implement multi-benefit Projects that prioritize expanding tree canopy, enhancing urban cooling, and increasing shaded surfaces in communities most vulnerable to climate change by referencing the *Multiple Benefit Opportunity Across Planning Themes* layer.	NEAR TERM	WASCs, Municipalities, Project proponents
3.3.3 Select tree species based on drought tolerance, community preferences, shade provision capacity, and contributions to local biodiversity. Prioritize the planting, establishment, and maintenance of trees according to industry best management practices, as outlined in the *Recommended Tree Species for Los Angeles County and Best Management Practices for Tree Care* guidelines.	NEAR TERM	WASCs, Municipalities, Project proponents

Recommended Strategies, Actions, and Involved Parties

- Each strategy is composed of a series of actions
- WASC Priority Strategies are highlighted
- Recommended participants are listed

Upper San Gabriel River Watershed Area Strategies and Actions

Improve Water Quality

SCW Program Goal A

Watershed Area Needs (by 2038)

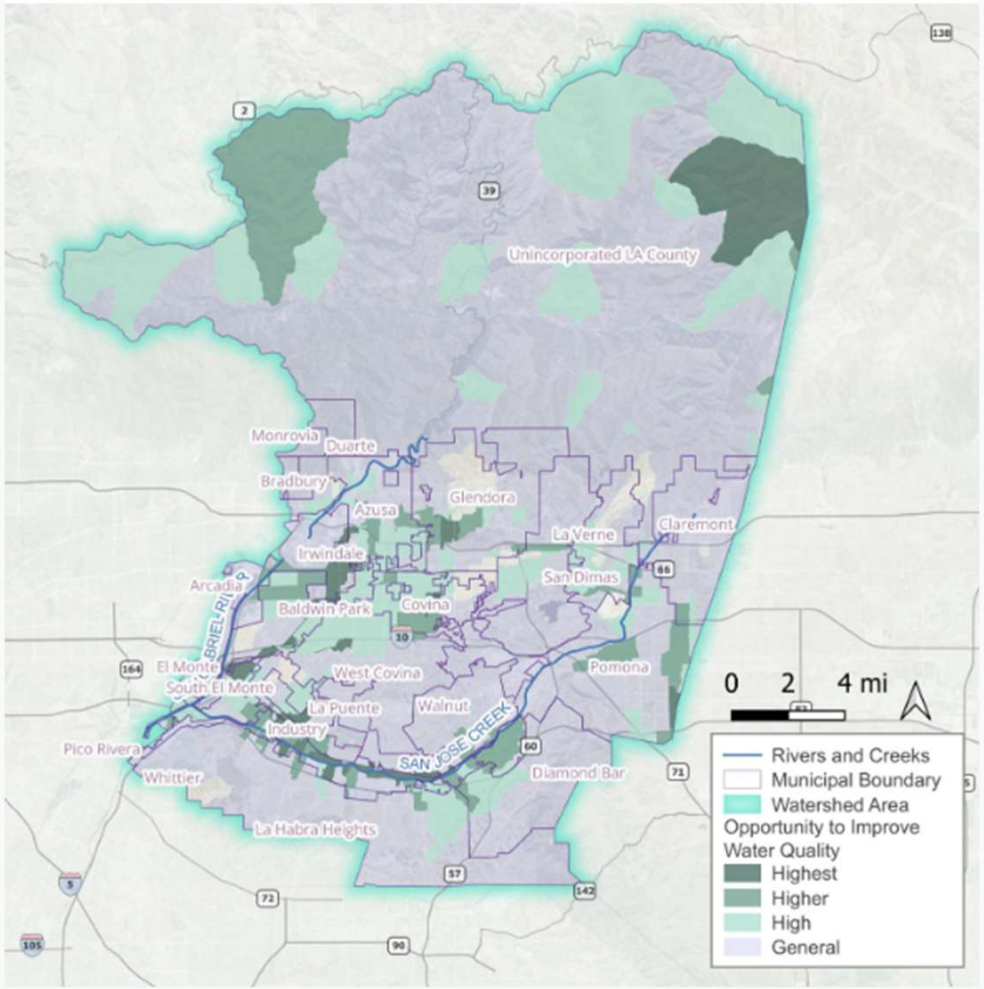
- **15,700** Zinc Load Reduction (lb/yr)
- **112,400** Total Phosphorus Load Reduction (lb/yr)
- **1,020 ac-ft** Approx. 24-hr Project Capacity to meet WQ WA Needs

Strategies	Action(s)		Who Should be Involved
1.1 Prioritize high performance Projects and Programs in areas with the highest pollutant loads	**1.1.1** Implement Projects where stormwater runoff is not currently managed by an existing stormwater capture Project or major capture facility by referencing the *Opportunity to Improve Water Quality and Increase Water Supply* composite layer.	NEAR TERM	WASCs, Municipalities, Project & Program proponents
	1.1.2 Prioritize wet-weather Projects for a **total estimated 24-hour Project capacity of approx. 1,020 ac-ft**, and which are located in areas with the highest average annual load reduction opportunity for zinc, total phosphorous, and bacteria. Reference the *Opportunity to Improve Water Quality* layer.	NEAR TERM	WASCs, Municipalities, Project proponents
	1.1.3 Invest in research to evaluate and standardize the quantification of bacteria, total DDT, total PCBs, and trash in managed and unmanaged stormwater runoff.	NEAR TERM	Public Works
	1.1.4 Support Municipalities in implementing small-scale and distributed Projects and encourage Municipalities to bundle multiple small Projects into larger funding applications where appropriate to maximize cost-efficiency.	NEAR TERM	Public Works, Municipalities
	1.1.5 Select a combination of regional Projects with distributed surface capture Projects, such as green streets.	LONG TERM	WASCs, Municipalities, Project proponents
	1.1.6 Address knowledge gaps pertaining to BMP treatment effectiveness and new treatment technologies through Scientific Studies to bolster Project effectiveness.	LONG TERM	Public Works, Scientific Study proponents
	1.1.7 Select and integrate post-construction monitoring metrics into Project reporting to support consistent evaluation and tracking of Project post-construction performance.	NEAR TERM	Public Works
1.2 Identify and prioritize priority MS4 outfalls for Project and Program implementation**	**1.2.1** Establish an approach for using regional water quality monitoring data collected through MS4 Programs to assess trends with regards to hydrology and water quality.	NEAR TERM	Public Works
	1.2.2 Build from the SCW Program Scientific Study *Load Reduction Strategy Adaptation to Address the LA River Bacteria TMDL for the Upper Los Angeles River Watershed Management Group* and Coordinated Integrated Monitoring Programs to identify priority MS4 outfalls for Project and Program implementation. Although this Scientific Study was not originally funded in the USGR WA, its findings may serve as a valuable reference to inform a Scientific Study specific to the USGR WA.	NEAR TERM	Public Works, Scientific Study proponents

****USGR WASC Priority Strategy based on engagement**

Opportunities Help Maximize Return on Investments by SCW Program

- Opportunities are mapping layers generated for each WA and Municipality to support Project selection



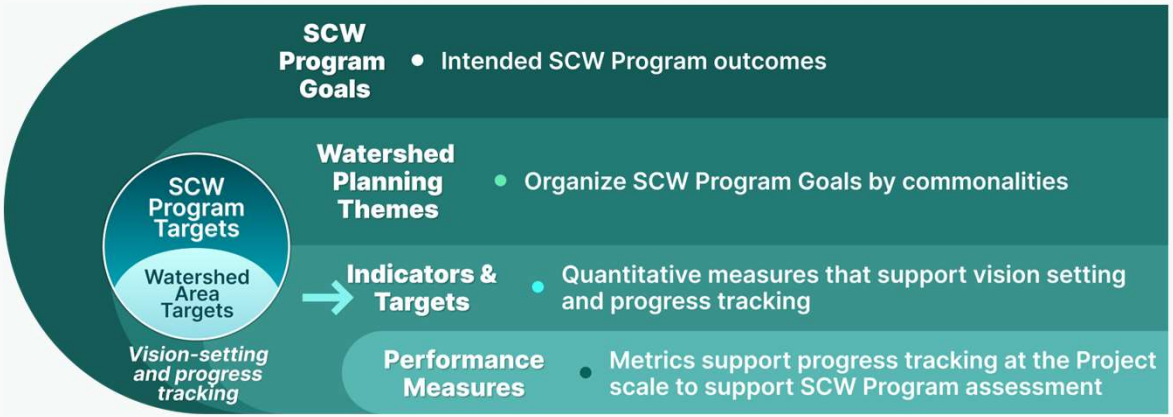
Q&A - Part 1

Please use the chat to ask questions regarding the methodology for Baselines, Targets, Strategies, Actions, Opportunities within Watershed Planning.

Questions and answers will also be distributed following the information session.

Part 2: Technical Session Objectives

- Highlighting key sections from Initial Watershed Plans to:
  - Identify meaningful **opportunities** for multi-benefit investments to advance SCWP Goals within each of the unique SCWP Watershed Areas.
  - Articulate **targets** (desired outcomes), as well as **strategies and actions,** to plan for, achieve, and track progress towards those targets.
- Three Watershed Area examples for each major benefit objective (Water Quality, Water Supply, CIB)
- Technical Session will detail how Indicators/Targets and Opportunities are developed



WATER QUALITY BENEFITS

Planning Theme: **Improve Water Quality**

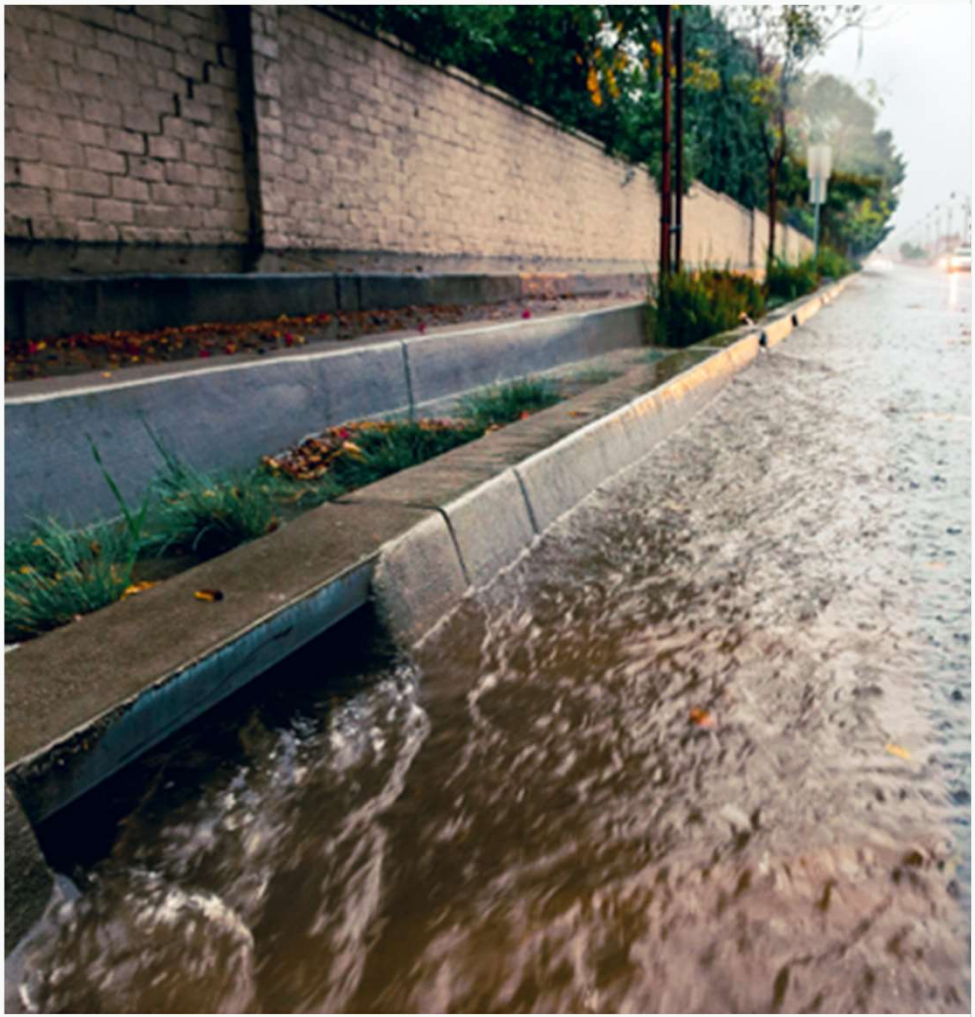
Improve Water Quality
A SCW Program Goal (18.04.A) Improve water quality and contribute to attainment of water-quality requirements.

Los Angeles County Flood Control District Code Chapter 16

16.05.D….Projects implemented through the Municipal Program **shall include a Water Quality Benefit.** Multi-Benefit Projects and Nature-Based Solutions are strongly encouraged.

16.05.D.1… Infrastructure Program. This program **shall implement Multi-Benefit watershed-based Projects that have a Water Quality Benefit**, as well as, either a Water Supply Benefit or Community Investment Benefit, or both. Infrastructure Program funds

Every Multi-Benefit Opportunity Area includes Water Quality Benefit



Improve Water Quality: Limiting Pollutant Indicators

Table H-8 Load reduction target references and methods

Indicator	Pollutant varies by Watershed (pounds or other loading unit/yr) [time horizon per WMPs]
Key Efforts & Countywide Targets Referenced	• WMPs Plans (LINK) • Gateway Area Pathfinding Analysis ○ "Focusing decisions directly on pollutant reductions is the best way towards ensuring actions have the intended outcome of water quality improvement." • Pre-Stormwater Investment Plan: A Platform for Watershed Science and Project Collaboration (ULAR WASC) • SCW Program Metrics & Monitoring Study (MMS) (SCW Program; LINK)
WA Characteristic Data Source(s)	• SCW Program MMS (SCW Program; LINK) • WMMS2 (Public Works) & LACFCD; LINK)
Methods & Considerations	• The SCW Program Goal of improving water quality by zinc load reduction referenced existing known zinc load reduction to achieve benchmarks (lbs/yr) in WMMS2 multiply by the SCW Program % of WMP Implementation Cost

Table H-3 Summary of limiting pollutants

Watershed Area	WMG	Watershed Management Program (WMP) Limiting Pollutant(s)	Pollutants Considered for Initial Watershed Plan Indicators & Targets
CSMB	Ballona Creek	Zinc, Bacteria	Zinc[1], Bacteria
	Marina del Rey	Bacteria, Toxics (Zinc)	
	Santa Monica Bay J2/3	Bacteria	
LLAR	Los Angeles River Upper Reach 2	Bacteria (Los Angeles River), Zinc (Rio Hondo)	Zinc[1], Bacteria
	Lower Los Angeles River	Zinc	
LSGR	Alamitos Bay/Los Cerritos Channel	Zinc	Zinc[1], Bacteria
	Los Cerritos Channel	Zinc, Bacteria	
	Lower San Gabriel River	Zinc	
NSMB	Malibu Creek	Bacteria, Phosphorus	Total Phosphorus[1], Bacteria
	North Santa Monica Bay	Bacteria	
RH	Upper Los Angeles River	Zinc, Bacteria	Zinc[1], Total Phosphorus, Bacteria
	Rio Hondo/San Gabriel River	Zinc	
SCR	Upper Santa Clara River	Bacteria	Bacteria
SSMB	Beach Cities	Bacteria (Santa Monica Bay), Zinc (Dominguez Channel)	Zinc[1], Total Phosphorus, Bacteria
	Dominguez Channel	Zinc, Bacteria	
	Palo Verdes Peninsula	Bacteria, Phosphorus, Copper	
	Santa Monica Bay Jurisdiction 7	Bacteria, PCBs/DDT, Debris & Plastic Pellets	
ULAR	Upper Los Angeles River	Zinc, Bacteria	Zinc[1], Total Phosphorus, Bacteria
USGR	Rio Hondo/San Gabriel River	Zinc	Zinc[1], Total Phosphorus, Bacteria

[1] MMS identified potential representative limiting pollutant for the WA.

$$\textbf{SCW Program \% of WMP Implementation Cost} = \frac{Est.Total\ Tax\ Collection\ 2020-2038}{WMP\ Implementation\ Cost}$$

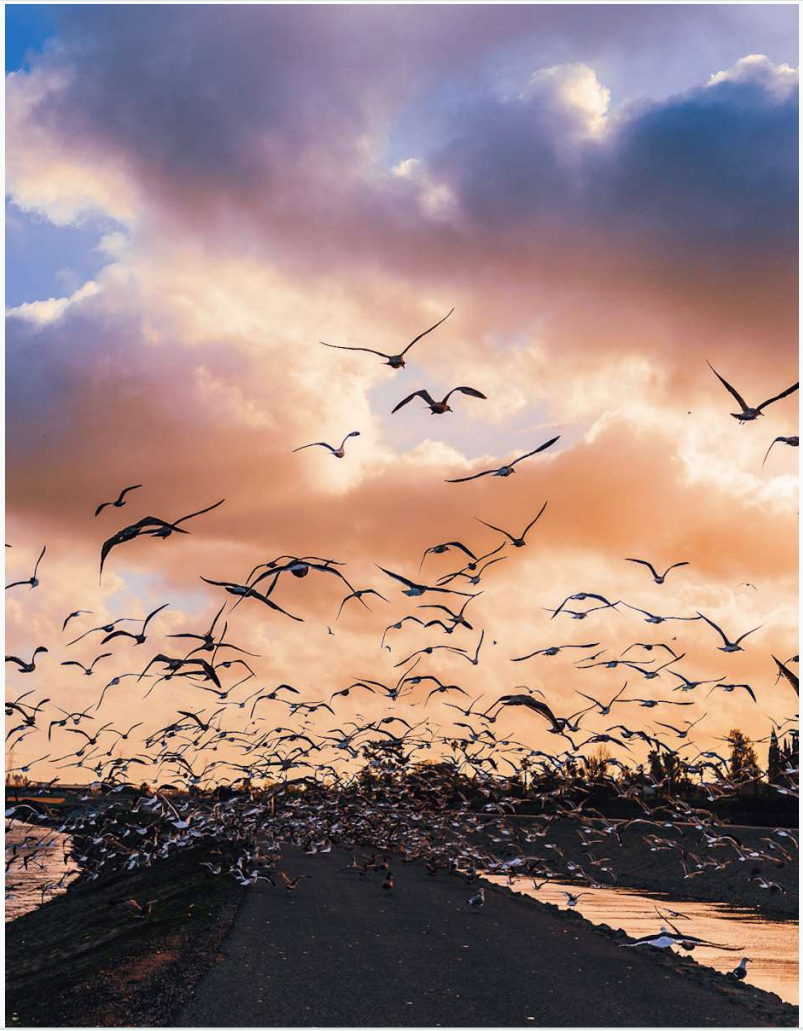
$$\textbf{Target} = (SCW\ Program\ \%\ of\ WMP\ Implementation\ Cost) \times (Load\ Reduction\ to\ Achieve\ Benchmark)$$

*Refer to Appendix H for more details

Improve Water Quality: RH

- Urban runoff from densely developed urban areas, intensive commercial and industrial land uses and channelized drainage networks convey elevated concentrations of pollutants into receiving waters such as the Rio Hondo, Eaton Wash, Los Angeles River and ultimately the Pacific Ocean, contributing to recurring water quality impairments.

- Priority Pollutants:
  Zinc, Total Phosphorus, and Bacteria



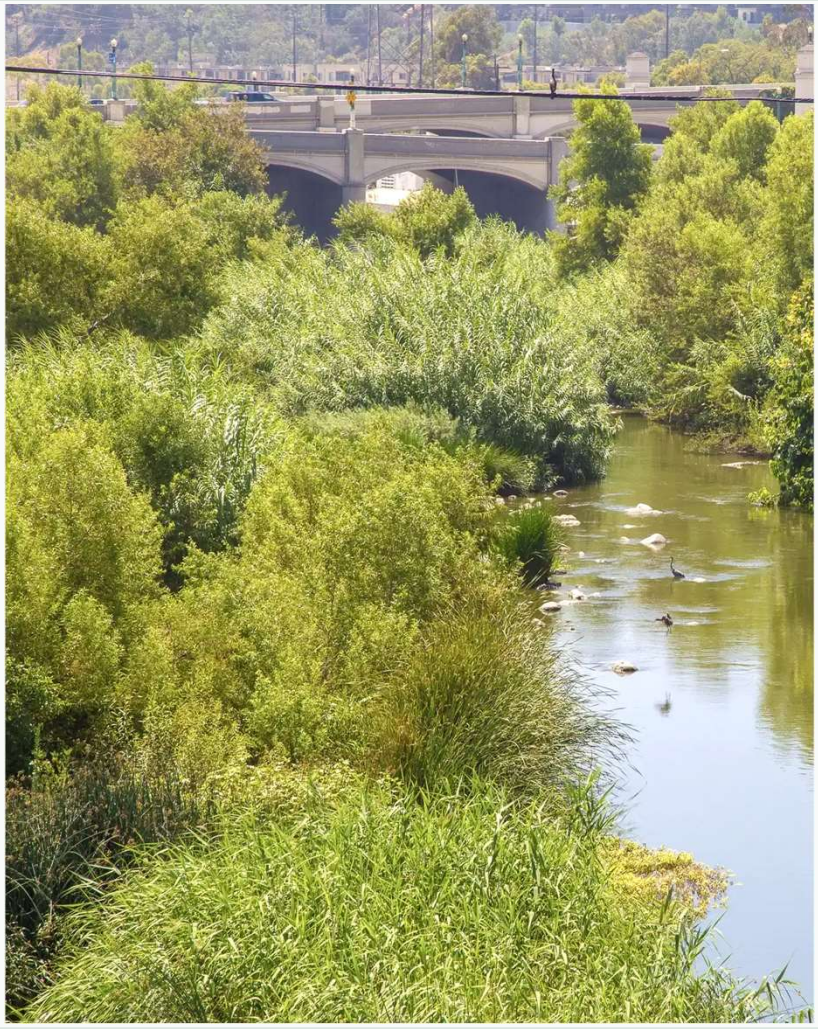
Improve Water Quality: SSMB

- Urban runoff from densely developed inland areas and channelized drainage networks convey elevated concentrations of pollutants into receiving waters contributing to recurring water quality impairments and beach closures.

- Priority Pollutants:
  Zinc, Total Phosphorus, and Bacteria

Improve Water Quality: ULAR

- Large mountains in the northern watershed and dense urbanization that predominates the southern watershed have exacerbated pollutant loadings within the ULAR WA.
- Urban runoff frequently conveys elevated concentrations of pollutants including metals, bacteria, and legacy contaminants into the Los Angeles River and its tributaries.
- Priority Pollutants:
  Zinc, Total Phosphorus, and Bacteria



Improve Water Quality: Baselines & Forecasts

Table H-4 Improve Water Quality Indicator baselines and forecasts

Watershed Area	Improve Water Quality *(Goal A)*			
	Source: WMMS2 model (nesting considered)			
	Zinc Load Reduction (lbs/yr)		Total Phosphorus Load Reduction (lbs/yr)	
	Baseline	2038 Forecast	Baseline	2038 Forecast
RH	623	1,237	961	1,927
SSMB	3,967	15,844	6,427	25,649
ULAR	3,442	5,820	5,485	9,024

[1] Bacteria is not included among the pollutants modeled in the WMMS2 model.

*Refer to Appendix H for more details

Improve Water Quality: Targets - Zinc

$$\textbf{SCW Program \% of WMP Implementation Cost} = \frac{Est.Total\ Tax\ Collection\ 2020-2038}{WMP\ Implementation\ Cost}$$

$$\textbf{Target} = (SCW\ Program\ \%\ of\ WMP\ Implementation\ Cost) \times (Load\ Reduction\ to\ Achieve\ Benchmark)$$

Table H-9 Zinc load reduction WA characteristics and targets

Watershed Area	WA Characteristics				Targets
	Source: WMPs	*Source: SCW Program Tax Collection Reports, MMS*	*C = B / A*	*Source: WMMS2*	E = C x D
	A	B	C	D	E
	WMP Implementation Cost ($)[1]	Est. Total Tax Collection (2020 - 2038)[2] ($)	SCW Program % of WMP Implementation Cost	Zinc Load Reduction to Achieve Benchmark (lbs/yr)	Zinc Load Reduction (lbs/yr)
RH	$1B	$279M	28%	9,775	2,737
SSMB	$1.1B	$426M	38%	23,738	9,020
ULAR	$4.7B	$933M	20%	41,331	8,266

Note: Values shown are unrounded and were derived from the technical analysis described by the methods. Final WA and SCW Program targets were rounded.

[1] WMP implementation costs were factored for inflation out to their target year. These values were not brought to a different base year given that all the referenced WMPs were developed in the last ~5 years. WMP implementation costs are sourced from each respective 2021 WMP implementation plan. Where WA boundaries do not align with WMP boundaries, costs are adjusted using area-weighted allocations.

[2] Using a 2020 base and an inflation rate of 4.35% (source: MMS).

*Refer to Appendix H for more details

Improve Water Quality: Targets - Phosphorus

$$\textbf{SCW Program \% of WMP Implementation Cost} = \frac{Est.Total\ Tax\ Collection\ 2020-2038}{WMP\ Implementation\ Cost}$$

$$\textbf{Target} = (SCW\ Program\ \%\ of\ WMP\ Implementation\ Cost) \times (Load\ Reduction\ to\ Achieve\ Benchmark)$$

Table H-10 Total phosphorus load reduction WA characteristics and targets

Watershed Area	WA Characteristics		Targets
	See Table H-9 above	Source: WMMS2	C = A x B
	A	B	C
	SCW Program % of WMP Implementation Cost (%)	Total Phosphorus Load Reduction to Achieve Benchmark (lbs/yr)	Total Phosphorus Load Reduction (lbs/yr)
RH	28%	21,538	6030.64
SSMB	38%	29,179	11088.02
ULAR	20%	101,640	20328

Note: Values shown are unrounded and were derived from the technical analysis described by the methods. Final WA and SCW Program targets were rounded.

*Refer to Appendix H for more details

Improve Water Quality: Interim Targets

Table H-11. *Improve Water Quality* interim targets

Watershed Area	Improve Water Quality (Goal A) WA Interim Targets					
	Zinc Load Reduction (lbs/yr)			Total Phosphorus Load Reduction (lbs/yr)		
	Baseline	2032	2038	Baseline	2032	2038
RH	600	1,300	2,000	500	7,600	22,000
SSMB	4,000	5,700	17,600	3,300	11,800	29,000
ULAR	3,400	5,000	7,400	2,200	8,100	20,000

1: Bacteria is not included among the pollutants modeled in the WMMS2 model.

*Refer to Appendix H for more details

Improve Water Quality: Needs

Table H-12. WA Needs to *Improve Water Quality* Indicators

Watershed Area	Improve Water Quality *(Goal A)* WA Needs	
	Zinc Load Reduction (lbs/yr)	Total Phosphorus Load Reduction (lbs/yr)
RH	2,200	21,000
SSMB	5,200	22,600
ULAR	4,900	14,500

[1] Bacteria is not included among the pollutants modeled in the WMMS2 model.

*Refer to Appendix H for more details

Improve Water Quality: RH Strategies

Rio Hondo Watershed Area Strategies and Actions

Improve Water Quality

SCW Program Goal A

Watershed Area Needs (by 2038)

- **2,200** Zinc Load Reduction (lb/yr)
- **21,000** Total Phosphorus Load Reduction (lb/yr)
- **200** ac-ft Approx. 24-hr Project Capacity to meet WQ WA Needs

Strategies	Action(s)		Who Should be Involved
1.1 Prioritize high performance Projects and Programs in areas with the highest pollutant loads	**1.1.1** Implement Projects where stormwater runoff is not currently managed by an existing stormwater capture Project or major capture facility by referencing the *Opportunity to Improve Water Quality and Increase Water Supply* composite layer.	NEAR TERM	WASCs, Municipalities, Project & Program proponents
	1.1.2 Prioritize wet-weather Projects for a **total estimated 24-hour Project capacity of approx. 200 ac-ft**, and which are located in areas with the highest average annual load reduction opportunity for zinc and bacteria. Reference the *Opportunity to Improve Water Quality* layer.	NEAR TERM	WASCs, Municipalities, Project proponents
	1.1.3 Invest in research to evaluate and standardize the quantification of bacteria, total DDT, total PCBs, and trash in managed and unmanaged stormwater runoff.	NEAR TERM	Public Works
	1.1.4 Consider the stormwater Project opportunities presented in the SCW Program Scientific Study preSIP dashboard to guide Project implementation; see the *Stormwater Project opportunities in the Upper Los Angeles River Watershed* opportunity for a direct link to the dashboard.	NEAR TERM	WASCs, Municipalities, Project & Program proponents
	1.1.5 Consider the priority catchments for bacteria load reduction presented in the SCW Program Scientific Study *Load Reduction Strategy Adaptation dashboard* to guide the implementation of wet- and dry-weather Projects; see the *Opportunity to reduce bacteria loads by implementing Projects in priority catchments* opportunity for a direct link to the dashboard.	NEAR TERM	WASCs, Municipalities, Project & Program proponents
	1.1.6 Support Municipalities in implementing small-scale and distributed Projects and encourage Municipalities to bundle multiple small Projects into larger funding applications where appropriate to maximize cost-efficiency.	NEAR TERM	Public Works, Municipalities
	1.1.7 Implement a combination of regional Projects with distributed surface capture Projects, such as green streets.	LONG TERM	WASCs, Municipalities
	1.1.8 Address knowledge gaps pertaining to BMP treatment effectiveness and new treatment technologies through Scientific Studies to bolster Project effectiveness.	LONG TERM	Public Works, Scientific Study proponents
	1.1.9 Establish an approach for using regional water quality monitoring data collected through MS4 Programs to assess trends with regards to hydrology and water quality.	NEAR TERM	Public Works
	1.1.10 Select and integrate post-construction monitoring metrics into Project reporting to support consistent evaluation and tracking of Project post-construction performance.	NEAR TERM	Public Works

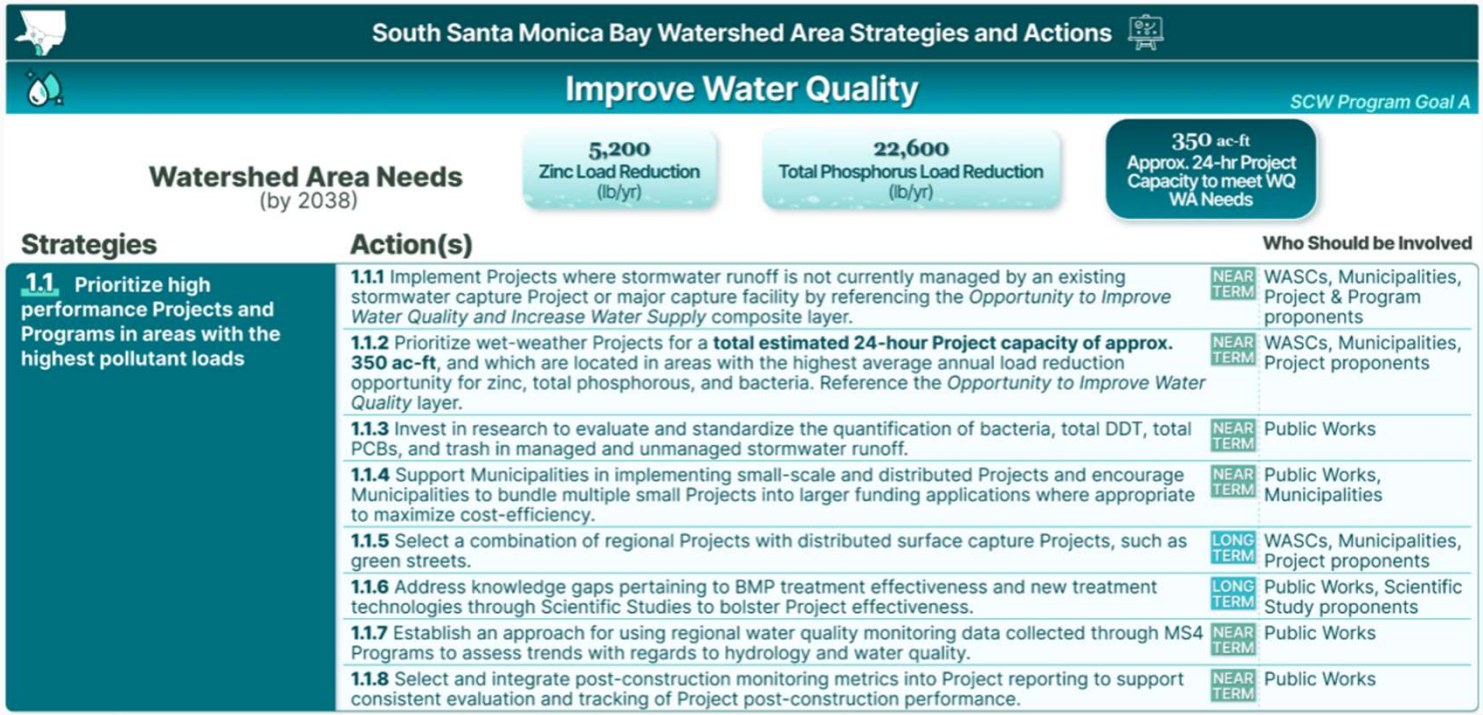
Rio Hondo Watershed Area Strategies and Actions

Improve Water Quality

SCW Program Goal A

Strategies	Action(s)		Who Should be Involved
1.2 Improve water quality and mitigate post-fire runoff through targeted Nature-Based Solutions	**1.2.1** Implement small-scale, distributed nature-based Projects—such as riparian restoration, native vegetation reestablishment, vegetated buffers, and sediment control features—that reduce sediment and pollutant loads, stabilize soils, and support ecological resilience.	NEAR TERM	WASCs, Municipalities, Project & Program proponents
	1.2.2 Stabilize slopes and streambanks in priority runoff areas (including post-fire landscapes) with erosion control measures (e.g., native revegetation, mulch, wattles) to minimize sediment transport and protect downstream water quality.	NEAR TERM	Public Works, Municipalities
	1.2.3 Implement dry-weather, low impact development Projects that capture and treat urban runoff through localized infiltration, reducing pollutants at the source, maintaining year-round soil moisture to support vegetation health, and helping reduce fire risk and post-fire sediment mobilization.	NEAR TERM	WASCs, Municipalities, Project & Program proponents

Improve Water Quality: SSMB Strategies



South Santa Monica Bay Watershed Area Strategies and Actions

Improve Water Quality

SCW Program Goal A

Watershed Area Needs (by 2038)

- **5,200** Zinc Load Reduction (lb/yr)
- **22,600** Total Phosphorus Load Reduction (lb/yr)
- **350** ac-ft Approx. 24-hr Project Capacity to meet WQ WA Needs

Strategies	Action(s)		Who Should be Involved
1.1 Prioritize high performance Projects and Programs in areas with the highest pollutant loads	**1.1.1** Implement Projects where stormwater runoff is not currently managed by an existing stormwater capture Project or major capture facility by referencing the *Opportunity to Improve Water Quality and Increase Water Supply* composite layer.	NEAR TERM	WASCs, Municipalities, Project & Program proponents
	1.1.2 Prioritize wet-weather Projects for a **total estimated 24-hour Project capacity of approx. 350 ac-ft**, and which are located in areas with the highest average annual load reduction opportunity for zinc, total phosphorous, and bacteria. Reference the *Opportunity to Improve Water Quality* layer.	NEAR TERM	WASCs, Municipalities, Project proponents
	1.1.3 Invest in research to evaluate and standardize the quantification of bacteria, total DDT, total PCBs, and trash in managed and unmanaged stormwater runoff.	NEAR TERM	Public Works
	1.1.4 Support Municipalities in implementing small-scale and distributed Projects and encourage Municipalities to bundle multiple small Projects into larger funding applications where appropriate to maximize cost-efficiency.	NEAR TERM	Public Works, Municipalities
	1.1.5 Select a combination of regional Projects with distributed surface capture Projects, such as green streets.	LONG TERM	WASCs, Municipalities, Project proponents
	1.1.6 Address knowledge gaps pertaining to BMP treatment effectiveness and new treatment technologies through Scientific Studies to bolster Project effectiveness.	LONG TERM	Public Works, Scientific Study proponents
	1.1.7 Establish an approach for using regional water quality monitoring data collected through MS4 Programs to assess trends with regards to hydrology and water quality.	NEAR TERM	Public Works
	1.1.8 Select and integrate post-construction monitoring metrics into Project reporting to support consistent evaluation and tracking of Project post-construction performance.	NEAR TERM	Public Works

Improve Water Quality: ULAR Strategies

Upper Los Angeles River Watershed Area Strategies and Actions

Improve Water Quality

SCW Program Goal A

Watershed Area Needs (by 2038)

- **4,900** Zinc Load Reduction (lb/yr)
- **14,500** Total Phosphorus Load Reduction (lb/yr)
- **680 ac-ft** Approx. 24-hr Project Capacity to meet WQ WA Needs

Strategies	Action(s)		Who Should be Involved
1.1 Prioritize high performance Projects and Programs in areas with the highest pollutant loads	**1.1.1** Implement Projects where stormwater runoff is not currently managed by an existing stormwater capture Project or major capture facility by referencing the *Opportunity to Improve Water Quality and Increase Water Supply* composite layer.	NEAR TERM	WASCs, Municipalities, Project & Program proponents
	1.1.2 Prioritize wet-weather Projects for a **total estimated 24-hour Project capacity of approx. 680 ac-ft**, and which are located in areas with the highest average annual load reduction opportunity for zinc, total phosphorus, and bacteria. Reference the *Opportunity to Improve Water Quality* layer.	NEAR TERM	WASCs, Municipalities, Project proponents
	1.1.3 Invest in research to evaluate and standardize the quantification of bacteria, total DDT, total PCBs, and trash in managed and unmanaged stormwater runoff.	NEAR TERM	Public Works
	1.1.4 Consider the stormwater Project opportunities presented in the SCW Program Scientific Study preSIP dashboard to guide Project implementation; see the *Stormwater Project opportunities in the Upper Los Angeles River Watershed* opportunity for a direct link to the dashboard.	NEAR TERM	WASCs, Municipalities, Project & Program proponents
	1.1.5 Consider the priority catchments for bacteria load reduction presented in the SCW Program Scientific Study *Load Reduction Strategy Adaptation dashboard* to guide the implementation of wet- and dry-weather Projects; see the *Opportunity to reduce bacteria loads by implementing Projects in priority catchments* opportunity for a direct link to the dashboard.	NEAR TERM	WASCs, Municipalities, Project & Program proponents
	1.1.6 Support Municipalities in implementing small-scale and distributed Projects and encourage Municipalities to bundle multiple small Projects into larger funding applications where appropriate to maximize cost-efficiency.	NEAR TERM	Public Works, Municipalities
	1.1.7 Select a combination of regional Projects with distributed surface capture Projects, such as green streets.	LONG TERM	WASCs, Municipalities
	1.1.8 Address knowledge gaps pertaining to BMP treatment effectiveness and new treatment technologies through Scientific Studies to bolster Project effectiveness.	LONG TERM	Public Works, Scientific Study proponents
	1.1.9 Establish an approach for using regional water quality monitoring data collected through MS4 Programs to assess trends with regards to hydrology and water quality.	NEAR TERM	Public Works
	1.1.10 Select and integrate post-construction monitoring metrics into Project reporting to support consistent evaluation and tracking of Project post-construction performance.	NEAR TERM	Public Works

Upper Los Angeles River Watershed Area Strategies and Actions

Improve Water Quality

SCW Program Goal A

Strategies	Action(s)		Who Should be Involved
1.2 Improve water quality and mitigate post-fire runoff through targeted Nature-Based Solutions	**1.2.1** Implement small-scale, distributed nature-based Projects—such as riparian restoration, native vegetation reestablishment, vegetated buffers, and sediment control features—that reduce sediment and pollutant loads, stabilize soils, and support ecological resilience.	NEAR TERM	WASCs, Municipalities, Project & Program proponents
	1.2.2 Stabilize slopes and streambanks in priority runoff areas (including post-fire landscapes) with erosion control measures (e.g., native revegetation, mulch, wattles) to minimize sediment transport and protect downstream water quality.	NEAR TERM	Public Works, Municipalities
	1.2.3 Implement dry-weather, low impact development Projects that capture and treat urban runoff through localized infiltration, reducing pollutants at the source, maintaining year-round soil moisture to support vegetation health, and helping reduce fire risk and post-fire sediment mobilization.	NEAR TERM	WASCs, Municipalities, Project & Program proponents

Improve Water Quality: Opportunities

Pollutant Load Reduction Opportunity

Table I-1. Pollutant Load Reduction opportunity data sources and analysis

Data Source(s)	Key Attributes	Opportunity Analysis & Considerations
WMMS2	Pollutant load and runoff volume (10-year continuous modeled timeseries for water year 2014 through 2023)	• Pollutant load and runoff volume outputs from WMMS2 were area-weighted across each subwatershed by dividing the total load and runoff values by the respective subwatershed area, resulting in pollutant yield and runoff yield expressed per unit area (i.e., lbs/acre). • Next, capture areas of funded wet-weather SCW Program Projects were removed from consideration. This was completed to emphasize subwatersheds with high pollutant loads or runoff that do not have a downstream Project. • Lastly, percentile classifications were calculated based on the remaining subwatersheds (see Table I-2).
SCW Program Project capture areas	Project type: Wet-weather	

Table I-2. Classification criteria for Pollutant Load Reduction opportunity

Opportunity	Classification Description
High	75th Percentile to 85th Percentile
Higher	85th Percentile to 95th Percentile
Highest	>95th Percentile

Opportunity to 'Improve Water Quality'

Table I-3. Scoring method example for the Improve Water Quality opportunity for three subwatersheds

A	B	C	D=A+B+C	E=C x 1
Zinc	Bacteria	Total Phosphorus	Total Score	Final Score (Indexed to 9)
3 (Highest)	3 (Highest)	0 (Limited)	6	6
1 (High)	2 (Higher)	0 (Limited)	3	3
0 (Limited)	1 (High)	0 (Limited)	1	1

Table I-4. Classification criteria for Improve Water Quality opportunity

Opportunity	Final Score (Indexed to 9)
High	0 to 3
Higher	>3 to 6
Highest	>6 to 9

*Refer to Appendix I for more details

Improve Water Quality:
RH Opportunities

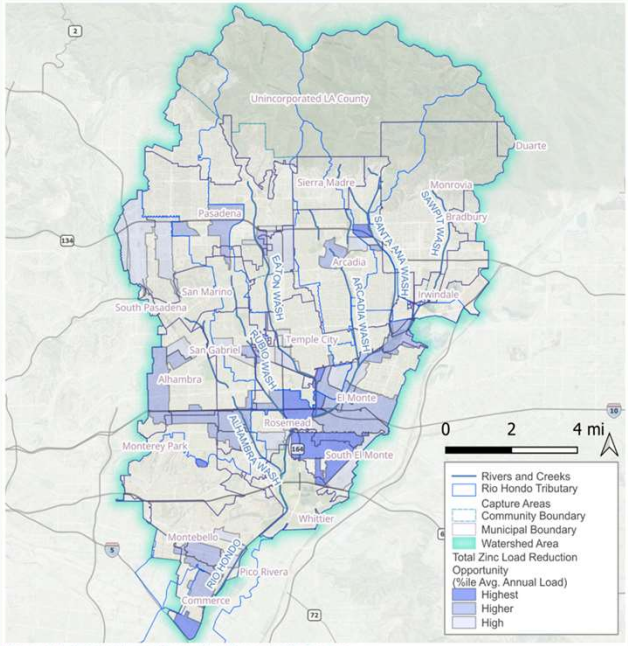


Figure I-2. Pollutant Load Reduction Opportunity for zinc

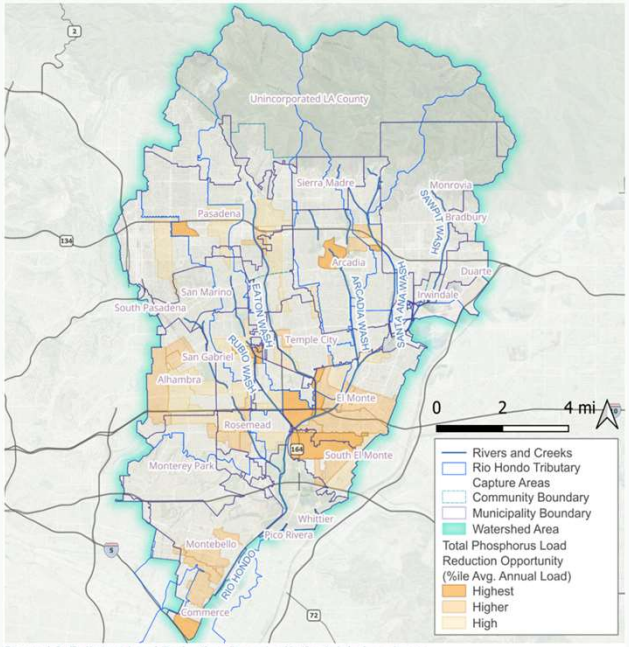


Figure I-3. Pollutant Load Reduction Opportunity for total phosphorus

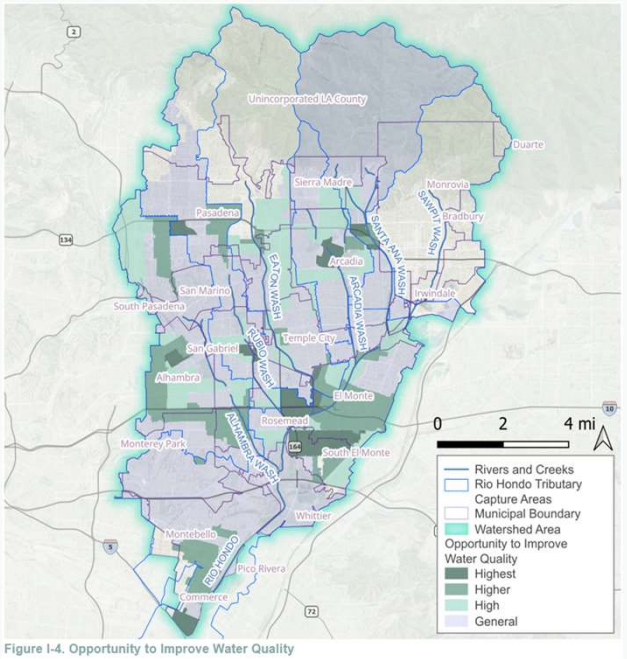


Figure I-4. Opportunity to Improve Water Quality

Improve Water Quality:
SSMB Opportunities

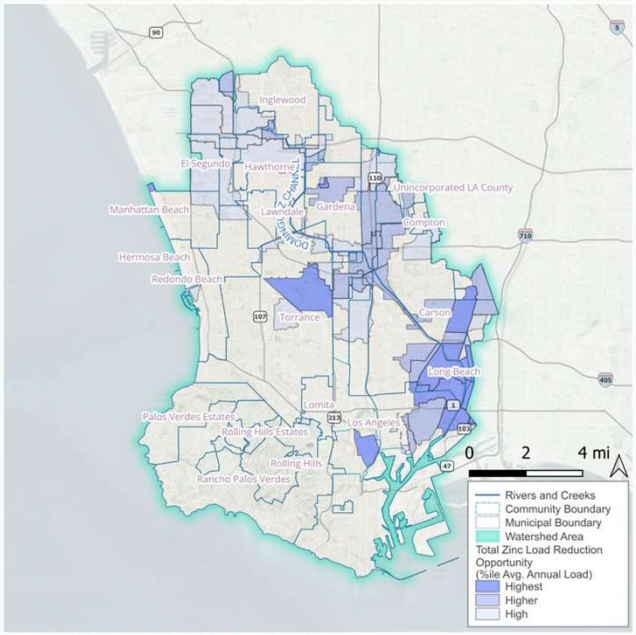


Figure I-2. Pollutant Load Reduction Opportunity for zinc

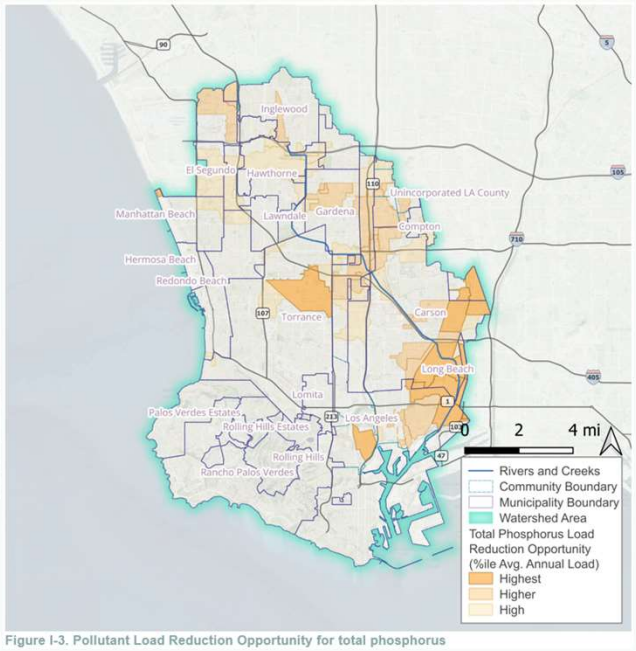


Figure I-3. Pollutant Load Reduction Opportunity for total phosphorus

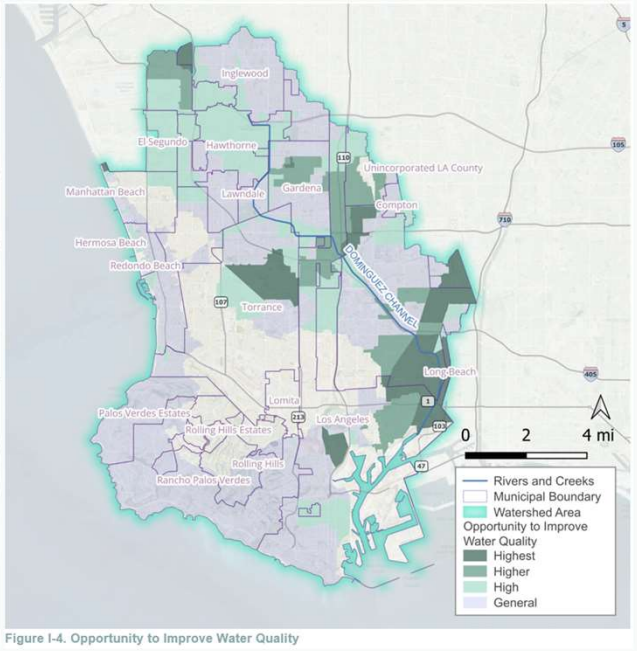


Figure I-4. Opportunity to Improve Water Quality

Improve Water Quality:
ULAR Opportunities

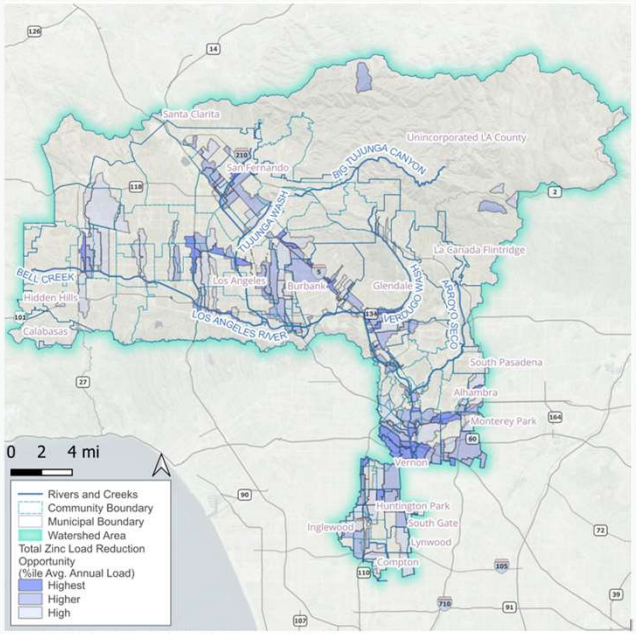


Figure I-2. Pollutant Load Reduction Opportunity for zinc

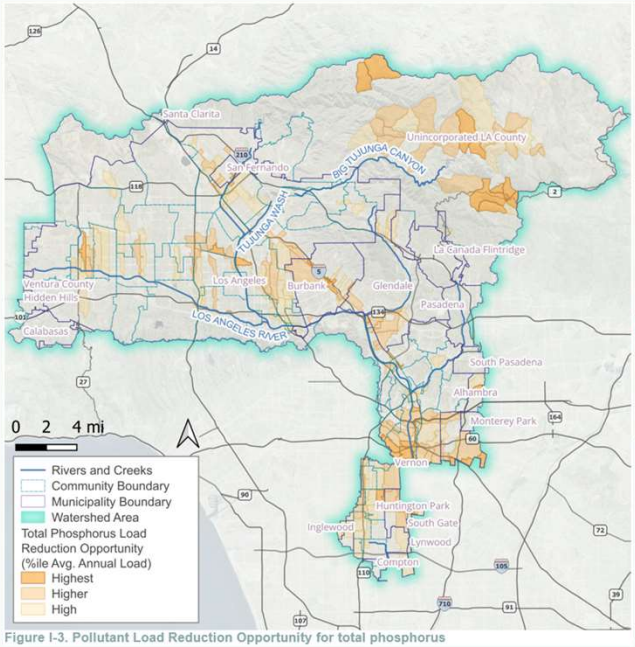


Figure I-3. Pollutant Load Reduction Opportunity for total phosphorus

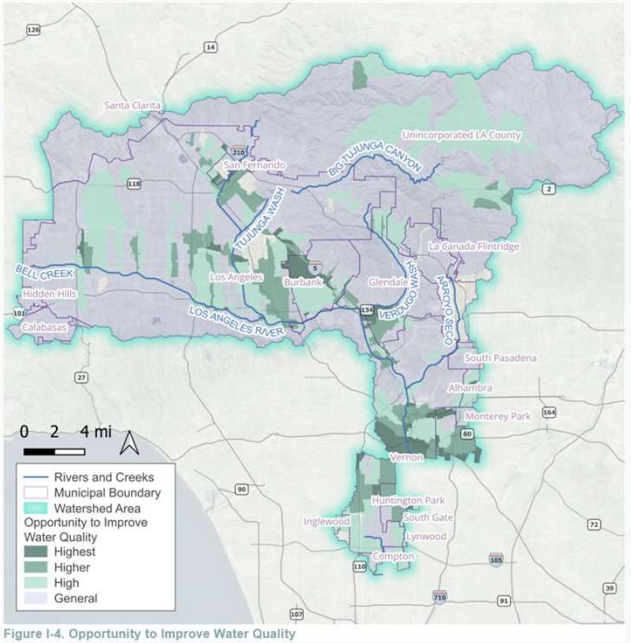


Figure I-4. Opportunity to Improve Water Quality

WATER SUPPLY BENEFITS

Planning Theme: Increase Drought Preparedness (Water Supply)

Increase Drought Preparedness

B SCW Program Goal (18.04.B)
Increase drought preparedness by capturing more Stormwater and/or Urban Runoff to store, clean, reuse, and/or recharge groundwater basins.

What Counts as New Locally Available Water Supply?

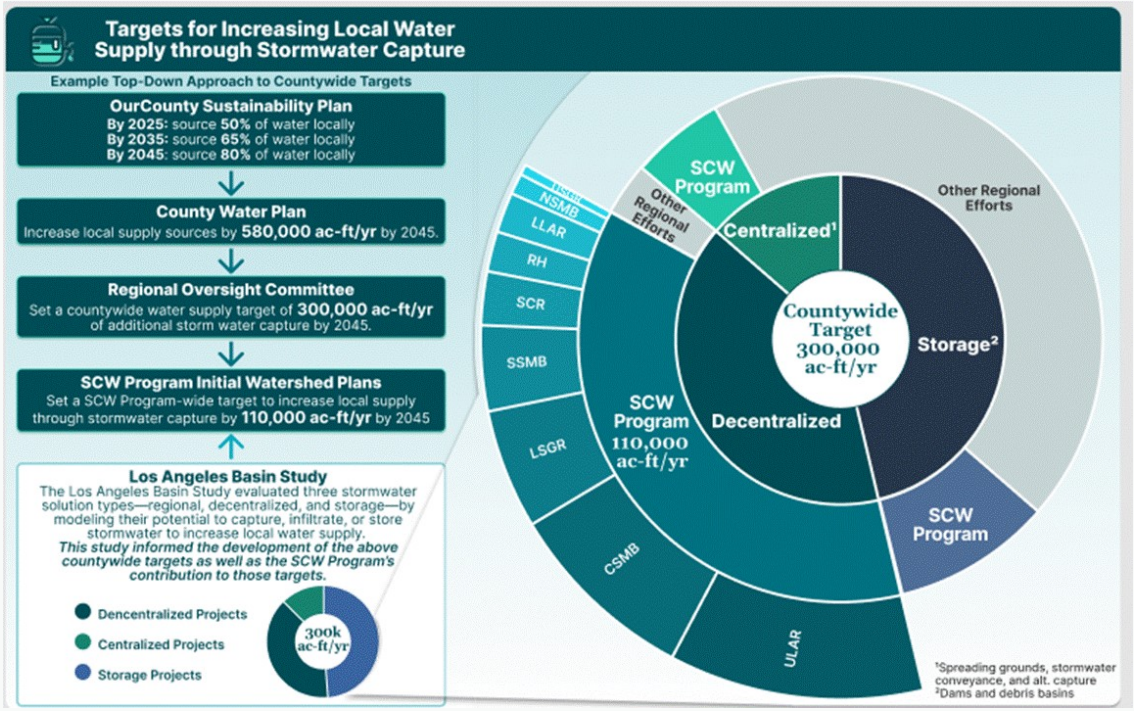
Per the *2025 SCW Program Interim Guidance*, the following fates of captured water **count as new locally available water supply** and a Water Supply Benefit (claims to be confirmed through modeling, geotechnical analysis, and/or engagement):

- **Net water used onsite for potable offset** (not including offset of Project-created water supply demand)
- Diverted to existing treatment/reuse plant
- Diverted to future planned treatment/reuse plant operational within 10 years with concurrence from treatment/reuse plant on timeline and capacity
- Infiltration to managed useable groundwater aquifers
- **Infiltration to unmanaged aquifer** with geotechnical analysis and/or community acknowledgement to confirm infiltration and use
- **Treated and discharged to storm drain or receiving water** when tributary to a downstream water recharge facility if the Project facilitates the recharge of water that would otherwise not be used to augment water supply.

The following **do NOT count towards new locally available water supply** but do provide Water Quality Benefits:

- **Water that would have already been captured downstream** by an existing water recharge facility (see adjustment factors in Watershed Planning Framework that can be used to prorate the *net* new local water supply when captured upstream from existing facilities) and
- Maintenance of existing capture/conservation infrastructure (i.e. sediment removal behind dams).

Environmental water does not count as locally available water supply nor a Water Quality Benefit unless analysis proves that discharging clean water to channels to support ecological functions will offset potable supplies. Environmental water may provide a Water Quality Benefit if site-specific studies demonstrate improvement in flow ecology.



Increase Drought Preparedness: Water Supply Indicators

- Increase Local Supply through Stormwater Capture (ac-ft/yr)
- Increase Local Supply through Groundwater Recharge and Storage (ac-ft/yr)

Table H-18. Increase local supply through stormwater capture (ac-ft/yr) target-setting references and methods

Indicator	Increase Local Supply through Stormwater Capture (ac-ft/yr)

Key Efforts & Countywide Targets Referenced	• Los Angeles County Water Plan (2022) (Public Works; LINK)
	  ○ **Countywide target:** Increase local supply sources by **580,000 ac-ft/yr** by 2045
	• ROC Biennial
	  ○ **Countywide target:** Set a region wide water supply target of **300,000 acre-ft** of additional storm water capture by 2045
	• Los Angeles Basin Study (2014)
	• SCW Program MMS (SCW Program; LINK)
	• GLAC IRWMP (Public Works); LINK)
	• SCR IRWMP (Public Works; LINK)

Table H-15. Increase local supply through groundwater recharge and storage (ac-ft/yr) target-setting references and methods

Indicator	Increase Local Supply through Groundwater Recharge and Storage (ac-ft/yr)

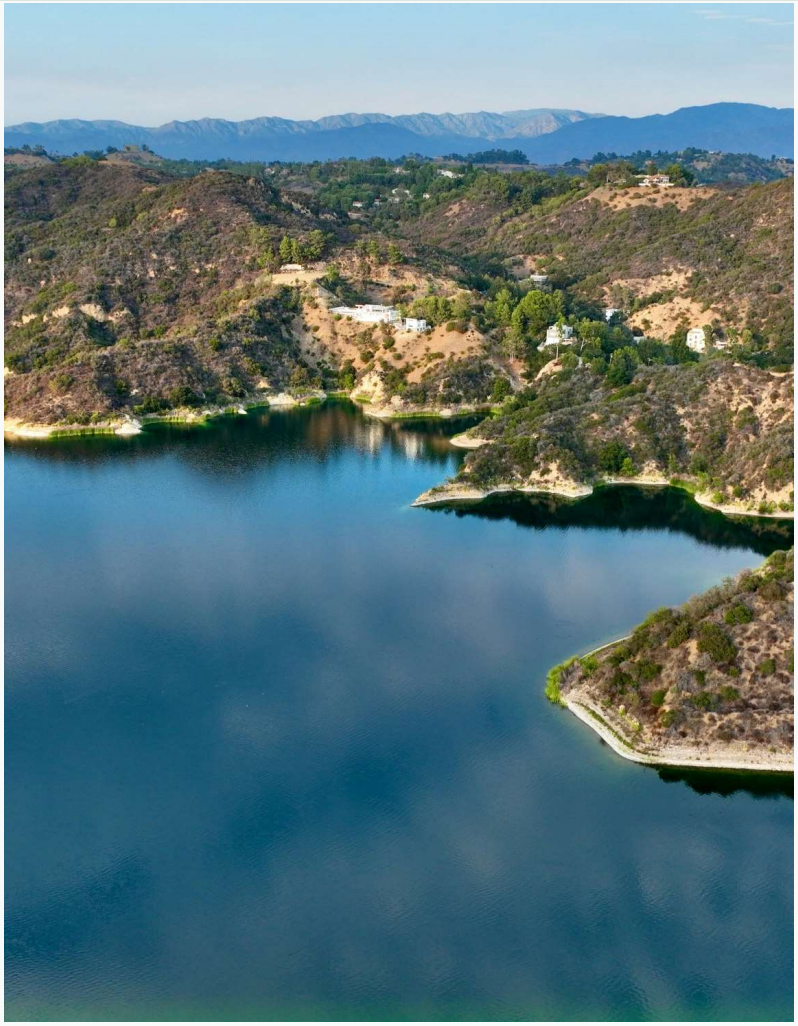
Key Efforts & Countywide Targets Referenced	• Los Angeles County Water Plan (2022) (Public Works; LINK)
	  ○ **Countywide target:** Increase groundwater recharge and storage by increasing decentralized infiltration by **80,000 ac-ft/yr**
	  ○ **Countywide target:** Increase local supply sources by **580,000 ac-ft/yr** by 2045
	• Regional Oversight Committee (ROC) Biennial
	  ○ **Countywide target:** Set a region wide water supply target of **300,000 ac-ft/yr** of additional storm water capture by 2045
	• Los Angeles Basin Study (2014)
	• SCW Program MMS (SCW Program; LINK)
	• Greater Los Angeles County (GLAC) IRWMP (Public Works); LINK)
	• SCR IRWMP (Public Works; LINK)

*Refer to Appendix H for more details

Increase Drought Preparedness: CSMB

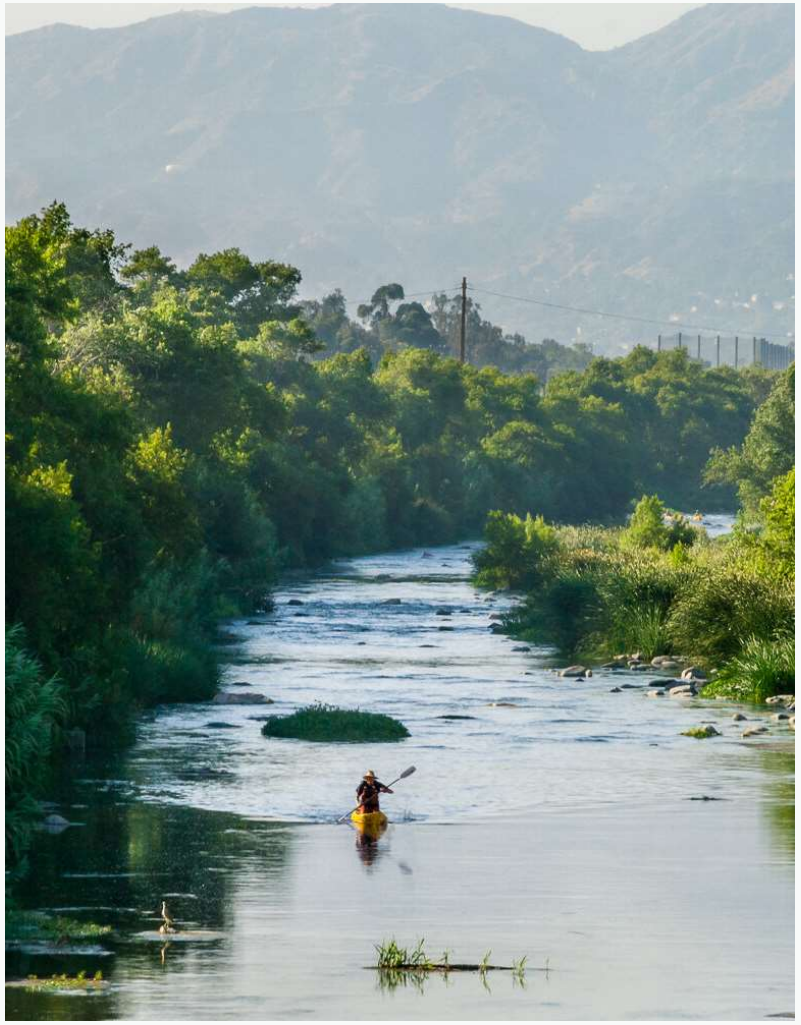
- Densely concentrated impervious landscape (~44%) contribute to a large volume of stormwater runoff, where a significant portion of that volume remains untreated—presenting opportunities for additional stormwater capture and reuse Projects.

- Urbanization has led to dense concentrations of impervious surfaces and compacted soils which reduce infiltration capacity.



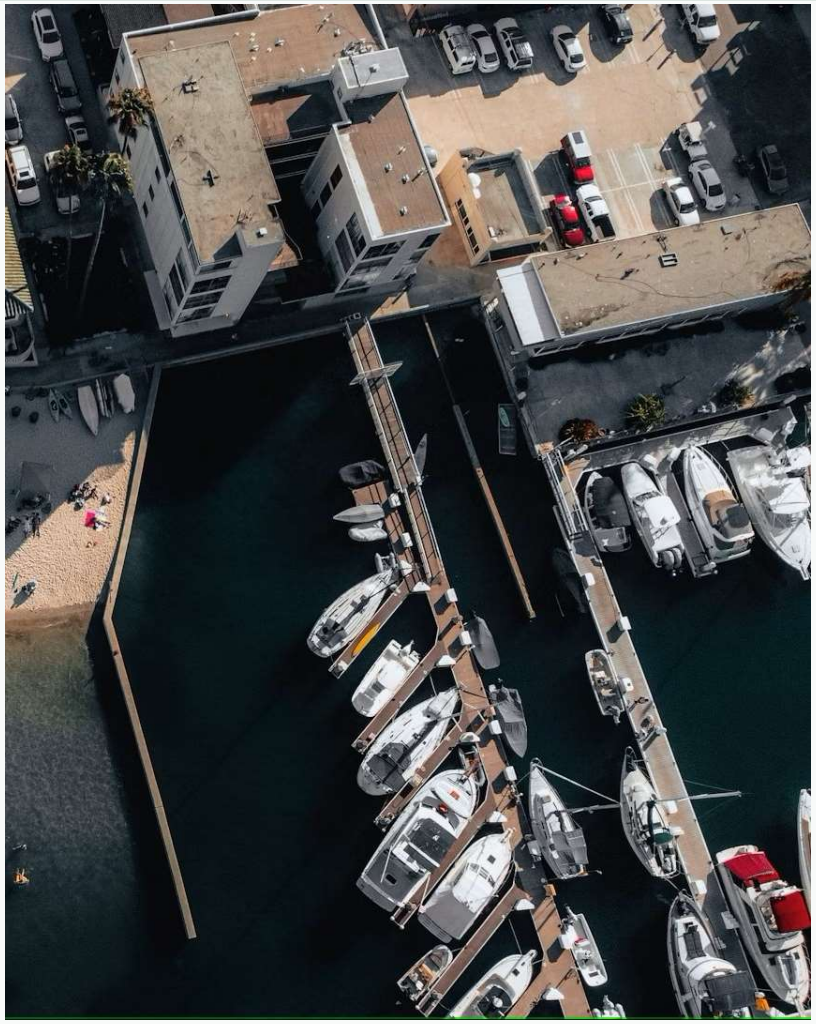
Increase Drought Preparedness: LLAR

- Urban density and extensive impervious surfaces have limited the WA's ability to naturally recharge its groundwater basins, meanwhile groundwater basins are increasingly stressed by over-extraction and water quality concerns.



Increase Drought Preparedness: LSGR

- The LSGR WA is comprised of dense urban and residential areas in the San Gabriel Valley and extensive riparian and woodland habitats in the north, producing varying opportunities for stormwater capture and infiltration to augment local supply.



Increase Drought Preparedness: Baselines & Forecasts

Table H-13 *Increase Drought Preparedness* baselines and forecasts

Watershed Area	Increase Drought Preparedness *(Goal B)*			
	Source: WMMS2 model (nesting considered)			
	Increase Local Supply through Stormwater Capture (ac-ft/yr)		Increase Local Supply through Groundwater Recharge and Storage (ac-ft/yr)	
	Baseline	2045 Forecast	Baseline	2045 Forecast
CSMB	16,769	20,850	672	3,542
LLAR	3,170	5,803	546	2,589
LSGR	5,708	14,671	4,275	13,009

*Refer to Appendix H for more details

Increase Drought Preparedness:
Targets - Increase Water Supply through Stormwater Capture (ac-ft/yr)

$$\text{Increase Local Supply through Stormwater Capture (ac–ft/yr)} =$$

$$\text{(SW Runoff Capture and GW Capture to meet Target)} + \frac{\sum \text{(SW Runoff Capture and GW Capture to meet Target)} \times (Runoff\ Remaining\ to\ Capture\ for\ WS)}{\sum (Runoff\ Remaining\ to\ Capture\ for\ WS)}$$

Table H-19 Average annual stormwater capture WA targets and supporting data

Watershed Area	WA Characteristics		Targets
	Source: MMS, WRAMPS, Opti GLAC IRWM		C=B + ∑ (B) x A / ∑(A)
	A	B	C
	Runoff Remaining to Capture for Water Supply (ac-ft/yr)	Stormwater Runoff Capture and Groundwater Capture to meet target (ac-ft/yr)	Increase Local Supply through Stormwater Capture (ac-ft/yr)
CSMB	41,391	17,030	12393
LLAR	10,089	3,288	2456
LSGR	47,390	6,042	12070

Note: Values shown are unrounded and were derived from the technical analysis described by the methods. Final WA and SCW Program targets were rounded.

***Refer to Appendix H for more details**

Increase Drought Preparedness:
Targets - Increase Water Supply through Groundwater Recharge and Storage (ac-ft/yr)

Weighted Ratio of Average of Aquifer Area and Countable Runoff (%) = $$\frac{(Runoff\ Remaining\ to\ Capture\ for\ WS)(Unconfined\ Aquifer\ Area)}{\sum(Runoff\ Remaining\ to\ Capture\ for\ WS)(Unconfined\ Aquifer\ Area)}$$

Increase Local Supply through Groundwater Recharge

$$= Baseline + (Weighted\ ratio\ of\ Average\ of\ Aquifer\ area\ and\ Countable\ Runoff) \times (\sum(Increase\ Local\ Supply\ through\ Groundwater\ Recharge) - (Baseline))$$

Table H-16. Average annual stormwater capture through groundwater recharge WA targets and supporting data

Watershed Area	WA Characteristics				Targets
	Source: WMMS2	*Source: WMMS2 (LSPC), MMS*	*Source: MMS, WRAMPS, Opti GLAC IRWM*	*D = (C x A) / Σ (C x A)*	*E = F + D x Σ (E - F)*
	A	B	C	D	E
	Unconfined Aquifer Area (acres)	Avg. Annual Uncaptured Stormwater Runoff (ac-ft/yr)	Runoff Remaining to Capture for Water Supply (ac-ft/yr)	Weighted Ratio of Average of Aquifer Area and Countable Runoff (%)	Increase Local Supply through Groundwater Recharge (ac-ft/yr)
CSMB	8,855	42,356	41,391	3%	1,038
LLAR	10,451	27,135	10,089	1%	651
LSGR	12,196	47,687	47,390	4%	4,852

Note: Values shown are unrounded and were derived from the technical analysis described by the methods. Final WA and SCW Program targets were rounded.

*Refer to Appendix H for more details

Increase Drought Preparedness: Interim Targets

Table H-20. *Increase Drought Preparedness* WA interim targets summary

Watershed Area	Increase Drought Preparedness *(Goal B)* WA Interim Targets							
	Increase Local Supply through Stormwater Capture (ac-ft/yr)				Increase Local Supply through Groundwater Recharge and Storage (ac-ft/yr)			
	Baseline	2030	2035	2045	Baseline	2030	2035	2045
CSMB	16,800	18,200	19,870	26,100	670	730	790	1,040
LLAR	3,200	3,550	3,960	5,500	550	570	580	650
LSGR	5,700	7,320	9,260	16,500	4,280	4,370	4,470	4,850

*Refer to Appendix H for more details

Increase Drought Preparedness: Needs

Table H-21. *Increase Drought Preparedness* WA Needs summary

Watershed Area	Increase Drought Preparedness *(Goal B)* WA Needs	
	Increase Local Supply through Stormwater Capture (ac-ft/yr)	Increase Local Supply through Groundwater Recharge and Storage (ac-ft/yr)
CSMB	9,300	370
LLAR	2,300	100
LSGR	10,800	570

*Refer to Appendix H for more details

Increase Drought Preparedness: CSMB Strategies

Central Santa Monica Bay Watershed Area Strategies and Actions

Increase Drought Preparedness

SCW Program Goal B

Watershed Area Needs (by 2045)	9,300 Increase Local Supply through Stormwater Capture (ac-ft/year)	170 ac-ft Approx. 24-hr Capacity for Projects that Increase Local Water Supply	370 Increase Local Supply through Groundwater Recharge and Storage (ac-ft/year)	10 ac-ft Approx. 24-hr Capacity for Groundwater Recharge Projects

Strategies	Action(s)		Who Should be Involved
2.1 Link MS4 compliance, and water supply planning to maximize stormwater capture for water quality and water supply*	**2.1.1** Plan and implement Projects and Programs that link MS4 compliance, groundwater recharge, and water reclamation planning by prioritizing Projects that align with strategies 1.1, 2.2, and 2.3 and by referencing the *Opportunity to Improve Water Quality and Increase Water Supply* composite layer.	NEAR TERM	WASCs, Municipalities, Project proponents
	2.1.2 Ensure Projects are included in a stormwater resource plan or a regional Water Management Plan (see SCW Program Implementation Ordinance 18.07.c.3).	NEAR TERM	WASCs, Municipalities, Project proponents
2.2 Maximize stormwater runoff capture and management for water supply	**2.2.1** Implement Projects that augment water supply where stormwater runoff is not currently managed to a **total estimated 24-hour Project capacity of approx. 170 ac-ft** or more. Reference the *Opportunity to Improve Water Quality and Increase Water Supply* composite layer.	NEAR TERM	WASCs, Municipalities, Project proponents
	2.2.2 Target the highest runoff capture areas with distributed Projects using BMPs such as dry wells, infiltration galleries, diversion to sanitary sewer, and green infrastructure. Reference the *Bacteria Load Reduction Opportunity* layer, which reflects on runoff volume, and the *Opportunity to Improve Water Quality and Increase Water Supply* composite layer.	NEAR TERM	WASCs, Municipalities, Project proponents
2.3 Enhance local water supply through groundwater recharge, diversion to sanitary sewer, and onsite reuse	**2.3.1** Of the total estimated 24-hour Project capacity identified in action 2.2.1, implement Projects that infiltrate to a managed unconfined groundwater basin for a **total estimated 24-hour Project capacity of approx. 10 ac-ft** or more. Utilize high performing BMPs such as infiltration galleries and dry wells. Reference the *Opportunity to Increase Water Supply Through Groundwater Recharge and Storage* layer.	NEAR TERM	WASCs, Municipalities, Project proponents
	2.3.2 Of the total estimated 24-hour Project capacity identified in action 2.2.1, implement Projects that reuse water onsite and/or divert to the Hyperion Water Reclamation Plant or the Santa Monica Urban Runoff Recycling Facility for a **total estimated 24-hour Project capacity of approx. 160 ac-ft** or more.	NEAR TERM	WASCs, Municipalities, Project proponents
	2.3.3 Utilize Scientific Studies to address knowledge gaps related to sewer system capacity for stormwater diversion, and to map potential locations for Project tie-ins.	NEAR TERM	Public Works, WASCs, Scientific Study proponents

Increase Drought Preparedness: LLAR Strategies

Lower Los Angeles River Watershed Area Strategies and Actions

Increase Drought Preparedness

SCW Program Goal B

Watershed Area Needs (by 2045)	2,300 Increase Local Supply through Stormwater Capture (ac-ft/year)	70 ac-ft Approx. 24-hr Capacity for Projects that Increase Local Water Supply	100 Increase Local Supply through Groundwater Recharge and Storage (ac-ft/year)	10 ac-ft Approx. 24-hr Capacity for Groundwater Recharge Projects

Strategies	Action(s)		Who Should be Involved
2.1 Link MS4 compliance and water supply planning to maximize stormwater capture for water quality and water supply*	**2.1.1** Plan and implement Projects and Programs that link MS4 compliance, groundwater recharge, and water reclamation planning by prioritizing Projects that align with strategies 1.1, 2.2, and 2.3 and by referencing the *Opportunity to Improve Water Quality and Increase Water Supply* composite layer.	NEAR TERM	WASCs, Municipalities, Project proponents
	2.1.2 Ensure Projects are included in a stormwater resource plan or a regional Water Management Plan (see SCW Program Implementation Ordinance 18.07.c.3).	NEAR TERM	WASCs, Municipalities, Project proponents
2.2 Maximize stormwater runoff capture and management for water supply	**2.2.1** Implement Projects that augment water supply where stormwater runoff is not currently managed to a **total estimated 24-hour Project capacity of approx. 100 ac-ft** or more. Reference the *Opportunity to Improve Water Quality and Increase Water Supply* composite layer.	NEAR TERM	WASCs, Municipalities, Project proponents
	2.2.2 Target the highest runoff capture areas with distributed Projects using BMPs such as dry wells, infiltration galleries, diversion to sanitary sewer, and green infrastructure, which have exhibited high performance in augmenting water supply in this WA. Reference the *Bacteria Load Reduction Opportunity* layer, which reflects on runoff volume, and the *Opportunity to Improve Water Quality and Increase Water Supply* composite layer.	NEAR TERM	WASCs, Municipalities, Project proponents
2.3 Enhance local water supply through groundwater recharge, diversion to sanitary sewer, and onsite reuse	**2.3.1** Of the total estimated 24-hour Project capacity identified in action 2.2.1, implement Projects that infiltrate to the West Coast Groundwater Basin for a **total estimated 24-hour Project capacity of approx. 10 ac-ft** or more. Utilize high-performing BMPs such as infiltration galleries and dry wells. Reference the *Opportunity to Increase Water Supply Through Groundwater Recharge and Storage* layer.	NEAR TERM	WASCs, Municipalities, Project proponents
	2.3.2 Of the total estimated 24-hour Project capacity identified in action 2.2.1, implement Projects that reuse water onsite and/or divert to the A.K. Warren Water Resource Facility or Long Beach Water Reclamation Plant for a **total estimated 24-hour Project capacity of approx. 60 ac-ft** or more.	NEAR TERM	WASCs, Municipalities, Project proponents
	2.3.3 Utilize Scientific Studies to address knowledge gaps related to sewer system capacity for stormwater diversion, and to map potential locations for Project tie-ins.	NEAR TERM	Public Works, WASCs, Scientific Study proponents
2.4 Enhance local water supply through enhancements to existing LACFCD major capture facilities	**2.4.1** Invest in rehabilitation, expansion, and O&M enhancements for spreading grounds to **yield approx. 1,460 ac-ft** of additional annual water supply per the Los Angeles Basin Study.	NEAR TERM	Public Works

Increase Drought Preparedness: LSGR Strategies

Lower San Gabriel River Watershed Area Strategies and Actions

Increase Drought Preparedness

SCW Program Goal B

Watershed Area Needs (by 2045)	10,800 Increase Local Supply through Stormwater Capture (ac-ft/year)	310 ac-ft Approx. 24-hr Capacity for Projects that Increase Local Water Supply	570 Increase Local Supply through Groundwater Recharge and Storage (ac-ft/year)	40 ac-ft Approx. 24-hr Capacity for Groundwater Recharge Projects

Strategies	Action(s)		Who Should be Involved
2.1 Link MS4 compliance and water supply planning to maximize stormwater capture for water quality and water supply*	**2.1.1** Plan and implement Projects and Programs that link MS4 compliance, groundwater recharge, and water reclamation planning by prioritizing Projects that align with strategies 1.1, 2.2, and 2.3 and by referencing the *Opportunity to Improve Water Quality and Increase Water Supply* composite layer.	NEAR TERM	WASCs, Municipalities, Project proponents
	2.1.2 Ensure Projects are included in a stormwater resource plan or a regional Water Management Plan (see SCW Program Implementation Ordinance 18.07.c.3).	NEAR TERM	WASCs, Municipalities, Project proponents
2.2 Maximize stormwater runoff capture and management for water supply	**2.2.1** Implement Projects that augment water supply where stormwater runoff is not currently managed to a **total estimated 24-hour Project capacity of approx. 330 ac-ft** or more. Reference the *Opportunity to Improve Water Quality and Increase Water Supply* composite layer.	NEAR TERM	WASCs, Municipalities, Project proponents
	2.2.2 Target the highest runoff capture areas with distributed Projects using BMPs such as dry wells, infiltration galleries, diversion to sanitary sewer, and green infrastructure, which have exhibited high performance in augmenting water supply in this WA. Reference the *Bacteria Load Reduction Opportunity* layer, which reflects on runoff volume, and the *Opportunity to Improve Water Quality and Increase Water Supply* composite layer.	NEAR TERM	WASCs, Municipalities, Project proponents
2.3 Enhance local water supply through groundwater recharge, diversion to sanitary sewer, and onsite reuse	**2.3.1** Of the total estimated 24-hour Project capacity identified in action 2.2.1, implement Projects that infiltrate to a managed unconfined groundwater basin for a **total estimated 24-hour Project capacity of approx. 40 ac-ft** or more, utilizing high performing BMPs such as infiltration galleries and dry wells. Reference the *Opportunity to Increase Water Supply Through Groundwater Recharge and Storage* layer.	NEAR TERM	WASCs, Municipalities, Project proponents
	2.3.2 Of the total estimated 24-hour Project capacity identified in action 2.2.1, implement Projects that reuse water onsite and/or divert to the Los Coyotes Water Reclamation Plant, San Jose Creek Water Reclamation Plant, or the Long Beach Water Reclamation Plant for a **total estimated 24-hour Project capacity of approx. 270 ac-ft** or more.	NEAR TERM	WASCs, Municipalities, Project proponents
	2.3.3 Utilize Scientific Studies to address knowledge gaps related to sewer system capacity for stormwater diversion, and to map potential locations for Project tie-ins.	NEAR TERM	Public Works, WASCs, Scientific Study proponents
2.4 Enhance local water supply through enhancements to existing LACFCD major capture facilities	**2.4.1** Invest in rehabilitation, expansion, and O&M enhancements for spreading grounds to **yield approx. 1,460 ac-ft** of additional annual water supply per the Los Angeles Basin Study.	NEAR TERM	Public Works

Increase Drought Preparedness: Opportunities

Increase WS through Stormwater Capture

Table I-5. Opportunity to Increase Water Supply through Stormwater Capture data sources and analysis

Data Source(s)	Key Attributes	Opportunity Analysis & Considerations
SCW Program funded Project capture areas	Project type: Wet-weather or dry-weather, and Wet-weather only	• As described in Section I.1.1, runoff yield was calculated for each subwatershed, accounting for stormwater capture by major capture facilities. • Then, capture areas upstream of major capture facilities with less than 30% Net Countable Supply were removed. Additionally, areas already managed by SCW Program-funded wet-weather capture Projects were removed. • Remaining areas were then evaluated for wet-weather and dry-weather runoff capture opportunity, with existing SCW Program Projects categorized to distinguish between wet-weather or dry-weather and wet-weather only capture potential. Note: low flow diversion areas were included in the wet-weather only opportunity. • Lastly, percentile classifications were calculated based on the remaining subwatersheds (see Table I-6).
Major capture facilities	Dams, reservoirs, spreading grounds, and low flow diversions	
SCW Program Metrics and Monitoring Study Net Countable Supply	Entries meeting the 30% Net Countable Supply threshold ("NET_COUNT" ≥ 0.3)	
WMMS2	Runoff volume (10-year continuous model timeseries, water year 2014 through 2023)	

Table I-6. Classification criteria for Opportunity to Increase Water Supply through Stormwater Capture

Opportunity	Classification Description
High	75th Percentile to 85th Percentile
Higher	85th Percentile to 95th Percentile
Highest	>95th Percentile

Increase WS through GW Recharge and Storage

Table I-7. Opportunity to Increase Water Supply Through Groundwater Recharge and Storage data sources and analysis

Data Source(s)	Key Attributes	Opportunity Analysis & Considerations
Groundwater Basins	Entries with "Unconfined" in the Basin Type field name	• First, groundwater basin data was filtered to only include "unconfined" aquifers. • Next, capture areas upstream of major capture facilities and SCW Program funded wet-weather capture Projects were removed as described in the section above. • The resulting layer was exported and is illustrated in Figure I-5.
SCW Program funded Project capture areas	Project type: Wet-weather or dry-weather	
SCW Program Metrics and Monitoring Study Net Countable Supply	Entries meeting the 30% Net Countable Supply threshold ("NET_COUNT" ≥ 0.3)	
Major capture facilities	Capture areas for dams, reservoirs, spreading grounds, low flow diversions	

*Refer to Appendix I for more details

Increase Drought Preparedness: Opportunities - Increase Water Supply through Stormwater Capture

CSMB Opportunity

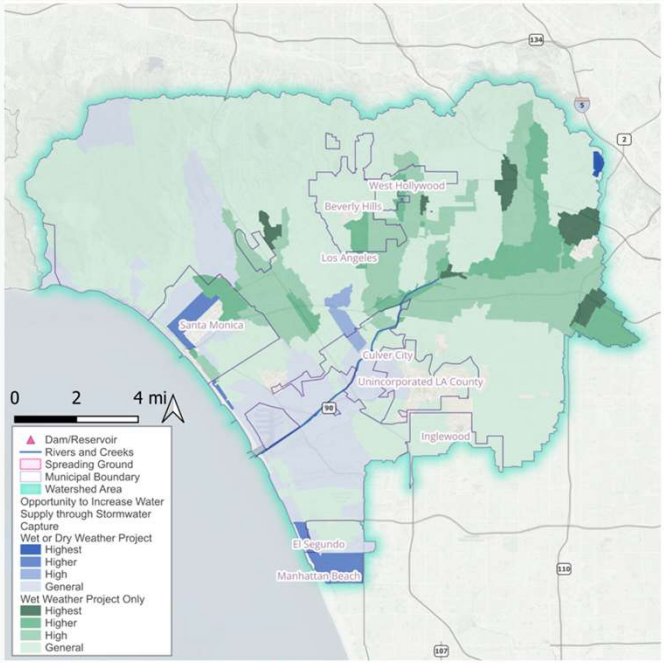


Figure I-4. Opportunity to Increase Water Supply through Stormwater Capture

LLAR Opportunity

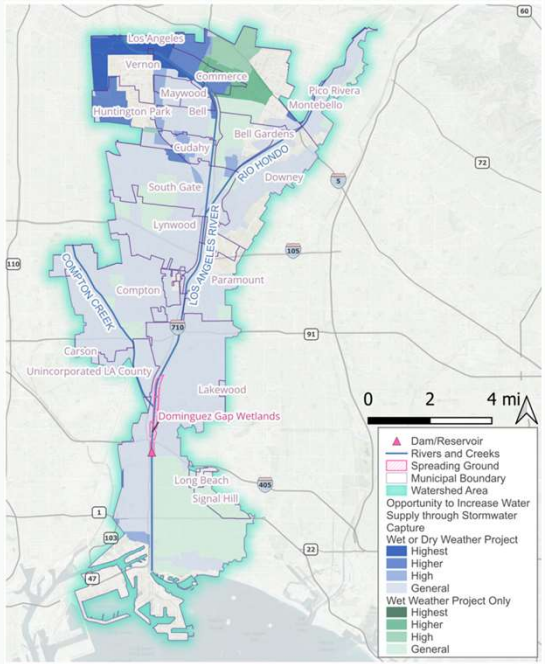


Figure I-4. Opportunity to Increase Water Supply through Stormwater Capture

LSGR Opportunity

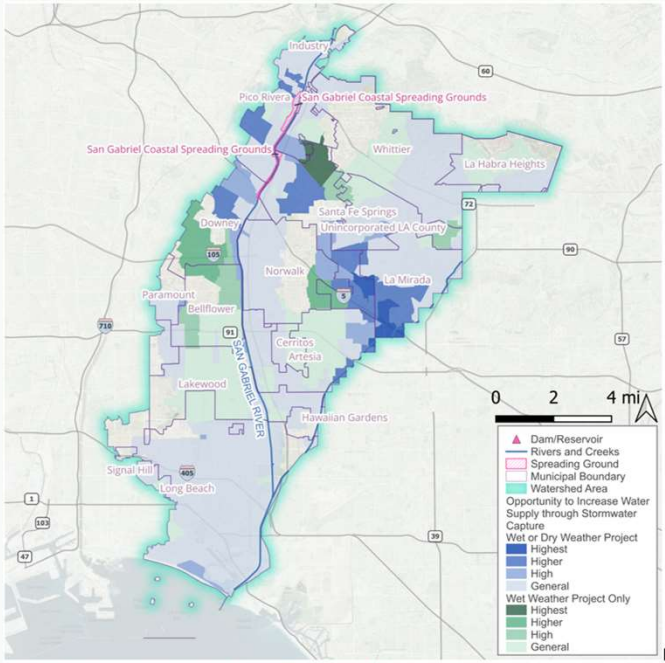


Figure I-4. Opportunity to Increase Water Supply through Stormwater Capture

*Refer to Appendix I for more details

Increase Drought Preparedness: Opportunities - Increase WS through GW Recharge and Storage

CSMB Opportunity

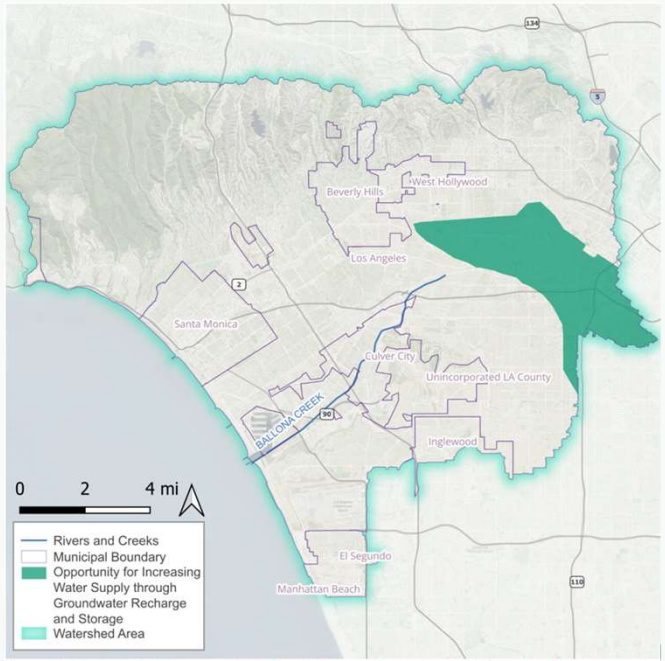


Figure I-5. Opportunity to Increase Water Supply Through Groundwater Recharge and Storage

LLAR Opportunity

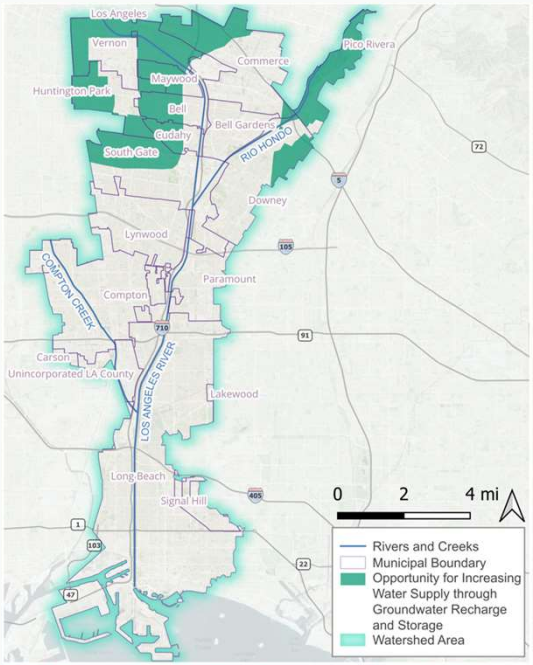


Figure I-5. Opportunity to Increase Water Supply Through Groundwater Recharge and Storage

LSGR Opportunity

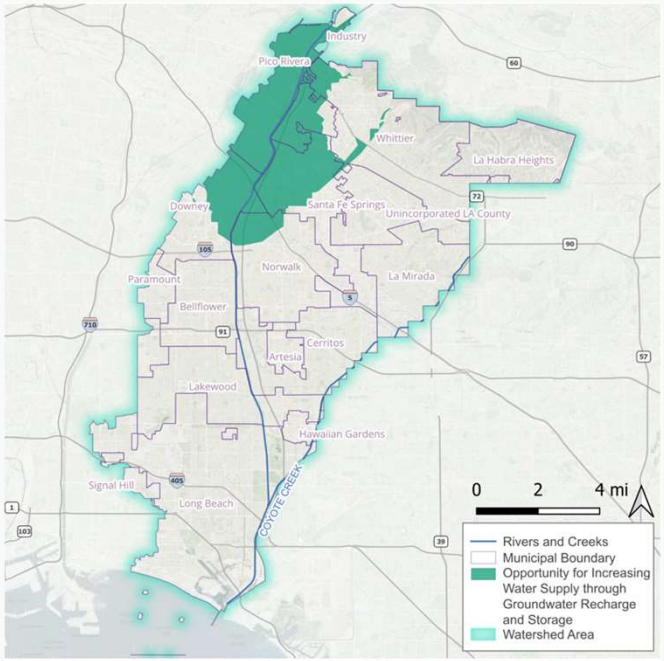


Figure I-5. Opportunity to Increase Water Supply Through Groundwater Recharge and Storage

*Refer to Appendix I for more details

COMMUNITY INVESTMENT BENEFITS

COMMUNITY INVESTMENT

Planning Theme:
Improve Public Health

Improve Public Health
SCW Program Goal (18.04.C) Improve public health by preventing and cleaning up contaminated water, increasing access to open space, providing additional recreational opportunities, and helping communities mitigate and adapt to the effects of climate change through activities such as increasing shade and green space.

Improve Public Health: Indicators

- Net area of park and green space created (acres)
- Net area of park enhanced or restored (acres)
- Net area of green space at schools created (acres)
- Net new area of canopy, cooling, and shading surfaces (acres)

Table H-23 Net area of park and green space created target-setting references and methods

Indicator	Net Area of Park and Green Space Created (acres)

Key Efforts & Countywide Targets Referenced	• LA County's "30x30", formalized through the Parks Needs Assessment, aligns with the broader goal of conserving 30% of lands and coastal waters by 2030
	• LA County General Plan 2035
	  ○ **Countywide target:** Ensure 4 acres of local parks per 1,000 residents in unincorporated areas
	• Parks Needs Assessment (LINK)
	  ○ **Countywide target:** Create 11,850 acres of park space in high and very high need areas

Table H-25 Net area of park and green space enhanced or restored target-setting references and methods

Indicator	Net Area of Park and Green Space Enhanced or Restored (acres)

Key Efforts & Countywide Targets Referenced	• Los Angeles County's "30x30", formalized through the Parks Needs Assessment, aligns with the broader goal of conserving 30% of lands and coastal waters by 2030
	• Los Angeles County General Plan 2035
	  ○ **Countywide target:** Ensure 4 acres of local parks per 1,000 residents in unincorporated areas
	• Parks Needs Assessment (LINK)
	  ○ **Countywide target:** Create 11,850 of park space in high and very high need areas

Table H-27 Net area of green space at schools created target-setting references and methods

Indicator	Net area of green space at schools created (acres)
Key Efforts & Countywide Targets Referenced	• Vision 2045 (Heal the Bay; LINK) • Los Angeles Unified School District (LAUSD) Greening Index 2.0; LINK) • Green Schools Yards for all America (GSA)

Table H-29 Net area of canopy, cooling, and shading surfaces target-setting references and methods

Indicator	Net area of Canopy, Cooling, and Shading Surfaces (acres)

Key Efforts & Countywide Targets Referenced	• Los Angeles County's "30x30", formalized through the 2022 Parks Needs Assessment, aligns with the broader goal of conserving 30% of lands and coastal waters by 2030
	• Los Angeles County General Plan 2035
	  ○ **Countywide target:** Ensure 4 acres of local parks per 1,000 residents in unincorporated areas, the target set by the PNA.
	• Parks Needs Assessment (LINK)
	  ○ **Countywide target:** Create 11,850 acres of park space in high and very high need areas

*Refer to Appendix H for more details

Improve Public Health: USGR

- Extensive impervious surfaces and a significant shortage of high-quality parks, green spaces, and recreational amenities have contributed to multiple environmental and public health challenges.

Improve Public Health: Baselines & Forecasts

Table H-22 *Improve Public Health* Indicator baselines and forecasts

Watershed Area	Improve Public Health *(Goal C)* Indicator Baselines & Forecasts *Source: Reporting Module*							
	Net Area of Park and Green Space Created (acres)		Net Area of Park Enhanced or Restored (acres)		Net Area of Green Space at Schools Created (acres)		Net New Area of Canopy, Cooling, and Shading Surfaces (acres)	
	Baseline	2045 Forecast	Baseline	2045 Forecast[1]	Baseline	2045 Forecast[1]	Baseline	2045 Forecast
USGR	7.6	7.6	19.9	24.3	0.0	0.0	5.7	5.7

[1] Forecasts not developed due to a lack of baseline data.

*Refer to Appendix H for more details

Improve Public Health:
Targets - Net Area of Park and Green Space Created (ac)

Table H-24 Net area of park and green space created WA characteristics and targets

Watershed Area	WA Characteristics			Targets[1]
	Source: PNA		*Source: Calc. using PNA data*	Conditional
	A	B	C	D
	Approx. Park Deficit in Moderate to Very Low Need Areas (acres)	Approx. Park Deficit in Very High Need Areas[1] (acres)	Approx. Park Deficit in High and Very High Need Areas[1] (acres)	Net Area of Park and Green Space Created (acres)
USGR	702	380	454	12

[1] Targets may be revised once additional data for Municipal Program Projects is received through the Reporting Module. Target values will be revisited to context gained from the bottom-up approach. In the meantime, other Project baselines such as BMP footprint may have served as a reference for what is feasible to achieve through the SCW Program. Note: Values shown are unrounded and were derived from the technical analysis described by the methods. Final WA and SCW Program targets were rounded. Conditional target rules for column D: If Approx Park Deficit in Column C is zero, then value in Column D equals 2% of Column A. If 2% column C is greater than 5 times the 2045 forecast, then Column D equals 2% of Column B. Otherwise, Column D is equal to 2% of Column C. "Net Green Space at Schools Created (acres) Target" values are added to column D.

*Refer to Appendix H for more details

Improve Public Health:
Targets - Net Area of Park Enhanced or Restored (ac)

$$Net\ Area\ of\ Park\ Enhanced\ or\ Restored\ (ac) = (Total\ Area\ of\ Local\ and\ Regional\ Parks) \times 30\%$$

Table H-26 Net area of park enhanced or restored WA characteristics and targets

Watershed Area	WA Characteristics (Source: PNA)		Targets[1] (C = B x 30%)
	A	B	C
	Total area of Local and Regional Parks in Moderate to Low need areas in Poor or Fair Condition (acres)	Total area of Local and Regional Parks in High and Very High need areas in Poor or Fair Condition (acres)	Net Area of Park Enhanced or Restored (acres)
USGR	275	69	21

Note: Values shown are unrounded and were derived from the technical analysis described by the methods. Final WA and SCW Program targets were rounded.
1. If Column B = 0 then Column C equals 30% of Column A

*Refer to Appendix H for more details

Improve Public Health:
Targets - Net Area of Green Space at Schools Created (ac)

$$Net\ Area\ of\ Green\ Space\ at\ Schools\ Created\ (ac) = (Schoolyard\ Area) \times 1\%$$

Table H-28 Net green space at schools created WA characteristics and targets

Watershed Area	WA Characteristics		Targets
	Source: PNA		C = B x 1%
	A	B	C
	Total Area of K-12 Public School Parcels (acres)	Schoolyard Area at K-12 Public Schools (Impervious Area, excluding roofs & parking lots) (acres)	Net Green Space at Schools Created (acres)
USGR	3,899	924	9

Note: Values shown are unrounded and were derived from the technical analysis described by the methods. Final WA and SCW Program targets were rounded

[1] Forecasts not developed due to lack of baseline data.

*Refer to Appendix H for more details

Improve Public Health:
Targets - Net Area of Canopy, Cooling, and Shading Surfaces (ac)

$$Net\ Area\ of\ Canopy, Cooling, and\ Shading\ Surfaces(ac) = Net\ Area\ of\ Park\ and\ Green\ Space + Net\ New\ Area\ of\ Canopy$$

Table H-30 Net new area of canopy, cooling, and shading surfaces WA characteristics and targets

Watershed Area	WA Characteristics		Targets[1]
	Targets	*Calculated*	C = A + B
	A	B	C
	Net Area of Park and Green Space Created (acres)	Net New Area of Canopy (acres)	Net New Area of Canopy, Cooling, and Shading Surfaces (acres)
USGR	12	203	215

Note: Values shown are unrounded and were derived from the technical analysis described by the methods. Final WA and SCW Program targets were rounded.

[1]Overlaps may occur across targets, as certain benefits can contribute to more than one target. In this case, the "net area of park and green space created" Indicator is used to support the estimation of targets for the "net new area of canopy, cooling, and shading surface" Indicator, because parks and green spaces are also considered to be canopy, cooling, and shading surfaces.

*Refer to Appendix H for more details

Improve Public Health: Interim Targets

Table H-31. Interim targets for Indicators under the *Improve Public Health* Planning Theme

Watershed Area	Improve Public Health (Goal C) Interim Targets															
	Net Area of Park Enhanced or Restored (acres)				Net Area of Park and Green Space Created (acres)				Net Area of Green Space at Schools Created (acres)				Net New Area of Canopy, Cooling, and Shading Surfaces (acres)			
	Baseline	2030	2035	2045	Baseline	2030	2035	2045	Baseline	2030	2035	2045	Baseline	2030	2035	2045
USGR	20	20	20	21	8	10	10	10	-	-	1	3	6	40	70	210

*Refer to Appendix H for more details

Improve Public Health: Needs

Table H-32. WA Needs for Indicators under the *Improve Public Health* Planning Theme

Watershed Area	Improve Public Health *(Goal C)* WA Needs			
	Net Area of Park Enhanced or Restored (acres)	Net Area of Park and Green Space Created (acres)	Net Area of Green Space at Schools Created (acres)	Net New Area of Canopy, Cooling, and Shading Surfaces (acres)
USGR	1	2	3	284

*Refer to Appendix H for more details

Improve Public Health: USGR Strategies

Upper San Gabriel River Watershed Area Strategies and Actions

Improve Public Health

SCW Program Goal C

Watershed Area Needs (by 2045)

2	3	1	204
Net Area of Park and Green Space Created (acres)	Net Area of Green Space at Schools Created (acres)	Net Area of Park Enhanced or Restored (acres)	Net New Area of Canopy, Cooling, and Shading Surfaces (acres)

Strategies	Action(s)		Who Should be Involved
3.1 Evaluate open space and large lot potential, particularly on school campuses*	**3.1.1** Address spatial data gaps related to park land opportunities identified through the Parks Needs Assessment (see Chapter 7 for details).	NEAR TERM	Public Works
	3.1.2 Invest in research such as a Scientific Study that evaluates open space and large lot potential for SCW Program Project implementation.	LONG TERM	Public Works, Scientific Study proponents
3.2 Integrate transportation-related planning and implementation efforts with green street development**	**3.2.1** Leverage Project opportunities and recommendations identified by the *San Gabriel Valley Greenway Network Strategic Implementation Plan* to implement multi-benefit Projects that integrate transportation, recreation, habitat, and stormwater management. *Note that recommendations from this plan are integrated into strategies and actions where feasible.*	NEAR TERM	WASCs, Municipalities, Project proponents
3.3 Implement Projects located at school and in flood control channel right of ways**	**3.3.1** Prioritize multi-benefit Projects that create green space at schools, aiming to convert at least 30% of schoolyard area to green space. Reference the *Opportunity for Creating Green Space at Schools* to guide Project implementation.	NEAR TERM	WASCs, Municipalities, Project proponents
	3.3.2 In alignment with the *San Gabriel Valley Greenway Network Strategic Implementation Plan*, implement greenway Projects that utilize flood control right of ways to create parks and green spaces.	NEAR TERM	Public Work, LACFCD, WASCs, Municipalities, Project proponents
3.4 Create, enhance, and restore park and green space, especially in high-need communities	**3.4.1** Prioritize multi-benefit Projects that enhance and/or restore existing local and regional parks in Parks Needs Assessment priority areas, using the *Opportunity for Park Enhancement or Restoration* layer to guide implementation.	NEAR TERM	WASCs, Municipalities, Project proponents
	3.4.2 Prioritize multi-benefit Projects that create parks and green spaces—such as pocket parks, linear parks, and greenways with stormwater features—in Parks Needs Assessment priority areas, using the *Opportunity for Park and Green Space Creation* layer to guide implementation.	NEAR TERM	WASCs, Municipalities, Project proponents
	3.4.3 Invest in safe, walkable green streets, walking and biking paths that enhance mobility, connectivity, community cohesion, and improve stormwater management, especially near parks, schools, and other community hubs.	NEAR TERM	WASCs, Municipalities, Project proponents
	3.4.4 Improve access to existing open spaces—such as spreading grounds along urban rivers—to expand the benefits of parks and green spaces, bringing them closer to communities and increasing equitable access.	NEAR TERM	Public Works, Municipalities

Upper San Gabriel River Watershed Area Strategies and Actions

Improve Public Health

SCW Program Goal C

Strategies	Action(s)		Who Should be Involved
3.5 Help communities most affected by extreme heat mitigate and adapt to the effects of climate change	**3.5.1** Utilize green infrastructure that reduces hardscape and optimizes Project footprints to maximize tree canopy, urban cooling, and shaded surfaces, thereby enhancing climate resilience. Project types may include green streets, tree wells, and other surface-based stormwater capture features, such as vegetated areas designed with integrated water storage capacity.	NEAR TERM	WASCs, Municipalities, Project proponents
	3.5.2 Implement multi-benefit Projects that prioritize expanding tree canopy, enhancing urban cooling, and increasing shaded surfaces in communities most vulnerable to climate change by referencing the *Multiple Benefit Opportunity Across Planning Themes* layer.	NEAR TERM	WASCs, Municipalities, Project proponents
	3.5.3 Select tree species based on drought tolerance, community preferences, shade provision capacity, and contributions to local biodiversity. Prioritize the planting, establishment, and maintenance of trees according to industry best management practices, as outlined in the *Recommended Tree Species for Los Angeles County and Best Management Practices for Tree Care* guidelines.	NEAR TERM	WASCs, Municipalities, Project proponents

Improve Public Health: Opportunities

Opportunity for Park and Green Space Creation

Table I-8. Park and Green Space Creation opportunity data sources and analysis

Data Source(s)	Key Attributes	Opportunity Analysis & Considerations
Parks Needs Assessment	Entries with "High" or "Very High" in the NEED_DESC field name and entries meeting the 3.3 ac threshold ("AC_PER_1K" ≥ 3.3)	• First, entries with High and Very High Park Needs[1] and less than 3.3 acre per 1,000 people were selected. • Resulting areas were clipped to urban areas to focus the analysis on locations with the greatest potential for new park development within more densely populated regions. • Lastly, subwatersheds were categorized into high or higher based on their LARMP Access Need values (see Table I-9).
LARMP Access Need	Entries above and below the 2.825 Access Need threshold	
Urban Areas	Extent of the urban area	

[1] In some WAs there were no high or very high entries. In those instances, this step was skipped.

Table I-9. Classification criteria for Park and Green Space Creation opportunity

Opportunity	Park Needs Assessment Population per Area	Park Needs Assessment Results	LARMP Access Need
High	Less than 3.3 acre per 1,000 people	High, Very High	<2.825
Higher			>2.825

Opportunity for Park Enhancement or Restoration

Table I-10. Park Enhancement or Restoration opportunity data sources and analysis

Data Source(s)	Key Attributes	Opportunity Analysis & Considerations
LA County local parks, regional parks, open space, natural areas	Entries with "Open Access" in the ACCESS_TYP field name	• First, entries with open access were filtered to ensure selected area do not overlap with non-open access parks. • Resulting parks were then filtered to those with a High or Very High need as determined by the Park Needs Assessment [1]. • Resulting areas were clipped to urban areas to focus the analysis on locations with the greatest potential for new park development within more densely populated regions. • Lastly, opportunities were categorized into high, higher, or highest based on their park condition and LARMP Access Need and park condition (see Table I-11).
Parks Needs Assessment	Entries with " High" or "Very High" in the NEED_DESCP field name	
LA County local parks, regional parks, open space, natural areas	Entries with "Poor" or "Fair" in the PRKINF_CND field name	
LARMP Access Need	Access Need	
Urban Areas	Extent of the urban area	

[1] In some WAs there were no high or very high entries. In those instances, this step was skipped.

Table I-11. Classification criteria for Park Enhancement or Restoration opportunity

Opportunity	Park Condition	Park Needs Assessment Results[1]	LARMP Access Need
High	Fair	High, Very High	<2.825
Higher	Fair		>2.825
Highest	Poor		>2.825

[1] In some WAs there were no high or very high entries. In those instances, this step was skipped.

*Refer to Appendix I for more details

Improve Public Health: Opportunities

Opportunity for Creating Green Space at Schools

Table I-12. Creating Green Spaces at Schools' opportunity data sources and analysis

Data Source(s)	Key Attributes	Opportunity Analysis & Considerations
Los Angeles County Schools (direct from Public Works)	K-12 only	• First, school parcels were filtered to include only those serving K–12. • Resulting parcels were then spatially joined to the CES and Extreme Heat Temperature database to determine a score for each. • Lastly, opportunities were categorized into high, higher, or highest based on percentile of composite score (see Table I-13).
CalEnviroScreen 4	CES 4.0 Score	
CalAdapt Extreme Heat	Mid-century RCP 8.5 Number of Extreme Heat Days per Year	

Table I-13. Classification criteria for Creating Green Space at Schools' opportunity

Opportunity	Classification Description
High	<50th percentile
Higher	50th to 75th percentile
Highest	>75th percentile

Opportunity for Creating Canopy, Cooling, and Shading Surfaces

Table I-14. Classification criteria for Creating Canopy, Cooling, and Shading Surfaces opportunity

Urban Tree Canopy Cover	Low SSI	Medium SSI	High SSI
Low (<10%)	Higher	Higher	Highest
Medium (10% to 15%)	High	Higher	Highest
High (>15%)	High	High	High

Table I-15. Creating Canopy, Cooling, and Shading Surfaces opportunity data sources and analysis

Data Source(s)	Key Attributes	Opportunity Analysis & Considerations
Countywide Statistical Area (CSA)	Entries with "COMMUNITY"	• First, CSAs were used to define the geographic boundaries for evaluating tree-canopy opportunity. • Remaining area was then clipped to urban areas to focus on locations in more densely populated regions. • Within these areas, the percentage of existing urban canopy cover was calculated for each CSA. Each CSA was then spatially joined with the SSI categories. • Lastly, opportunities were categorized into low, medium, or high based on percentile of composite score using the classification matrix adapted from the CFMP and combining canopy cover and SSI categories (see Table I-14).
Urban Canopy	Urban Canopy Area	
Social Sensitivity Index (SSI)	Entries with "Low", "Med", or "High" in the SoVI_Third field name	
Urban Areas	Extent of the urban area	

*Refer to Appendix I for more details

Improve Public Health:
USGR Opportunities – Park and Green Space Creation

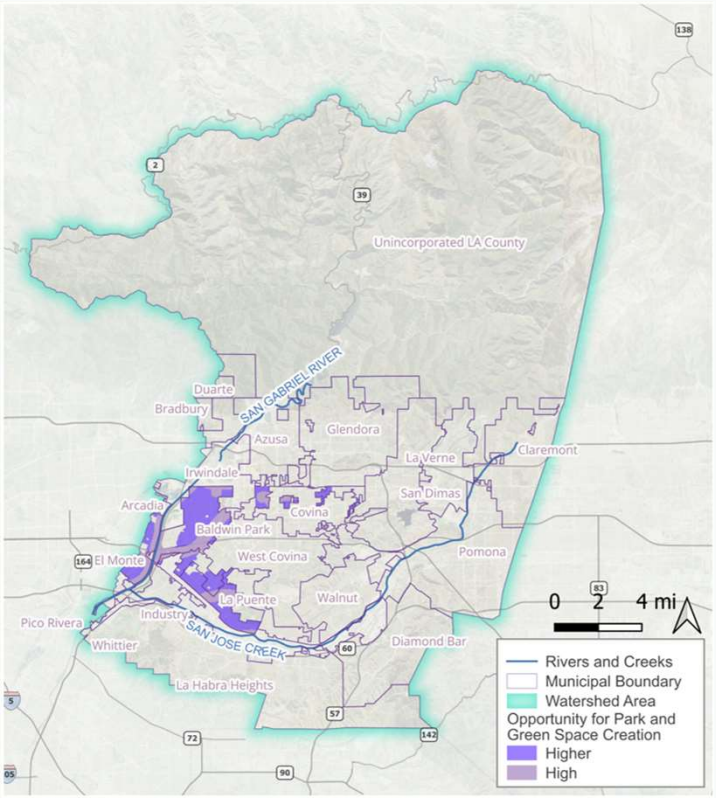


Figure I-7. Opportunity for Park and Green Space Creation

*Refer to Appendix I for more details

Improve Public Health:
USGR Opportunities – Park Enhancement or Restoration

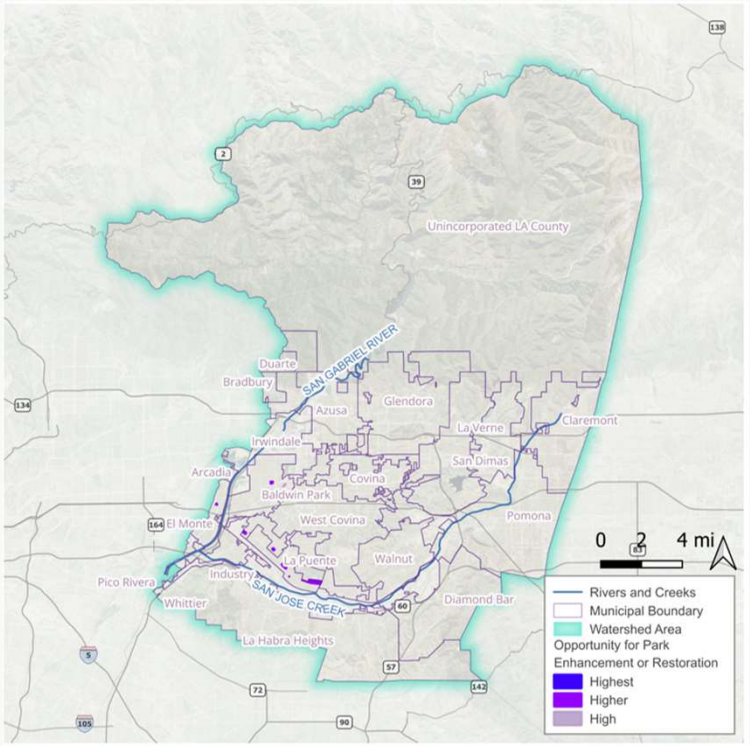


Figure I-8. Opportunity for Park Enhancement or Restoration

*Refer to Appendix I for more details

Improve Public Health:
USGR Opportunities – Creating Green Space at Schools

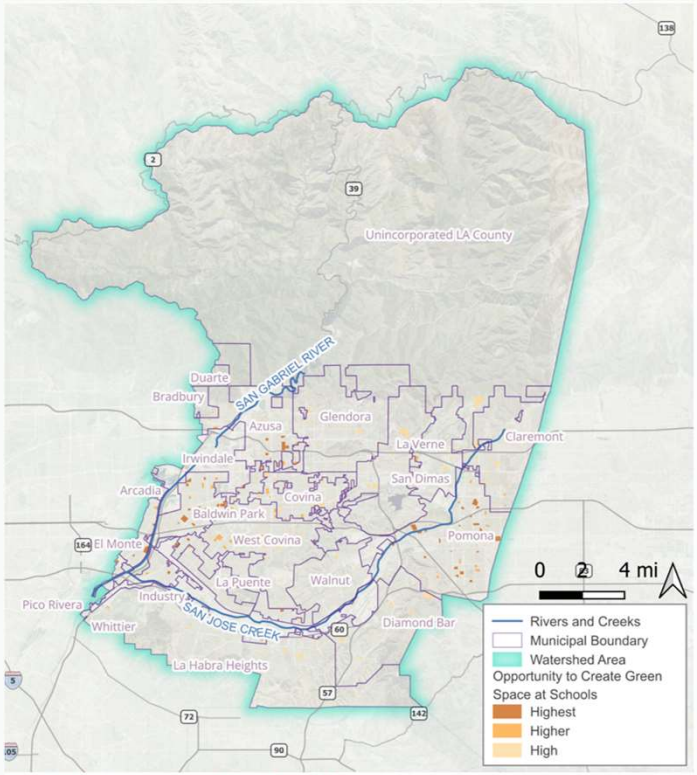


Figure I-9. Opportunity to Create Green Space at Schools

*Refer to Appendix I for more details

Improve Public Health:
USGR Opportunities – Create Canopy, Cooling, and Shading Surfaces

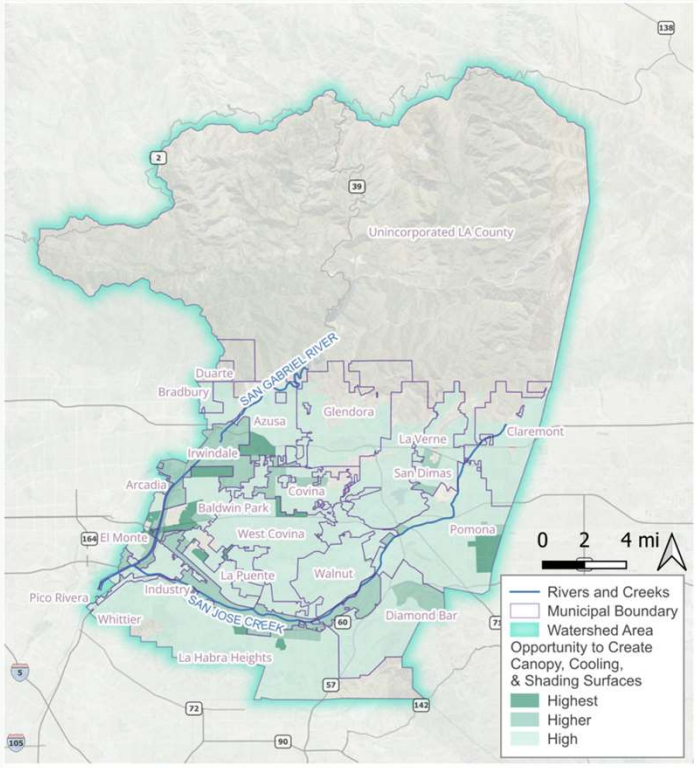


Figure I-10. Opportunity to Create Canopy, Cooling, and Shading Surfaces

*Refer to Appendix I for more details

COMMUNITY INVESTMENT

Planning Theme:
Equitably Distribute Benefits

Equitably Distribute Benefits
J **SCW Program Goal (18.04.J)** Provide DAC Benefits, including Regional Program infrastructure investments, that are not less than one hundred and ten percent (110%) of the ratio of the DAC population to the total population in each Watershed Area.
K **SCW Program Goal (18.04.K)** Provide Regional Program infrastructure funds benefitting each Municipality in proportion to the funds generated within their jurisdiction, after accounting for allocation of the one hundred and ten percent (110%) return to DACs, to the extent feasible.

Equitably Distribute Benefits: Indicators

- Provide Disadvantaged Community (DAC) Benefits that are not less than 110% of the ratio of the DAC population to the total population in each WA (i.e., DAC Benefit Ratio) (%)
- Proportion of Municipal Program funds spent on new Projects or Programs (%)

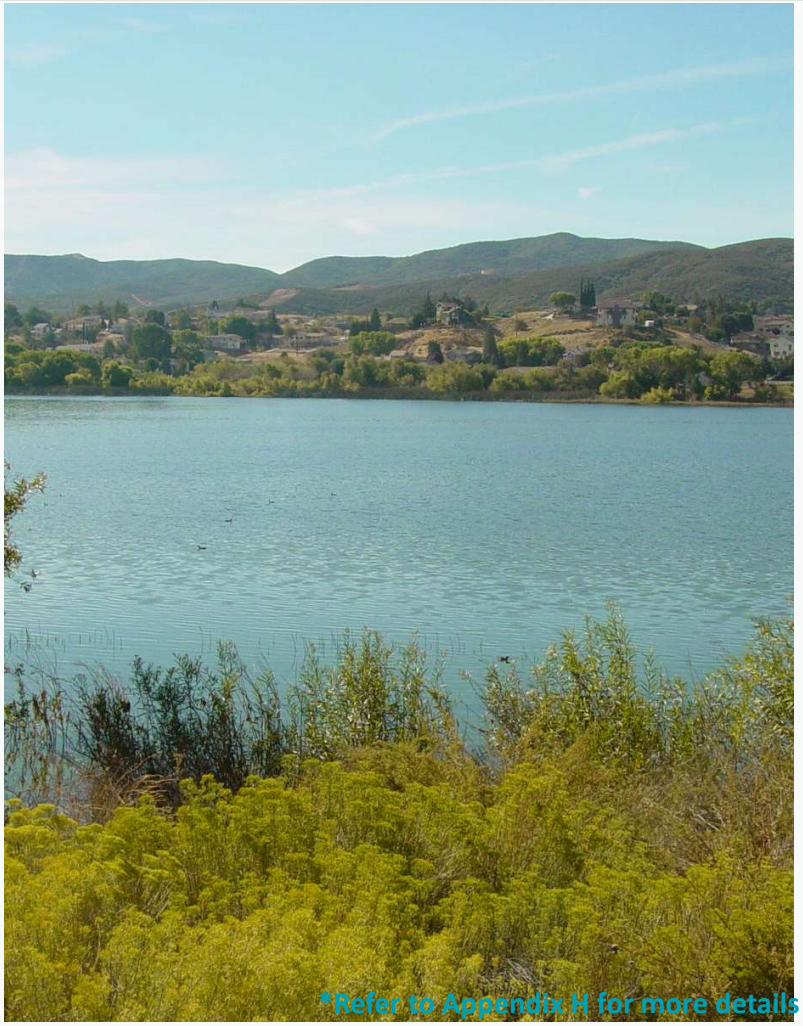
Table H-43 DAC benefit ratio target references and methods

Indicator	Benefit Ratio (%)
Key Efforts & Countywide Targets Referenced	• SCW Program Ordinance 16.05.D.1.d; LINK
WA Characteristic Data Source(s)	• LA County DAC Areas; LINK • 2020 Census Tracts; LINK
Methods & Considerations	• The target for the "DAC Benefit Ratio" is determined using 110% of the proportion of DAC population to total population

*Refer to Appendix H for more details

Equitably Distribute Benefits: SCR

- Focus on maintaining natural features, improving livelihoods of underserved people and school-age children and teens, and deepening connections with research institutions, community-based organizations, and businesses that specialize in NBS.



*Refer to Appendix H for more details

Equitably Distribute Benefits: SCR Baselines

DAC Benefit Ratio (%) Baselines

Table H-41 *Equitably Distribute Benefits* baselines

Watershed Area	Equitably Distribute Benefits *(Goal J, K)* Baselines		
	Source: Reporting Module; calculated		*C = (A x 50 + B x 10) / 60*
	A	B	C
	DAC Water Quality Benefit Ratio (%)[1]	DAC CIB Ratio (%)	DAC Benefit Ratio (%)
SCR	90%	48%	55%

[1] Zinc load reduction used for SCW Program DAC Water Quality Benefit Ratio calculation.

Proportion of Municipal Program Funds Spent on New Projects or Programs (%) Baselines

Table H-42 *Equitably Distribute Benefits* baselines

Watershed Area	Equitably Distribute Benefits *(Goal J, K)*		
	WA Characteristics		Baselines
	Source: Reporting Module		*C = A / B*
	A	B	C
	Eligible Municipal Program Expenditures[1] for New Activities ($)	Total Eligible Municipal Program Expenditures[1] ($)	Proportion of Municipal Program Funds Spent on New Projects or Programs (%)
SCR	$8.43M	$12.9M	65%

[1] Counts eligible expenditures reported in FY20-21 to FY23-24 Municipal Annual Reports and allocations reported in FY24-25 Municipal Annual Plans.

*Refer to Appendix H for more details

Equitably Distribute Benefits: Baseline – DAC Benefit Ratio Methodology

Table H-40 DAC benefit service areas

Benefit	Default Project Service Area
• Creation, enhancement, or restoration of parks, habitat, or wetlands; • Enhanced or new recreational opportunities; • Improved public access to waterways	Variable based on Project size[1]: • < 3 acres (small) = ¼ mile • 3 to 10 acres (medium) = ½ mile • 10+ acres (large) = 2 mile
• Greening of schools (creation of green space, habitat, and/or tree canopy)	2 miles
• Reducing local heat island effect and increasing shade; • Increasing number of trees and/or other vegetation at the site location that will increase carbon reduction/ sequestration and improve air quality	¼ mile
• Water Quality Benefits	Auto-calculated based on Project's Watershed Management Group
• Improved flood management, flood conveyance, or flood risk mitigation	TBD/user-defined[2]
• Other Community identified benefits	TBD/user-defined[2]

[1] Informed by Accelerate Resilience Los Angeles Working Group recommendations.
[2] To be defined and data collection tools adapted through future Watershed Planning efforts.

Project Scale:

$$A.\,Project\ DAC\ WQ\ Benefit\ Ratio = \frac{Project\ Pollutant\ Load\ Reduction}{Total\ SCW\ Program\ Project\ Pollutant\ Reduction\ in\ WMG}$$

$$B.\,Project\ DAC\ CIB\ Ratio = \frac{DAC\ Population\ in\ Project\ CIB\ Service\ Area}{Total\ Population\ in\ Project\ CIB\ Service\ Area}$$

$$C.\,Project\ DAC\ Benefit\ Ratio = \frac{A * 50 + B * 10}{60}$$

WA Scale:

$$A.\,WA\ DAC\ WQ\ Benefit\ Ratio = \frac{Total\ Pollutant\ Load\ Reduction\ by\ SCW\ Program\ Projects\ Benefiting\ DACs\ in\ the\ WA}{Total\ SCW\ Program\ Project\ Pollutant\ Reduction\ in\ the\ WA}$$

$$B.\,WA\ DAC\ CIB\ Ratio = \frac{Total\ DAC\ Population\ in\ Project\ CIB\ Service\ Areas\ across\ the\ WA}{Total\ Population\ in\ Project\ CIB\ Service\ Areas\ across\ the\ WA}$$

$$C.\,WA\ DAC\ Benefit\ Ratio = \frac{A * 50 + B * 10}{60}$$

*Refer to Appendix H for more details

Equitably Distribute Benefits: SCR Targets and Needs – DAC Benefit Ratio

Table H-44 DAC benefit ratio WA characteristics and targets

Watershed Area	Targets	Baseline
	A = 110% x (DAC Pop. / WA Pop.)	*Calculated*
	A	--
	Required SCW Program DAC Benefit Ratio (%)	DAC Benefit Ratio (%)
SCR	12%	55%

*Refer to Appendix H for more details

Equitably Distribute Benefits: SCR Targets and Needs – Proportion of Municipal Program Funds Spend on New Projects or Programs (%)

Figure H-6. Proportion of Municipal Program funds spent on new Projects or Programs (%) targets

*Refer to Appendix H for more details

Equitably Distribute Benefits: SCR Strategies

Santa Clara River Watershed Area Strategies and Actions

Equitably Distribute Benefits

SCW Program Goals J, K

Watershed Area Needs (by 2045)

- ***at least 12%*** DAC Benefit Ratio (%)
- ***at least 70%*** Proportion of Municipal Funds Spent on New Projects or Programs (%)

Strategies	Action(s)		Who Should be Involved
6.1 Consider historic land use disparities and environmental justice metrics across the SCW Program area*	**6.1.1** Prioritize Projects and Programs in historically underserved communities and those with heightened vulnerability to climate hazards. Use the *Opportunity to Provide Benefits to DACs* and *Multiple Benefit Opportunity Across Planning Themes* layers to guide equitable Project and Program planning and implementation.	NEAR TERM	Public Works, WASCs, Municipalities, Project & Program proponents
6.2 Advance equity and prioritize new investments particularly in communities not currently served by a SCW Program Project or Program	**6.2.1** Prioritize implementation of high-impact water quality Projects and Programs (see strategy 1.1), especially in areas identified by the *DAC Benefit Opportunity* layer, to expand and enhance Water Quality Benefits for climate-vulnerable communities, DACs, and Municipalities.	NEAR TERM	Public Works, WASCs, Municipalities, Project & Program proponents
	6.2.2 In combination with 6.2.1., provide benefits to DACs that are not currently receiving CIBs from existing SCW Program Projects by leveraging the *DAC Benefit Opportunity* layer. Prioritize high-impact Projects and Programs located in areas with the greatest potential to deliver multiple benefits across Planning Themes, as identified in the *Multiple Benefit Opportunity Across Planning Themes* layer. *Recall that all SCW Program Projects and Programs must provide Water Quality Benefits.*	NEAR TERM	Public Works, WASCs, Municipalities, Project & Program proponents
	6.2.3 Municipalities are to ensure that at least 70% of Municipal Program funds received are spent annually on eligible expenses related to new Activities (i.e., Projects or Programs implemented on or after November 6, 2018), as specified in Chapter 18 - SCW Program Implementation Ordinance, Los Angeles County Flood Control District Code.	NEAR TERM	Municipalities

Equitably Distribute Benefits: SCR Opportunities

Table I-18. Provide Benefits to DAC opportunity data sources and analysis

Data Source(s)	Key Attributes	Opportunity Analysis & Considerations
SB535 DAC Area 2022	Extent of DAC boundaries	• Extent of SB535 DACs areas were spatially joined with SSI score to be classified into low, med, or high categories. • Areas with 0.25 miles walking distance from an existing SCW Program Project.
Social Sensitivity Index	Entries with "Low", "Med", or "High" in the SoVI_Third field name	
Walksheds Metrics and Monitoring Study (direct from Public Works)	Entries within 0.25 miles of a Project	

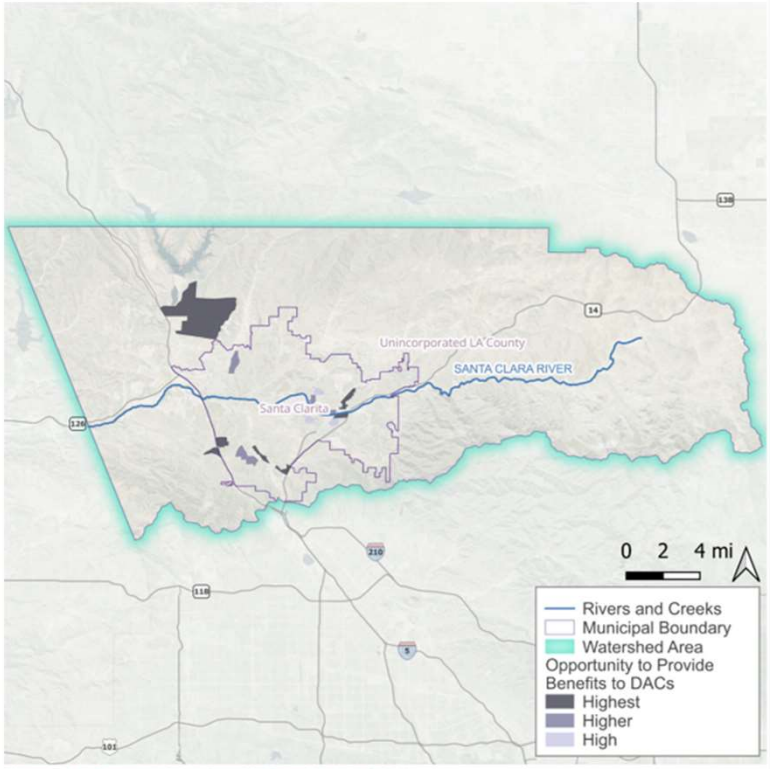


Figure I-11. Opportunity to Provide Benefits to a DAC

*Refer to Appendix I for more details

COMMUNITY INVESTMENT

Planning Theme:
Prioritize Meaningful Engagement

Prioritize Meaningful Engagement

Meaningful engagement is fundamental to the achievement of all Goals.

The SCW Program takes a collaborative approach to address the Los Angeles region's water resilience challenges.

The Initial Watershed Plans prioritize meaningful engagement and synthesize key efforts to date to inform WA characteristics, targets, and strategies that support strategic funding decisions and achievement of SCW Program Goals.

Prioritize Meaningful Engagement: Indicator

- All Projects to meet a minimum "level of achievement (good/better/best)" (%)

Prioritize Meaningful Engagement: NSMB Baselines

Table H-51. *Prioritize Meaningful Engagement* baselines and forecasts

Watershed Area	Prioritize Meaningful Engagement Indictor Baselines	
	Source: Regional and Municipal Program Project Data Gap	
	All Projects to Meet a Minimum "Level of Achievement" (%)	
	Level of Achievement for Community Engagement	Level of Achievement for Tribal Engagement
NSMB	43%	14%

*Refer to Appendix H for more details

Prioritize Meaningful Engagement: Target and Need

*Refer to Appendix H for more details

Prioritize Meaningful Engagement: NSMB Strategies

North Santa Monica Bay Watershed Area Strategies and Actions

Prioritize Meaningful Engagement

Watershed Area Needs
(by 2045)

100%
All Projects to Meet a Minimum "Level of Achievement"
(%)

Strategies	Action(s)		Who Should be Involved
9.1 Promote meaningful and sustained outreach and engagement through regional coordination and expertise	**9.1.1** Integrate findings from prior engagement efforts—such as the CSNA and other Countywide and local initiatives—into Project and Program-specific outreach strategies. Tailor engagement activities to reflect and acknowledge community-identified priorities, concerns, and aspirations. By building on existing input, this approach fosters trust, avoids redundancy, and ensures that engagement efforts are both responsive and relevant to the communities they aim to serve.	NEAR TERM	Project & Program proponents
	9.1.2 Utilize the SCW Program Engagement Calendar to identify and align with existing local and Countywide events, meetings, and outreach efforts. By coordinating participation in already-established community gatherings, Project and Program proponents and Watershed Coordinators can increase visibility, reduce outreach fatigue, and engage residents in familiar, trusted spaces.	NEAR TERM	Project & Program proponents
	9.1.3 Develop a centralized, user-friendly online platform—coordinated in partnership with Watershed Coordinators—to serve as a Clearinghouse for outreach and engagement resources and which will be integrated with the SCW Program Portal. This platform would include a directory of potential partnership opportunities, funding leads, and event calendars.	NEAR TERM	Public Works, Watershed Coordinators
	9.1.4 Conduct a comprehensive evaluation of the SCW Program Public Education and Community Engagement Grants Program to assess its effectiveness in advancing the Program's Goals. This evaluation should analyze the reach, impact, and inclusivity of funded initiatives. Based on the findings, consider extending and enhancing the Grants Program to support sustained, community-driven engagement and education efforts.	LONG TERM	Public Works, Watershed Coordinators
9.2 Develop and bolster existing resources and support for Project and Program-specific engagement	**9.2.1** Enhance the existing engagement assessment criteria, such as the Good/Better/Best framework, to ensure consistent and effective engagement across the SCW Program. This enhancement should involve developing clear metrics, incorporating feedback mechanisms, and providing guidance and trainings for proponents to apply the enhanced framework effectively.	NEAR TERM	Public Works, Watershed Coordinators
	9.2.2 Establish a roster of CBOs and non-governmental organizations (NGOs) that could support engagement and Project Concept development *(as suggested in the 2024 SCW Program Biennial Progress Report)*.	LONG TERM	Public Works, Watershed Coordinators
	9.2.3 If established (see 9.2.2), refer to the SCW Program's roster of CBOs and NGOs to seek technical support for Project Concepts as well as support with engagement, particularly in DACs.	LONG TERM	Project & Program proponents, Municipalities

Figure 5-25. Prioritize Meaningful Engagement: strategies and actions to address NSMB WA Needs and achieve Goals

Prioritize Meaningful Engagement: NSMB Strategies

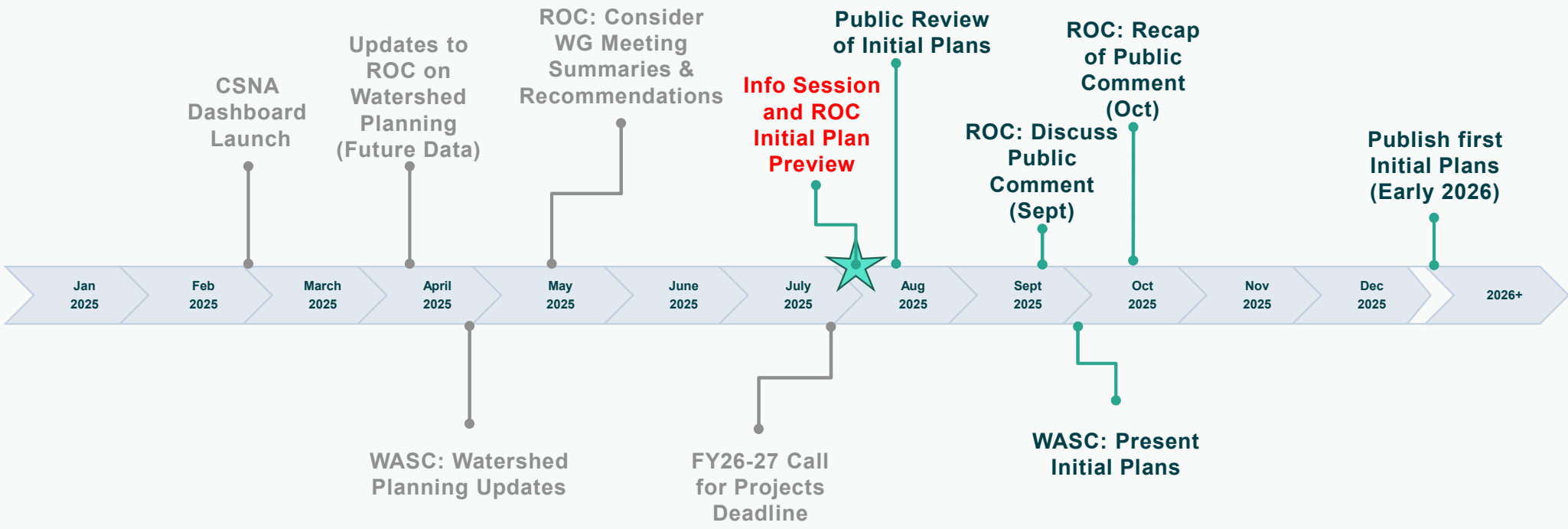
North Santa Monica Bay Watershed Area Strategies and Actions

Prioritize Meaningful Engagement

Strategies	Action(s)		Who Should be Involved
9.2 *Develop and bolster existing resources and support for Project and Program-specific engagement (continued)*	**9.2.4** Strengthen the role of Watershed Coordinators by utilizing their expertise in engagement, education, and capacity building to support the following activities: • Identify and communicate community priorities by analyzing CSNA findings to understand key community-stated priorities, concerns, and community-identified Project locations. Share these insights with the WASC and incorporate into the Strategic Outreach and Engagement Plans to inform Project and Program development and prioritization. • Facilitate coordination among Project proponents and Municipalities to identify synergies, address overlapping or nested Projects, and promote right-sized or co-planned Projects that maximize benefits and avoid conflicts. • Provide support and trainings for SCW Program Portal Tools (e.g., Planning Tool, Projects Module, Reporting Module) and to share best practices for meaningful engagement. This includes helping Project proponents and Municipalities understand and apply the Good/Better/Best engagement framework. • Organize collaborative forums, training sessions, and workshops to help interested parties navigate SCW Program processes and reduce participation barriers.	LONG TERM	Public Works, Watershed Coordinators
9.3 Promote fire-adapted communities through enhanced education and outreach	**9.3.1** Promote community workshops or engagement programs that explain how green infrastructure can support wildfire resilience.	NEAR TERM	Public Works, Watershed Coordinators
	9.3.2 Emphasize co-benefits of stormwater investments—like cooling, vegetation health, and fire safety—to increase public awareness and support.	LONG TERM	Public Works, Project & Program proponents
	9.3.3 Collaborate with fire agencies, emergency managers, and fire risk mitigation experts during Project implementation, especially when Projects are sited in wildland-urban interface or high-risk zones.	LONG TERM	Project & Program proponents, Municipalities

SAFE CLEAN WATER PROGRAM

SCWP Watershed Planning Timeline for 2025



Watershed Planning

Q&A - Part 2

Please use the chat to ask questions regarding the Technical Deep Dive of the Watershed Plan Planning Themes.

Questions and answers will also be distributed following the information session.

Thank you

QUESTIONS?

Contact:
watershedplanning@pw.lacounty.gov